



Advancing resource efficient and cleaner production in Ukraine

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. In essence, RECP is all about producing with fewer resources and minimizing environmental impacts while increasing overall productivity.

For **Small and Medium Enterprises (SMEs)**, the RECP methodology is an effective instrument in lowering production costs whilst improving their competitive advantage by applying environmentally friendly practices. The technical assistance and training provided to **SBK-Ozera, PJSC** under EaP GREEN outlined a RECP action plan. The RECP assessment then identified **13 RECP options**, out of which 2 were prioritized and successfully implemented. Additionally, the company continued identifying further opportunities after the project and integrated a new measure as part of the RECP action plan. The **3 RECP measures** reduced material consumption and the product's prime cost, reduced specific energy costs, and decreased air emissions.

SBK-Ozera-Slobozhany Construction Ceramics, PJSC **MANUFACTURING OF CONSTRUCTION MATERIALS**

Company overview

Address: Ozera village, Borodianskyi district, Kyiv oblast

Key products: Porous ceramic blocks

No. employees: 100

Main markets: Ukraine

Founding year: 2009



SBK-Ozera, PJSC is the largest plant of the SBK enterprise, and the first one to produce porous ceramic blocks in Ukraine. Cost-effectiveness and environmental friendliness are the key features of porous ceramics, which are used to build load-bearing exterior and interior walls, as well as interior partitions. The production capacity of the plant is 120 million bricks per year.

Benefits

Implementation of 3 RECP options

905,924 m³ of fuel saved/year

1,536,832 kWh of electricity saved/year

Emission reduction of 3,052 tonnes of CO₂-eq/year

Estimated cumulative economic savings of 398,374 EUR/year

Action implemented by:

The project's approach



The RECP assessment examined all production sites, and identified several opportunities from which the following three have been prioritized:

RECP option 1. Increasing products output. The output increase was reached by reducing the idle time and optimizing the pre-treatment process of raw materials before the burnout process. The use of installed capacity was improved, reducing losses and harnessing energy consumption to reduce specific cost per production unit. This also increased the profit of the company as there was a higher productivity and better use of resources.

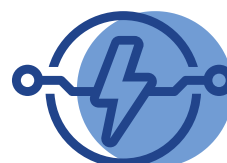
RECP option 2. Replacing the burnout additives. Before the introduction of this option, coal was used as a burnout additive. As an alternative, the waste generated from paper production was introduced. The implementation of this RECP option allowed the company to reach a positive environmental effect due to the change in the composition of emissions. It also brought forth the reduction of GHG due to partial replacement of fossil fuels during the brick burnout process. By replacing the burnout additives to cheaper ones, the cost of production also decreased.

RECP option 3. Replacing incandescent bulbs with LEDs. Replacing incandescent lamps with LEDs significantly reduced the energy costs of the lighting system. It also reduced the costs and environmental impacts associated with the disposal of fluorescent lamps.

Saving achievements

MAIN IMPLEMENTED ACTIONS

- Option 1:** Increasing products output
- Option 2:** Replacing burnout additives
- Option 3:** Replacing incandescent bulbs with LEDs



ECONOMIC KEY FIGURES

	Investment (Euro)	Saving (Euro/year)	PBP (years)
Option 1:	-	395,126	<1
Option 2:	-	2,495	-
Option 3:	587	753	0.8
Total:	587	398,374	-



RESOURCE SAVINGS

	Electricity (kWh/year)	Fuel (m ³ /year)
Option 1:	1,527,532	905,924 (natural gas)
Option 2:	-	-
Option 3:	9,300	-
Total:	1,536,832	905,924



The introduction of RECP has been part of the EU-funded programmes: **EaP GREEN** (2013-2017) and **EU4Environment Action** (2019-2022) executed by UNIDO. In this context, SBK-Ozera, PJSC joined the RECP training and assistance programme under EaP GREEN. Follow-up visits have been then conducted under the new Action to check the implemented RECP options after the EaP GREEN Programme ended. EU4Environment helps the six EaP partner 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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