



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-sized 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 **Young Ukraine, LTD** under the EaP GREEN Programme outlined a RECP action plan for the company team. The RECP options presented below led to the effective **(1) replacement of incandescent bulbs** and **(2) replacement of 22 wooden windows** with plastic ones. The incandescent bulbs were replaced with LEDs in the ceiling spotlights, and local lighting devices were installed next to the injection moulding machines. In 2017, the company also invested in improving insulation and reducing heat losses to prevent the use of extra sources of energy for indoor heating.

YOUNG UKRAINE, LTD FURNITURE PRODUCTION

Company overview

Address: 10 Industrialna Str., Pryluky, Chernihiv oblast

Key products: office chairs and components

No. employees: 32

Main markets: Ukraine

Founding year: 2004



Young Ukraine, LTD produces office armchairs, chairs, and related components. The current technology allows for the fabrication of products based on various materials (natural or artificial leather, fabric, as well as various fillers and frames). The company's main target market is domestic.

Benefits

Implementation of 2 RECP options

Payback periods of less than 1 year

Electricity reduction of 13,700 kWh/year

Emission reduction of 5.8 tonnes of CO₂-eq/year

*The enterprise requires regular monitoring over resources consumption both at the main production sites as well as in the operation of the auxiliary equipment; we should use these opportunities to increase the efficiency of the company; it is important to motivate our employees to invest in rational energy consumption, said **Yevhen Sapolovych, Director***

Action implemented by:

The project's approach



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

RECP option 1. Replacing incandescent bulbs with LED lamps to light up the production processes, and installing local lighting devices. The lighting in the area where the injection moulding machines operate was reconditioned with ceiling spotlights with incandescent bulbs of 250 W each. By replacing the incandescent bulbs with LEDs (20 W each), the electricity consumption was reduced by 14,100 kWh. The lack of sufficient illumination was compensated by installing local illumination devices with lamps of 10 W each. The implemented option resulted in a reduction of energy consumption of 13,700 kWh, and increased savings of 1,370 EUR/year.

RECP option 2. Replacing 22 wooden windows with plastic ones in the production facilities. The previous windows had a single glass package and had been significantly deteriorated over time. The damaged window frames and the lack of an operative heating system had a negative impact on the indoor environment and the working conditions of the employees. The company chose to reduce heat loss through the building envelope by replacing the wooden windows with double-glazed plastic ones. After installation, the indoor temperature increased, and the working conditions significantly improved.

Young Ukraine, LTD is ready to further increase its production levels and it seeks new ways to reduce the consumption of resources whilst improving the working conditions of the employees.

Saving achievements

Next steps

MAIN IMPLEMENTED ACTIONS

Option 1: Replacing incandescent bulbs with LED lamps to light up the production processes, and installing local lighting devices

Option 2: Replacing 22 wooden windows with plastic ones in the production facilities



ECONOMIC KEY FIGURES

	Investment (Euro)	Saving (Euro/year)	PBP (years)
Option 1:	165	1,370	0.12
Option 2:	2,070	-	-
Total:	2,235	1,370	-



RESOURCE SAVINGS

	Electricity (kWh/year)
Option 1:	13,700



As the overall production of office furniture is a material intensive technological process, and the company regularly accumulates large amounts of raw materials waste which are not properly accounted, it is important for the firm to introduce new approaches for waste management to guarantee a more cost-effective use of waste and the reduction of environmental risks. Young Ukraine, LTD also plans to focus on the optimization of the electrical power consumption (the cooling systems).

The cooperation with the RECP project team gave the company a positive and motivating outlook, and triggered the desire to inspect the facilities in-depth, especially with regards to the auxiliary production lines; also, we think of searching for more efficiency-related measures that would bring a reduction in the general waste generation of our company, said Yevhen Sapolovych, Director

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, Young Ukraine, LTD 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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