

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.

PREMIER SOCKS PE - LIGHT INDUSTRY



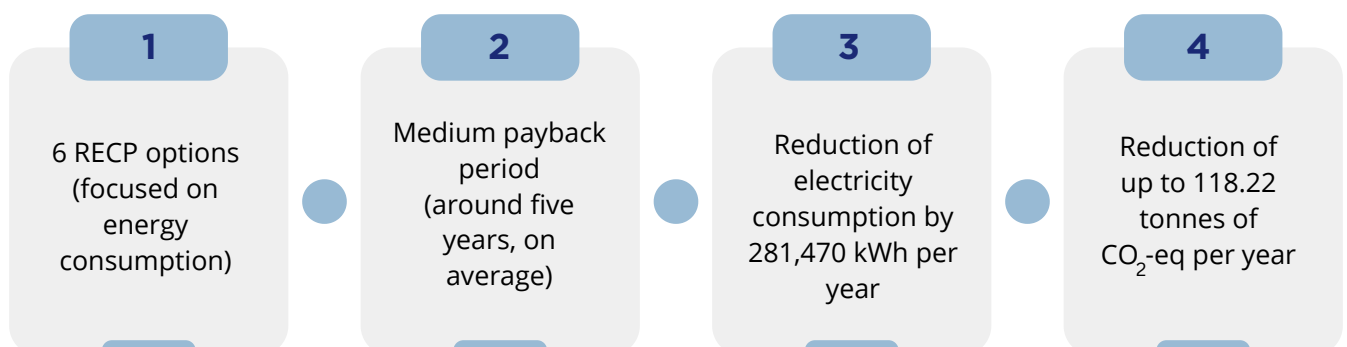
Company overview

Location: Poltava
Key products: hosiery products
No. of employees: 158
Exportation quota (%): 15
Founding year: 2011
Main markets: Ukraine, the EU, North America



Premier Socks, PE is a manufacturer of hosiery goods. The products range from designed socks for women, men, and children, all the way to stockings and tights. The products are widely popular in national stores, both under the company's own name as well as under the brand of its partners. In this sense, Premier Socks, PE cooperates with various trading networks, such as Jusk, Auchan, Metro, Eva, Watsons, Prostor, ATV, and Epicentr. Although only 15% of its total output is dedicated to exporting, the company successfully covers the market needs for the majority of the European Union countries. Motivated to improve the quality of its products and reduce operating costs, the company participated in the RECP Demonstration Project under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise conducted in 2023.

BENEFITS



Action implemented by:

The project's approach

The RECP assessment examined the production site and identified several RECP options, out of which six were prioritised, with the following three being described below. The suggested RECP recommendations included medium-cost measures:

RECP Option 1. Improving the compressor's efficiency in the compressed air system: This consists of optimising the temperature of the air inlet in the compressor, since every increase of the air temperature by 5-6 degrees Celsius results in an excess consumption of electricity by 1%. An additional suggestion is to use the ambient air for operating the compressor, especially during wintertime, to reduce electricity consumption by 2%.

RECP Option 2. Using the compressor's heat for the heating supply: This measure consists of using the heat released from the compressor to heat up the premises by installing a heating system for the coolant (water), instead of using electricity-powered heating.

RECP Option 6. Installing a photovoltaic (PV) solar plant: This measure consists of installing a 150kW grid-tied solar power plant that would reduce company's electricity bills and energy-dependence from energy providers.

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1	Improving the compressor's efficiency in the compressed air system
OPTION 2	Using the compressor's heat for the heating supply
OPTION 3	Replacing the fan in the aspiration system of knitting machines
OPTION 4	Optimising the lighting system
OPTION 5	Implementing an electricity metering system
OPTION 6	Installing a PV solar plant

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	/	712	/
Option 2:	19,900	7,200	2.9
Option 3:	3,174	213	14.9
Option 4:	/	420	/
Option 5:	6,750	12,675	0.6
Option 6:	92,000	21,000	4.4

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)/%
Option 1:	4,750/0.28
Option 2:	48,000/2.84
Option 3:	1,420/0.09
Option 4:	2,800/0.17
Option 5:	84,500/5
Option 6:	140,000/8.28

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)
Total:	118.22

“ Our company was interested to have a more resource efficient and cleaner production and get the employees familiar with the RECP methodology. Thanks to this project, we learned that monitoring and analysing our resource use should be an important step in our daily work, not only at the enterprise level, but also at the point of consumption, as this helps track resource inefficiencies. Thanks to the options developed by the RECP experts, we identified potential electricity savings, and our management intends to regularly raise awareness among employees about RECP, said the marketing deputy director of. Premier Socks, PE, Ms. Olena Babenko. ”

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Premier Socks, PE** joined the RECP Demonstration Project 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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