

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.

GOODVALLEY UKRAINE LTD - PRODUCTION OF LIVESTOCK FEED

Company overview



Location: Kopanky village (Ivano-Frankivsk oblast)

Key products: mixed feed for livestock

No. of employees: 32

Main markets: Ukraine

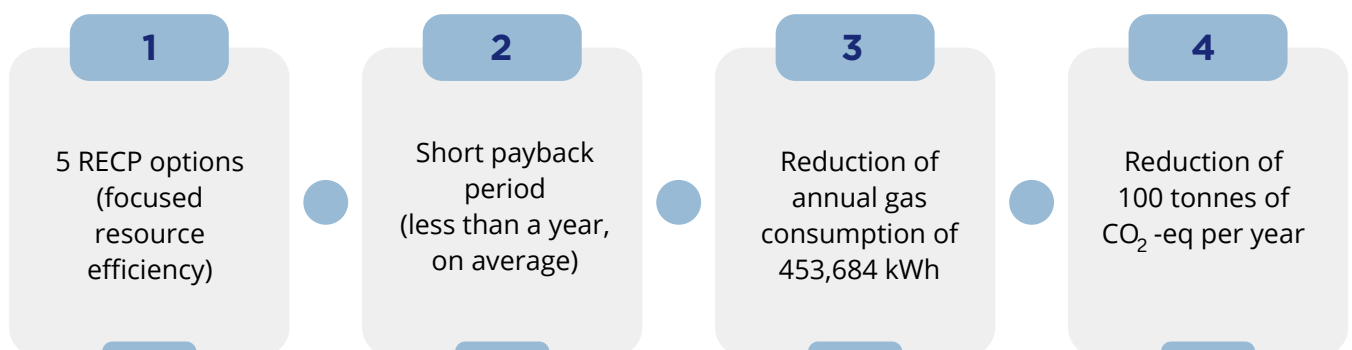
Founding year: 2004

Certifications: Global GAP (Good Agricultural Practice)



Goodvalley Ukraine Ltd. is a Ukrainian agricultural company with Danish ownership, and a subsidiary of Polish agricultural company, Poldanor SA. Its main activities include pig breeding, for which the company grows, harvests, stores, and processes its own grain crops (a full production cycle). The feed is only used to to cover the company's needs and support the pig farm. Motivated improve its resource efficiency and become more competitive on the market, 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 2023.

BENEFITS



Action implemented by:

The project's approach

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

RECP Option 2. Optimising the matrix overhaul interval. The optimisation of mixture moisture and the matrix overhaul interval would reduce material use, water, and natural gas. *To be feasible, this measure requires further research.*

RECP Option 3. Adjusting the boiler equipment burners: This would help adjust the burners to match the air supplied for gas combustion, and bring the boiler efficiency to the required level set by the manufacturer. It would also reduce excessive flue gas production, heat loss, and natural gas consumption.

RECP Option 4. An automatised system for steam production and consumption: The system would help to automatically control steam production based on the needs of the process equipment. It would significantly reduce the amount of excessive heat produced by the boiler equipment and, therefore, the generation of excessive condensate that is released into the environment. The measure would also lead to a reduced use of both water and natural gas.

RECP Option 5. Thermal insulation of the steam lines and steam distribution equipment: This measure consists of repairing the heat-insulating coating of the steam pipelines and distribution equipment. It would help decrease gas consumption by reducing heat losses.

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1	Optimising the mixture moisture content
OPTION 2	Optimising the matrix overhaul interval
OPTION 3	Adjusting the boiler equipment burners (implemented measure)
OPTION 4	An automatised system for steam production and consumption
OPTION 5	Thermal insulation of steam lines and steam distribution equipment

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	/	65,637	/
Option 2:	/	65,637	/
Option 3:	2,200	8,395	0.25
Option 4:	1,000	11,300	0.1
Option 5:	750	515	1.5

Resource savings

RECP OPTIONS	NATURAL GAS (KWH/YR)/%	WATER (M ³ /YR)/%	MATERIALS (TONNES/YR)/%
Option 1:	11,201/0.2	-2,231/-31.2	338/0.3
Option 2:	11,201/0.2	/	338/0.3
Option 3:	190,420/3.4	/	/
Option 4:	240,862/4.3	315/4.4	/
Option 5:	11,201/0.2	/	/

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)
Total:	99.9

“ Our company wanted to find opportunities to develop, improve resource efficiency, and become a competitive player in the market. In this sense, the RECP methodology proved to be more effective than the methodology we previously used, and the results of the analysis raised our awareness of material and energy flows. This also made it possible to adjust our plans over process control at the operational and administrative levels. In addition, the familiarity with the RECP methodology under EU4Environment prompted our management to conduct RECP training for staff at other production sites, said the director of the company, Mr. Marian Zaikin. ”

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Goodvalley Ukraine Ltd.** 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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