

Advancing resource efficient and cleaner production in Armenia

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.

“NOR HATIK BRGAHATIK” LLC - FOOD PRODUCTION

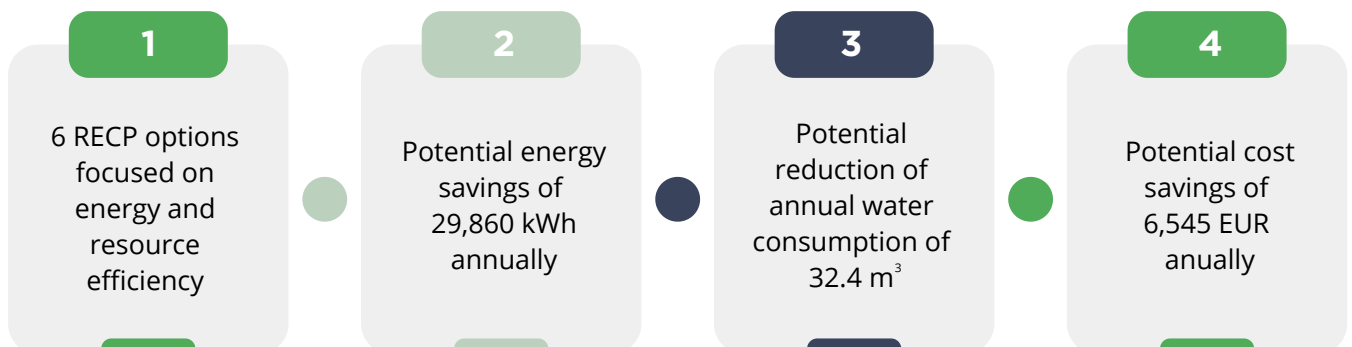
Company overview



Location: Shirak marz, Bavra, Ashotsk extended community
Key products: buckwheat (green and steamed), wheat groats, pea groats, barley groats, millet
No. of employees: 9
Main markets: Armenia, France, Germany
Founding year: 2016

The Bavra factory unites 28 cooperatives from the Shirak, Lori, and Aragatsotn regions. Together, they form the "Nor Hatik" cooperative. The company specialises in processing and packaging various cereals, including buckwheat, wheat, peas, and barley. Its market reach extends to various regions within Armenia, including Yerevan, as well as international destinations such as France and Germany. Motivated to address production costs and improve product quality, the company participated in the RECP Green Clubs project under EU4Environment (2019-2024). This publication details the company's experience reported after the assessment exercise conducted in 2024.

BENEFITS



Action implemented by:

The project's approach

The RECP assessment examined the production site and identified several RECP options, out of which the following six were prioritised:

RECP option 1: Equipment modification: This involves adapting the current equipment (steam boiler, auxiliary equipment) based on specifications forecasted for the production volumes and orders of steamed Buckwheat in the coming years.

RECP option 2: Installing photovoltaic (PV) solar panels: A PV system with a capacity of 7.5 kWp would be sufficient to cover the facility's needs, including the charging of the future EV. The annual generation of the PV station would be around 10.5–11.5 MWh.

RECP option 3: Utilising green buckwheat husk as fuel in briquette production: About 75% of the green buckwheat husk (or 4.5 t/yr) could be used in producing fuel for briquettes. Briquettes sells for 80,000 AMD/t, and the raw material could be sold for 100 AMD/kg.

RECP option 4: Utilising green buckwheat husk to produce orthopaedic pillows: About 75% of the boiled buckwheat husk (or 6.75 t/year), could be used for producing orthopaedic pillows (2.5-3 kg/pillow, at about 8,000 AMD each). The raw material could be sold for 120 AMD/kg.

RECP option 5: Purchasing an electric vehicle (EV)

RECP option 6: Improving the wastewater irrigation system: This measure would help reduce the treatment time for wastewater.

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1	Equipment modification
OPTION 2	Installing photovoltaic (PV) solar panels
OPTION 3	Utilising green buckwheat husk as fuel in briquette production
OPTION 4	Utilising green buckwheat husk to produce orthopaedic pillows
OPTION 5	Purchasing an electric vehicle (EV)
OPTION 6	Improving the wastewater irrigation system

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	24,000	92	-
Option 2:	5,625	1,018	5.5
Option 3:	0	1,071	-
Option 4:	0	1,928	-
Option 5:	33,000	2,428	13.6
Option 6:	0	8	-

Resource savings

RECP OPTIONS	WATER (M ³ /YR)	ENERGY (KWH/YR)
Option 1:	16.2	2,280
Option 2:	-	9,500
Option 3:	-	-
Option 4:	-	-
Option 5:	-	18,080
Option 6:	16.2	-

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (T/YR)	GENERAL WASTE (T/YR)
Total:	9.96	11.25

The introduction of RECP Green Clubs has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **“Brghatik/Nor Hatik” 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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