



Funded by
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Advancing resource efficient and cleaner production in Azerbaijan

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 is an effective means to 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.

LACHIN-1 LLC - CONSTRUCTION MATERIALS



Company Overview

Location: Garadagh region, Baku

Key products: plaster, lime, cement (300, 400, and 500 marks, and Galag cement for concrete plants)

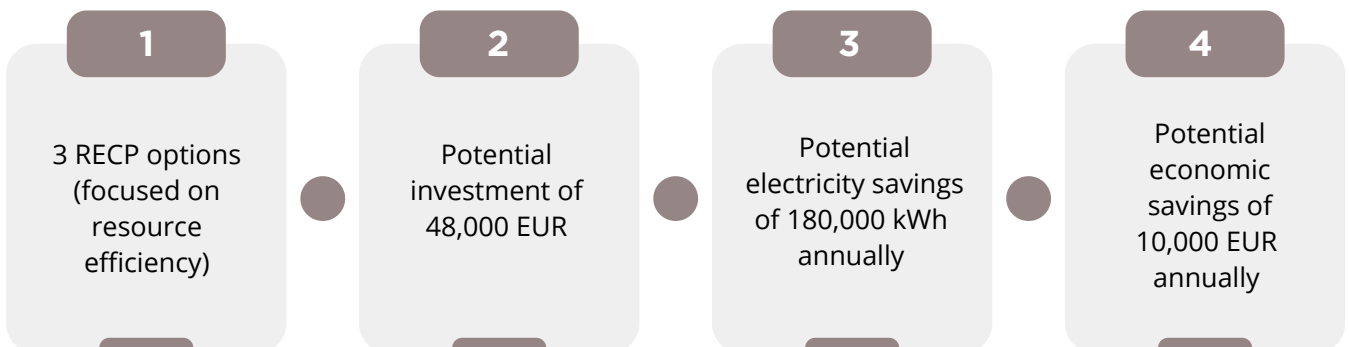
No. of employees: 21

Main markets: Azerbaijan

Founding year: 2016

"Lachin-1" LLC is a small enterprise producing different varieties of cement (grades 300, 400, and 500), as well as lime and plaster. The company does not produce any clinker. Divided into three sections (the oven dryer, the mill section for grinding, and the packaging area), all presenting a potential for improvement, the enterprise can produce up to 36,000 tonnes of cement per year. Motivated to address production costs and waste, the company participated in the RECP Demonstration 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 team examined the production site and identified several opportunities, out of which the following three were prioritized:

RECP option 1. Using a soft starter: The mill is currently connected to the network via a direct start, which results in a large starting current, voltage drops in the network, and increased wear on the electric motor. Hence, it was suggested to use soft starters to allow for a smooth increase in the torque on the motor shaft, mitigating these issues.

RECP option 2. Investing in a particles separator: Almost all the cement from the mill is returned for reprocessing, leading to additional electricity costs. The use of particle separators could efficiently separate large particles, sending back only those required for regrinding. This would reduce energy consumption and prevent cement dust from being released into the atmosphere.

RECP option 3. Investing in a filling machine: Currently, after filling the cement bags, the air is not effectively removed through a special perforation (resulting in cement being expelled with air). By installing filling machines, an accurate loading without cement loss would be ensured.

SAVING ACHIEVEMENTS

RECP measures

OPTION 1	Using a soft starter
OPTION 2	Investing in a particles separator
OPTION 2	Investing in a filling machine

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)
Total:	48,000	10,000

Resource savings

RECP OPTIONS	ELECTRICITY (KWH /YR)	WASTE (T/YR)
Total:	180,000	1,000

Total pollution reduction

RECP OPTIONS	CO ₂ -EQ (T/YR)
Total:	38.90

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Lachin-1 LLC** 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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