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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.

“MAHMUD TOPCHU K” LLC - CONSTRUCTION MATERIALS



Company Overview

Location: Baku

No. of employees: 50

Main markets: Azerbaijan

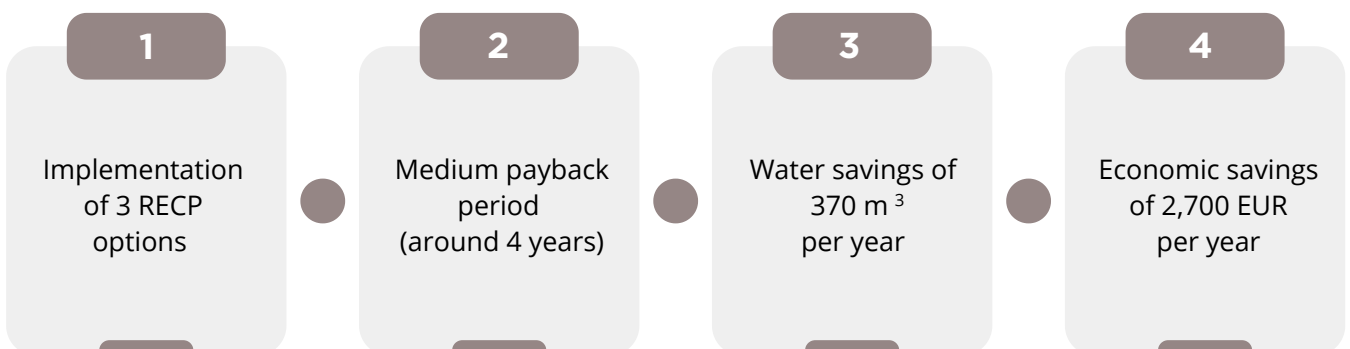
Founding year: 1994

Key products: decorative products, waterproofing materials, polystyrene tiles, bitumen emulsion



“Mahmud Topchu K” LLC was the first in Azerbaijan to start producing glass roofing felt in early 1994, a production it continues to this day. This glass roofing material is used in the construction of the Baku Metro and other new strategic facilities of national importance. The company also produces heat-insulating materials, including EPS (polystyrene), EKS, and glass wool-based products, which are resistant to moisture, heat, cold, and are lightweight. Additionally, it manufactures foam plastic of various sizes and densities. This is used for cladding building facades, reducing the weight of flooring between floors, soundproofing interior walls, insulating against moisture, noise, and temperature extremes, and for floor heating. Motivated to address production costs and water consumption, the company participated in the RECP 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 approach

The RECP assessment evaluated the production site and identified several measures, out of which the following three were prioritized and implemented by the company staff:

RECP Option 1: Addressing steam leaks: This measure consisted of repairing or replacing the pipe fittings to address steam leaks.

RECP Option 2: Insulating pipes: This measure entailed the recoating and insulation of the steam pipes.

RECP Option 3: Installing equipment to collect and recycle steam: This measure consisted of installing an automated vacuum station with a closed water supply cycle, designed to cool and remove residual moisture from foam blocks after molding. This system accelerates the production of foam plastic and fixed formwork while minimizing water waste. Additionally, the closed supply cycle facilitates the recovery of waste energy, enhancing overall efficiency.

SAVING ACHIEVEMENTS

RECP measures

OPTION 1	Addressing steam leaks
OPTION 2	Insulating pipes
OPTION 3	Installing equipment to collect and recycle steam

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	200	100	2
Option 2:	250	100	2.5
Option 3:	20,000	2,500	8

Resource savings

RECP OPTIONS	MATERIAL (T/YR)
Option 1:	185
Option 2:	185

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, “Mahmud Topchu K” LLC joined the RECP Clubs training and assistance 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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