



## 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.

## “MSHENEBELI-2019” LLC - ASPHALT PRODUCTION



### Company overview

**Location:** Mtskheta, Mtskheta-Mtianeti region

**Key products:** asphalt

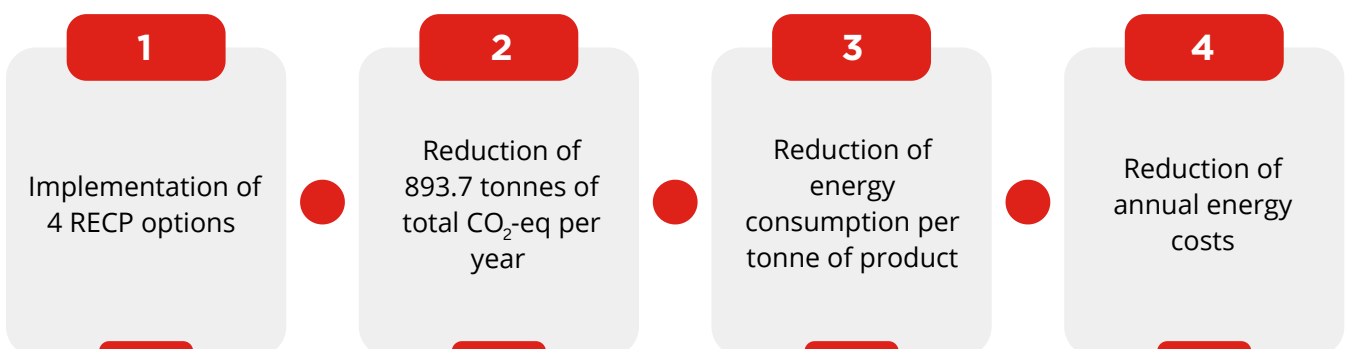
**No. of employees:** 6

**Main markets:** Georgia

**Founding year:** 2019

“Mshenebeli-2019” is a manufacturer of asphalt. Its staff was actively involved in the activities related to the RECP Clubs, including the training course on business environmental profile, energy efficiency, water efficiency and wastewater minimization, materials efficiency and waste minimization, the responsible use of chemicals, hazardous waste, and means to reduce emissions. The course resulted in the development of the RECP Action Plan which included four RECP options. Due to the pandemic, it was challenging for the enterprise to allocate internal financial resources and find investments or appropriate loans to implement the RECP measures. Motivated to improve resource efficiency and reduce energy consumption, the company participated in the RECP Clubs programme under EU4Environment (2019-2024). This publication shows the company’s experience reported after the monitoring exercise.

## BENEFITS FROM IMPLEMENTING RECP OPTIONS



# The project's approach

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

**RECP Option 1.** Replacing the existing, old air compressors with new, energy-efficient ones, and inspecting the compressed air pipelines to fix leakages. This would help reduce costs and the amount of CO<sub>2</sub>-eq emissions.

**RECP Option 2.** Covering the outside stored pebbles: this measure would help avoid the raw materials becoming wet, and hence save the energy consumed for drying.

**RECP Option 3.** The thermal insulation of the bitumen pipelines: this option would help save high amounts of energy currently consumed for the liquefaction of bitumen.

**RECP Option 4.** The installation of a fluidized bed combustion (FBC) device: a FBC is a combustion technology used to burn solid fuels. A bed of solid particles is said to be fluidized when the pressurized fluid (liquid or gas) is passed through the medium and causes the solid particles to behave like a fluid under certain conditions. This option would use biomass as an alternative fuel and reduce energy costs as well as CO<sub>2</sub>-eq emissions.

## SAVING ACHIEVEMENTS

### RECP measures

<b>OPTION 1</b>	Replacing the old air compressors with new, energy-efficient ones
<b>OPTION 2</b>	Covering the outside pebbles
<b>OPTION 3</b>	The thermal insulation of the bitumen pipelines
<b>OPTION 4</b>	The installation of a fluidized bed combustion device

### Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	3,000	1,911	1.6
Option 2:	5,000	5,206	1
Option 3:	5,000	5,206	1
Option 4:	50,000	104,125	0.5

### Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)
Option 1:	23,163
Option 2:	206,124
Option 3:	206,124
Option 4:	/

### Total pollution reduction

RECP OPTIONS	TOTAL CO <sub>2</sub> -EQ (TONNES/YR)
Option 1:	3.2
Option 2:	28.9
Option 3:	28.9
Option 4:	832.7

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Mshenebeli-2019** joined the RECP 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](http://www.eu4environment.org)

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