



## -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 instrument to lower production costs whilst improving the SMEs' competitive advantage and applying environmentally friendly practices. As well, RECP is considered an effective tool to introduce and promote Circular Economy principles among SMEs.

### "ASKANELI" LLC - beverage production -

#### Company overview

**Address:** Tbilisi

**Key products:** alcoholic beverages, primarily wine

**No. employees:** 55

**Main markets:** Georgia and Europe

**Founding year:** 1998

**Management systems:** ISO 22000



Founded by the Chkhaidze brothers, **"Askaneli" LLC** (former "Capital Club" LTD) is an important alcoholic beverage producer in Georgia. The company owns hundreds of hectares of vineyards, two winemaking facilities in Kakheti and Tbilisi, and a fruit distillery in Guria. In addition to producing over 60 denominations of wine, it also makes aged brandy, chacha, and brut. "Askaneli" is also one of the largest enterprises in the country, being amongst the top three wine producers thanks to its winemaking ratings for vine farming and wine production. Its 55 employees work in a well-equipped environment, using modern technical installations (wine and cognac spirit reservoirs, bottling lines, and distilleries). In 2017, the company produced 215,000 litres of spirit, for which it needed 126,000 m<sup>3</sup> of natural gas, 227,400 KWh of electricity, and 11,000 m<sup>3</sup> of water. Motivated to boost energy efficiency, reduce waste in the production processes, and, in turn, decrease the generation of wastewater, CO<sub>2</sub> and combustion gas emissions, the company joined EaP GREEN in 2015. This publication shows the company's experience reported after the monitoring exercise conducted in 2020, five years after the programme ended.

#### Benefits

- Implementation of 2 RECP options (focused on energy efficiency)
- Short payback period for the required investment (approximately one year)
- Reduction of water consumption per tonne of product: 100%
- Reduction of thermal energy consumption per tonne of product: 6%
- Energy savings that generated a reduction of 15.2 tonnes of CO<sub>2</sub>eq/year

Action implemented by:



## The project's approach

During the **RECP monitoring**, the production site was examined and several RECP options were identified, out of which the following two were prioritized and gradually implemented by the company staff. All suggested RECP recommendations included low and medium-cost measures, whilst focusing on improving the company's resource usage:

**RECP option 1. Returning the condensate to the steam boiler.** As the old steam distribution system constantly required fresh water and the used steamed water was lost in the sewage system, to avoid thermal losses from the steam and extend the lifetime of the boiler, a steam recovery system was installed with a thermally insulated tank. This, in turn, allows the device to avoid steam losses and recirculate the used water.

**RECP option 2. Creating a closed system for the water to distil alcohol.** In order to decrease water consumption and reuse the wastewater in a closed circle, a closed circulatory system was installed.

## Saving achievements

### RECP MEASURES

- Option 1:** Returning the condensate to the steam boiler  
**Option 2:** Creating a closed system for the water to distil alcohol



### ECONOMIC KEY FIGURES

	Investment (Euro)	Saving (Euro/year)	PBP (years)
Option 1:	2,615	3,800	0.7
Option 2:	34,421	32,300	1.1
Total:	37,036	36,100	



### RESOURCE SAVINGS

	Water (m <sup>3</sup> /year)	NG (kWh/year)
Option 1:	1	75,448
Option 2:	10	508,411
Total:	11	583,859



### TOTAL POLLUTION REDUCTION

	CO <sub>2</sub> -eq (t/year)	Wastewater (m <sup>3</sup> /year)
Total:	15.2	1,073

The introduction of RECP has been part of the EU-funded programmes: **EaP GREEN** (2013-2017) and **EU4Environment Action** (2019-2022) executed by UNIDO. In this context, "Askaneli" LLC joined the RECP training and assistance programme under EaP GREEN, and was monitored under EU4Environment. Follow-up visits have also been conducted under EU4Environment, to check on the implemented RECP options after the EaP GREEN Programme ended. 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)

## Company insight

With the completion of the RECP assessments, the company continues to increase its production capacity. As well, in the near future, LLC "Askaneli" also plans to increase the quality of its products, increase the general awareness of its staff, and improve the management system in terms of energy, resource use, and the generation of waste.

*The company was motivated to join the RECP Demonstration Project to tackle its high energy consumption and energy costs. Before the Project, two key challenges the company struggled with were energy efficiency and wastewater management. The main lesson it learned as a result of participating in the RECP Demonstration Project was to commit to periodically upgrade its technology and to boost awareness raising within the management team. Another added value brought forth by the RECP experience was the confidence for LLC "Askaneli" to work to improve the quality of its production and increase production capacity, said Mr. Zaza Shoshitashvili, Chief Engineer*



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