



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 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.

Lusia Food - Food production -

Company overview

Address: 2013, Lori Marz, Vanadzor Tigran Metsi Ave., 8 Building

Key products: convenience food (mainly meat products): beef cutlets, beef steak, chicken and mushroom pancakes, chicken cutlets, chicken ishli-kufta, chicken Kiev (Kiev-style cutlets), curd pancakes, dolma with grape leaves, khinkali, kupati, meat pancakes, pork steak, pelmeni, etc.

No. employees: 10

Main markets: Armenia

Founding year: 2005



"Lusia Food" started off in 2005 as a food catering service, when a women entrepreneur undertook the challenge of creating a new and specialized service for social events, different than the traditional Armenian food services. The innovative and high-quality "buffet" services designed by Ms. Lusine Baratyan steadily built demand and gained the customers' trust. In 2016, the family entrepreneurship scaled up investments in the value chain by starting the production of semi-finished food and opening a sale point. Considering its size, the company's outstanding efforts granted it the "Company of the Year in the Production of Semi-Finished Products" national recognition and the "Quality Mark" prize in 2017. Currently, Lusia Food continues to innovate as it recently launched a new service to train personnel in table design, etiquette, and buffet organization. Motivated to achieve more energy-efficient production, the company participated in the RECP demonstration project under EaP GREEN (2013-2017). This publication shows the company's experience reported after the monitoring exercise conducted in 2021, four years after the programme ended.

Benefits

Given its size, when "Lusia Food" joined the RECP project, its baseline (production area) was very small. However, the project successfully embedded the principles of resource efficiency (reflected in the 2021 monitoring of the improvement of key performance indicators in energy consumption)

- Reduction of electricity consumption by 9.3 % per kg of processed products
- Reduction of natural gas by 8% per kg of processed products
- Reduction of waste, and reuse of external waste

Action implemented by:



The project's approach

The RECP assessment examined the production site and identified several RECP options. The company then participated in training sessions to create the capacity for the better use of energy, water, and raw materials. The programme's experts conducted specialized visits to help "Lusia Food" identify practices and strategies to implement resource efficiency in its operation and growth plans. The following five RECP measures have been implemented:

- 1. Improved management of energy supply:** the company changed its electricity tariff to a two-tier metering system to better distinguish between daytime and night-time consumption.
- 2. Improved isolation of windows and glazed surfaces:** this led to a reduction of heat exchanges and their subsequent energy losses in the internal and external environment. The new facilities were then covered by thermal insulating films which reduced the energy consumption by 10-15 %.
- 3. Installation of a natural gas boiler for hot tap water and other heating:** whilst extending its premises, the company opted for natural gas heating instead of electric.
- 4. Reuse of waste biomass as fresh forage for livestock:** in addition, the company is seeking cooperation with other partners to implement compost (here, investment in equipment is needed).
- 5. Renovation of the old, worn-out, main production equipment:** the company has been immersed in a renovation process. The old energy consumers such as refrigerators have been replaced by new ones to prepare products more efficiently and reduce energy consumption.

Saving achievements

MAIN IMPLEMENTED ACTIONS

The company implemented five out of the eight identified RECP measures. However, pending measures are still in the pipeline. As the initial facility just began its operations at the time when the project started, the direct cost-saving estimations for that baseline remained small. Nevertheless, "Lusia Food" is committed to adopting RECP as these measures will prevent the increase in operational costs and more energy-demanding production.

ECONOMIC KEY FIGURES

Potential of energy and waste cost savings:	945 USD/year
Potential investment:	6,180 USD

RESOURCE SAVINGS

Potential energy reduction:	9,200 kWh/year
Potential waste reduction:	2.6 tonnes/year



Other opportunities

At the time of monitoring, "Lusia Food" was already remodelling its production plant, so it started embedding the RECP measures in its expansion plans. In this process, it expects to achieve environmental benefits through the principles of minimization, neutralization, recycling, and management of resources and waste. Among other steps, the following RECP options (identified during the RECP project) are under consideration once the plant is fully renovated: the incorporation of solar water heating for domestic and production needs; the installation of a small on-grid PV system on the building's roof to substitute approximately 40 % of the annual electricity consumption; and production of compost from the biomass waste. As an added value to its services, "Lusia Food" also plans to dedicate all needed efforts in order to become environmentally friendly. The implementation of more advanced technological processes, improved equipment, incorporation of new practices (such as timely maintenance and waste recovery), the future use of renewable energy - have all resulted in a positive change in the company's mindset and will be used to improve its marketability and competitiveness, to open new production lines, and to access new markets in larger cities and across the country.

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, "Lusia Food" 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 the implemented RECP options after the EaP GREEN Programme ended. EU4Environment helps the six EaP partner 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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