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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.

HELIND ENERGY LLC - ENERGY SYSTEMS



Company Overview Location: Baku Key products: sale and installation of alternative energy systems No. of employees: 34 Main markets: Azerbaijan, USA, Turkey, and China Founding year: 2017 Certifications: ISO 9001

"**Helind Energy**" LLC specialises in selling and installing alternative energy sources, as well as offering related advisory services. The company also provides 3D printing, electronic products, and UPS systems. With a primary focus on the alternative energy sector, it aims to supply renewable energy to mountainous areas, farms, and many others, using RECP methods. Motivated to address production costs, 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.



The project approach

The RECP team examined the production site and identified several options, out of which the following four were prioritised by the company:

RECP Option 1. Modernising the metal plasma cutting unit: By adding a new gas dusting unit, the suction system of the metal plasma cutting unit can be upgraded. This improvement would enhance worker health and well-being while also reducing the company's environmental impact.

RECP Option 2. Increasing the number of solar panels: Expanding the solar panel installation would decrease reliance on traditional electricity sources, thereby reducing greenhouse gas emissions.

RECP Option 3. Installing thermal insulation on the roof: Adding thermal insulation to the roof would minimise heat loss during winter and reduce cooling costs in summer.

RECP Option 4. Installing a heat pump: Installing a heat pump would further decrease electricity consumption from traditional energy sources.

SAVING ACHIEVEMENTS

RECP measure

OPTION 1	Modernising the metal plasma cutting unit
OPTION 2	Increasing the number of solar panels
OPTION 3	Installing thermal insulation on the roof
OPTION 4	Installing a heat pump

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Total:	3,000	990	3.03

Total pollution reduction

RECP OPTIONS	CO ₂ -EQ (T/YR)			
Total:	3.6			
Resource savings				
KESU	urce savings			
RECP OPTIONS	electricity (kwh/year)			
RECP OPTIONS Total:	electricity (kwh/year) 16,326			

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, Helind Energy 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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