Solar energy for all: electricity, hot water, cold air

PROJECT TITLE	**Research and promotion of highly efficient energy generation through trigeneration by using solar renewable resources for getting electricity, heat and cold and purchasing of equipment**
IMPLEMENTATION PERIOD	11.12.2020 – 10.12.2022
ORGANISATIONS INVOLVED	Institute of Energy of the Republic of Moldova (MD); Technical University "Gheorghe Asachi" of Iași (RO); Iasi County Council (RO)
PROGRAMME	Romania – Republic of Moldova ENI CBC 2014-2020
TOTAL BUDGET	170.808,00 €

Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION

A trigeneration system that simultaneously produces electricity, hot water or cold air, using solar energy for all. This is the technical solution developed in the frame of the project. The photovoltaic – thermal (PVT) system – consisting of 42 photovoltaic panels – was installed on the roof of the spa resort "Bucuria-Sind" in Vadul lui Vodă (MD). It is equipped with capillary mats filled with antifreeze liquid to produce hot water with storage tank and an installation for converting thermal energy into cold air for cooling spaces. This technical solution increases the efficiency of the solar energy to 44%, compared to 14% for the separate use of PVT. The proposed solution intends to be replicated in a smaller scale trigeneration system at the Răducăneni medical unit in Iași (RO) in order to confirm its capacity to operate in different conditions. The partners aim to disseminate the new knowledge and experience, also via patent, to promote the further development of technology in the cross-border area.

The information provided is subject to changes during the project's lifetime. Please refer to the project's website for the latest updates.

ENERGY EFFICIENCY

Project co-funded by the European Union

ENVIRONMENT