

ZenH Balkan

The project aims to facilitate the implementation of the EPBD by defining the characteristics and Standards for Zero Energy Hospitals in the South Balkan region.



This project is funded by the European Union



ZenH Balkan - Towards Zero Energy Hospitals in the Balkan Region

The project aims to facilitate the implementation of the EPBD by defining the characteristics and Standards for Zero Energy Hospitals (ZenH) in the South Balkan region.

Hospital buildings are considered complex systems as they are hosting several energy intensive functions (HVAC under strict comfort conditions, high hot water demand, Kitchen facilities, etc). There is considerable work in EU on the definition of near Zero Energy residential buildings, offices and hotels but not for hospital buildings.

The expected outputs

- Produce benchmarks and design guidelines for ZenH
- Improve the technical capacity of professional groups and government officials towards the ZE buildings notion
- Prepare detail analysis and test the benchmark models for upgrading 7 hospital buildings into ZEB.

Methodology

- Energy data of hospitals will be collected.
- The energy audits will be performed to obtain actual data and determine the operational characteristics of the selected hospital.
- Identification of the most prominent Energy Efficient (EE) and Renewable Energy Sources (RES) technical solutions applicable to the energy consumption profiles of hospitals.
- Benchmarking of EE & RES technologies based on hospitals energy systems (e.g. heating, cooling, lighting) will be elaborated.
- Modular prototypes that can be adopted by other hospitals but also by other building categories with similar characteristics will be developed.
- Economic assessment on specific EE & RES technologies will be prepared.
- Training material that will assist hospitals' technical staff and designers to understand the basic concept of design methodologies and applicability of EE & RES technologies will be produced.



Partnerships

Democritus University of Thrace, Department of Environmental Engineering (Greece)

ALBAFOREST (Albania)

Association Sofia Energy Centre (Bulgaria)

The Cyprus Institute (Cyprus)

CeProSARD (FYROM)

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