## **ENERGY in BUILDINGS 2024**

Date: Place:

Event:

November 22-23, 2024 Athens, Hellas





## **George Konstantopoulos**

Dipl. Electrical Engineer and Computer Science, MSc Environment and Development, Phd Candidate Energy Policy, NTUA



Title:	Researcher in National Technical University of Athens, Greece	
email:	gkonstantopoulos@epu.ntua.gr	•
Presentation title:	A Socially-Oriented Reuse of an Abandoned Building as a Near Zero Energy Consumption Building for Senior Housing	ly

The present paper focuses on vacant buildings that remain abandoned within densely built urban areas. It seeks historical data to identify the reasons for their abandonment and to explore potential opportunities for restoration and reuse. Centered on the principles of sustainable urban management, it investigates relevant management policies, primarily in a European and Greek context, and aims to establish strategic guidelines for their reuse and reintegration into the city.

The research includes a specific case study of an existing abandoned building, proposing intervention scenarios for its reactivation. Initially, an assessment of the building's urban and technical characteristics is conducted. Based on the findings, a socially oriented usage scenario is defined, along with a clear plan for its environmental impact in the surrounding area. The building program is developed according to the functional requirements of the new use, in compliance with existing urban planning regulations.

An architectural pre-study is also conducted to address these objectives. The building is evaluated for its energy classification according to the relevant regulations (KENAK) and reassessed to verify the outcomes of the proposed interventions. The construction work required for both the comprehensive renovation and energy upgrade of the building is costed using detailed pricing tables and estimates. Budget tables are also prepared for investment costs in equipment and operational costs, including personnel salaries and service costs. These elements, alongside projected annual revenues for the proposed enterprise, are assessed to evaluate the overall sustainability of the study.

Finally, a comprehensive approach to the results of the case study is presented, along with an assessment of potential risks and opportunities for the project.

Short CV:

George Konstantopoulos is a PhD candidate and Research Associate at NTUA's Decision Support Systems and Management Laboratory. With a diploma in Electrical Engineering and a focus on energy policy, he has 15 years of experience in energy planning and environmental issues. He collaborates with municipalities on green transition projects and participates in various national and European research initiatives.

**ENERGY in BUILDINGS 2024** 

Date: November 22-23, 2024
Place: Athens, Hellas





CV:

Event:

George Konstantopoulos is a Research Associate and PhD Candidate at the Decision Support Systems and Management Laboratory, School of Electrical and Computer Engineering (ECE), National Technical University of Athens (NTUA). He holds a diploma in Electrical Engineering (University of Patras) and postgraduate studies in "Environment and Development" (NTUA). Research area on the field of energy policy decision support with a focus on local and regional energy planning.

He has 15 years of experience in energy and environmental issues and has worked in the private and public sector as a planner and technical consultant in energy saving, renewable energy and local development projects. As part of his professional engagement, he has collaborated with Municipalities and Regions to support the maturation of green transition projects. He has participated in several national and European research projects (e.g. H2020, LIFE, INTERREG etc.) in the fields of energy and environmental policy, energy planning and smart city design.