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"Understanding Positive Energy Districts: Case-Studies Analyses for Replication"

The transition to Positive Energy Districts (PEDs) is becoming a pivotal aspect of sustainable urban development, driven by the need to decarbonize urban areas and enhance energy efficiency through innovative technologies and integrated planning. PEDs integrate renewable energy production, efficient energy use, and sustainable urban design to reduce greenhouse gas emissions and create resilient urban environments. Despite the growing recognition of PEDs, the need for replicable methodologies, case studies, and collaborative learning remains high to ensure successful adoption and scaling across different contexts.

The **IEA EBC Annex 83 Summer School** is hosted by the Department of Engineering of the University of Palermo and supported by the Centre for Sustainability and Ecological Transition of the same university. The summer school is designed provide participants with a comprehensive understanding of PED principles and practices through theoretical sessions, case study analyses, and interactive workshops. Taking place from **Monday, June 16, 2025**, to **Friday, June 20, 2025**, at the University of Palermo, this program will feature international experts from the IEA EBC Annex 83 and from the University of Palermo who will guide participants through an exploration of PED methodologies, technologies, and policy frameworks.

The main summer school topics are summarized below in a non-exhaustive list:

- **Introduction to PEDs**: Understanding the fundamental principles and benefits of PEDs, including their role in advancing sustainable urban development and achieving energy transition goals.
- Case Studies Analysis in Diverse Contexts: Exploration of a wide range of climate solutions and PED case studies across different geographical, political, and economic contexts. Participants will analyze various approaches to implementing PEDs, considering diverse regional conditions, urban planning strategies, and technological solutions, and discussing the challenges and opportunities for replication in different settings.
- **Policy and Urban Planning:** Discussion on the policies and planning frameworks that facilitate PED implementation, along with insights into potential barriers and solutions.
- **Practical Application**: Workshops and roundtable discussions to enable knowledge exchange, practical application of concepts, and networking among experts and participants.

The **PED Summer School** is open to PhD students from different backgrounds including but not limited to energy engineering, building engineering, environmental engineering, architecture, planning. With a maximum of 35 participants, the program offers a unique opportunity for intensive learning, engagement, and interaction.

## **Date and Venue:**

June 16–20, 2025 University of Palermo (UNIPA), Palermo, Italy

## **Contact Information:**

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