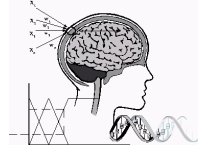




# International

Innovation in Knowledge Based and Intelligent  
Engineering Systems



## INVITED SESSION SUMMARY

**Title of Session:**

Positive Energy Districts (co-organised by IEA EBC Annex 83 and COST Action CA19126/Positive Energy Districts European Network)

**Name, Title and Affiliation of Chair:**

Francesco Reda, Dr. VTT Oy (Technical Research centre of Finland)

Co- Chair:

Maria Beatrice Andreucci, Prof. Dr. "Sapienza" University of Rome (Italy)

**Details of Session (including aim and scope):**

Positive Energy District (PED) is an emerging urbanization concept to enable and support the transition towards carbon neutral cities and communities. The research and development of PED is characterized by multisectoral dimensions. It embraces a synchronized and parallel development of instrumental building & district technologies, new economic paradigm, tailored business models, social acceptance and integration in built environment strategy. The PED definition is still in a conceptualization phase, and further research is therefore needed. The scope of the session is to contribute to the PED conceptualization phase and aims to promote valuable contributions on:

- technological and economic viability of the PED, including evaluation framework and value creation proposition;
- energy solutions for PED concepts, including distributed & centralized renewable energy systems, for new or renovated districts;
- resilience of PEDs and evidence of how PEDs are able to handle various types of failures in the local energy system;
- Practical challenges and barriers for PED emergence and development;
- Integration of PED in existing built environment;
- Energy transition pathways towards PED;
- Simulation tools and optimization methods for PED assessment and planning;
- Experience from construction, operation, and monitoring of PED demos.

We kindly invite to submit high-quality papers on one or more of the abovementioned topics related to positive energy districts (PED). The sessions is co-organised by IEA EBC Annex 83 and COST Action CA19126/Positive Energy Districts European Network.

**Annex 83**



**PED  
EU  
NET**

**Main Contributing Researchers / Research Centres (tentative, if known at this stage):**

*Tuominen Pekka (VTT, Finland), Ala Hasan (VTT, Finland) Steinar Grynning (SINTEF, Norway), Xingxing Zhang (Högskolan Dalarna, Sweden), Vicky Albert-Seifried (Fraunhofer, Germany), Laura Aelenei (LNEG, Portugal), Ursula Eicker (Concordia University, Canada), Genku Kayo (Tokyo City University, Japan), Andrea Gabaldón Moreno (CARTIF, Spain), Francesco Guarino (Palermo University, Italy), Dorian Frieden (Joanneum Research, Austria), Adriano Bisello (EURAC Research, Italy), Niki Gaitani (NTNU, Norway), Florencio Manteca González (CENER, Spain), Neumann Hans-Martin (AIT, Austria), and more. The Annex83 has about 70 participants.*

**Website URL of Call for Papers (if any):**

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