



CAT-ference 2019 session proposal

Title: Renewable energy potentials in post-socialist cities & urban environments

Description:

Many different reasons all over the planet cause climate change. The global CO₂ and greenhouse emissions are too high to achieve the goals defined during several Conferences of the Parties to the United Nations Framework Convention on Climate Change. Besides the transport and infrastructural sector, the energy supply for heating and cooling is an important field to decline the ecological footprint of its emissions. The application and development of Renewable Energy Solutions (RES) for the energy supply within an urban environment is a challenging topic as the heating demand depends on many different parameters like building type, level of insulation, building use, consumer's behaviour, etc. Furthermore the urban environments provide difficulties in term of available space, installation space as well as varying regulations and legislations for the application of RES technology.

In post-socialist cities after transition the energy demand for heating is still mostly covered by coal, gas or other fossil fuels which emit a whole slew of greenhouse gases (Buzar 2007, Jorgenson et al. 2017). Parts of the energy supply are covered by electricity produced within nuclear power stations which are running without CO₂ or methane emission, however it is still not a sustainable energy source as it is not clear how to deal with the nuclear waste. Additionally, as the result of post-socialist legacies, already existing energy and heating supply systems prevent users from switching to a different sources of energy (Herrero and Ürge-Vorsatz 2012, Bouzarovski et al. 2016).

There are several technical approaches for RES within urban environments for retrofitted buildings and new buildings. Additionally there are new approaches like smart grids for electricity or low temperature district heating. The urban structure of post-socialist cities provides several pros and cons for RESs although they are different between the state-of-the-art technologies available on the market.

This session welcomes contributions that address topics that include, but are not limited to:

- Renewable energy solutions (RESs) for cities & urban environments;
- RES technologies for urban environments and there potential in post-socialist cities;
- Energy consumption and optimization possibilities;
- District heating solutions – Advantage for post-socialist cities?

Studies on RES and examples of use with advantages especially within a post-socialist urban environments are particularly encouraged.

Please submit max. **300-word** outline of your contribution to the session, including a preliminary title and **3-4 keywords** by **Friday, April 10th 2019**.

Session Organisers:

David Bertermann
FAU Erlangen-Nuremberg, Germany
Email: david.bertermann@fau.de

Johannes Müller
FAU Erlangen-Nuremberg, Germany
Email: johannes.j.mueller@fau.de

Nikola Jocić
FAU Erlangen-Nuremberg, Germany
Email: nikola.jocic@fau.de