

Conference theme: Transitions to Sustainability

SESSION 16: LOCAL INNOVATION IMPULSES AND THE TRANSFORMATION OF THE ENERGY SYSTEM

Deploying smartness in energy grids through a co-design approach at the urban district level

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Smart grid is a process of defining and developing intelligent control technologies that promotes a specific actor network configuration in the energy chain in order to coordinate production and consumption in a self-balancing energy system. Conflicting interests and objectives among actors involved make difficult to realign and bring together providers, intermediary managers and end-users: then, despite the plethora of R&D and demonstration projects, only little has been achieved and smart grids are very weak in performance.

At the same time, the integration of information technologies and sensors allows the collection of an increasing amount of data: finding good places and roles for data and sensors is a key challenge to deal with if the deployment of smartness in energy systems has to be achieved. Following this idea, in this communication the results of a qualitative research centred on a district heating system will be discussed. Fifty interviews and six focus groups have been carried out in Turin (Italy), in order to mapping the features of the human actants, the current as well as the imagined technical devices, the relations linking all of them with each other, the problematizations they are carrying on.