

# **The reciprocity of space and energy: Perspectives on energy transitions and decentralization: past, present and future**

**Delft University of Technology, 23-25 January 2019**

## **Call for papers**

Debates about the post-oil energy transition raise questions about the appropriate forms of spatial organization from energy production to consumption. Throughout history, changing sources of energy have shaped urban and regional landscapes. Energy transitions and changing reciprocal relation between energy and space have influenced decentralization theory and practice revolving around distribution or dispersing functions, powers, and people away from a central location. This conference asks: How do decentralization concepts and energy systems intersect both in theory and spatial practices? Investigating the role of energy in urban decentralization provides new insights into planning history and help develop a sustainable future.

The conference addresses the history of energy transitions and its repercussion on evolving ideas of decentralization in theory and practice. The idea of decentralization as a principle for urban planning has evolved over time as a result of changing technologies and political, economic, social and environmental interests. As a result of the industrial revolution, the emergence of new patterns of energy production, transformation, and consumption and the new discipline of urban and regional planning, the form and function of cities has changed extensively. The oil age allowed both for the emergence of energy flows at a global scale and for functional zoning within cities and regions. The 1970s oil crises and the political, economic and even environmental consequences resulted in a shift from fossil fuels to nuclear as well as renewable energies, each having their own spatial and technical requirements and challenges. Spatial shapes created in the past shape decisions of the future, often hindering the transition to a new energy source. By focusing on energy transitions and its reflection on evolving decentralization concepts during the twentieth century, the conference seeks to develop new methods of addressing the reciprocity of energy and spatial configuration for the future. The conference consists of three thematic sessions:

### **Session 1: Evolving concepts of decentralization of energy**

Throughout the 20th century, architects, planners, economists, and politicians repeatedly proposed decentralization as a way to restructure societies and their spaces. The role of energy in these proposals has not been explored sufficiently. This section therefore studies the theory of decentralization and the practice of spatial planning in light of its intersection with energy (from production, storage, transportation and consumption). Main question: How have the respective agendas of planners and energy actors converged in decentralization theories? How and what narratives did the diverse involved actors used to promote their ideas?

### **Session 2: Spatial scenarios of evolving decentralized energy system**

The industrial revolution with centralized centers of energy production facilitated the emergence of decentralized urban patterns. By focusing on various case studies of landscapes of energy systems, this section explores the ways in which spatial planning practitioners, engineers, politicians, and other stakeholders acknowledge, react to and plan for energy transitions. Main question: How has the design profession facilitated and co-shaped, through its intervention, the functional implications of changing fuels? How strong is the impact of energy on the planning discourse and vice versa?

### Session 3: Lessons for post-oil future

Following the examination of evolving decentralized energy systems in theory and practice (session 1), this session aims to analyze the role of past theories and practices for the spaces of the future energy transition. It argues that urban strategies and practices of the past continue to shape the capacity of designers, urban planners, engineers, humanities scholars, policy makers, and other stakeholders to both imagine and shape the post-oil future. Main question: How do contemporary projects for energy systems acknowledge and translate premises of urban form? What can planners and architects do to negotiate the transition?

This interdisciplinary conference is the third and final in a series of conferences on the theme of decentralization and planning *decentralisation201718.wordpress.com*. The two earlier ones were organized and funded by universities in Grenoble November 2017 and Milan November 2018 and respectively concentrating on the theoreticians of decentralization and the conceptual tools mobilizing decentralization. Selected papers from the three conferences will be published in three open-access edited volumes through TU Delft Open/BK Books.

The abstracts (300 words maximum), plus 5 key words, written in English, should be sent before **the 28th of September 2018**, with a short bio (1 page), to this address: [decentralization2019@gmail.com](mailto:decentralization2019@gmail.com)

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