

Special Session (SS19) on:

The spatial dimension of energy transition policies, practices and technologies

Organizers:

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The aim and scope:

Transition processes towards sustainable energy futures require policy changes and innovations at multiple levels across the energy landscape. Production processes, uses, and energy conservation are interrelated policy spaces (Gu et al., 2014), which together move regions closer to their socioeconomic and ecological sustainability targets.

The extant literature has already delved into the spatial effects of these policies, with contributions ranging to spatial neighbor effects of diffused renewable energy technologies, to the effects of conservation policies and behaviors within regions. Nevertheless, insufficient attention has so far been paid to the role of territorial characteristics in explaining the impact of transition policies, practices, and technologies on energy efficiency in different geographical and institutional contexts (Stoeglehner et al., 2011). In fact, it can be argued that the knowledge related to energy best practices in energy transition processes and policies is only imperfectly public, and therefore diffuses with a lag in regions that are geographically or technologically far from the technological frontier (Keller, 2004).

This special session will host benchmark works on the spatial dynamics and spatial effects of energy transitions, from conservation policies to those fostering adoption of new technologies, across multiple global regions. The sessions aim at presenting a cohesive body of policy findings and propositions for fostering sustainable transition processes throughout their interlinked spaces. We welcome theoretical and empirical contributions especially related, but absolutely not limited to the following themes:

- Space-specific policies and best practices on energy efficiency;
- Geographical, institutional, and social-cultural features affecting the space-specific impact of energy efficiency measures;
- Spatial lock-in and peer effects in the adoption of energy efficiency technologies;
- Policy and/or technological regional spillovers;
- Spatial patterns in the adoption of energy efficiency technologies.

The topic of this special session fits well the focus of the RSAI World Congress on the spatial dimension of technological transformations, while the crowd of regional scientists guarantees an ideal setting for gathering useful feedback on the scientific results presented at the session.

References

Gu, A., Teng, F., and Wang, Y. (2014). "China energy-water nexus: Assessing the water-saving synergy effects of energy-saving policies during the eleventh Five-year Plan", *Energy conversion and management*, 85: 630–637.

Keller, W. (2004). "International technology diffusion", *Journal of Economic Literature*, 42 (3): 752–782.

Stoeglehner, G., Niemetz, N., and Kettl, K. H. (2011). Spatial dimensions of sustainable energy systems: new visions for integrated spatial and energy planning" *Energy, Sustainability and Society*, 1(1): 1–9.

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