Call for Papers for a Special Issue on

Spaces of transformation: energy transition, social innovations and cultural perspectives

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Scope

The energy transition is considered one of the key challenges of the 21st century. It requires far-reaching transformations in the areas of energy production, use and infrastructure, which also touch social, cultural and spatial dimensions (Schippl/Grunwald/Renn 2017, Becker/Klagge/Naumann 2021). In this context, cultural dimensions refer to deeply embedded socio-cultural structures, for example, planning cultures, understood as institutional arrangements consisting of formal and informal routines, norms, and values that shape local planning processes (Reimer 2013), as well as to conflict cultures, in which divergent governance styles and normative expectations are negotiated in spatial decision-making (Koelman/Hartmann/Spit 2018), and finally, to energy cultures, which encompass the collective practices, beliefs, and institutionalized interpretations through which energy production and consumption are culturally embedded and socially meaningful (Strauss/Rupp/Love 2013; Pfister/Schweighofer 2018; Glück 2018). At the local level in particular, it is clear that the implementation of the energy transition depends not only on technological innovations, but also on the way in which these are anchored in specific social and cultural contexts (Radtke 2015; Devine-Wright/Batel 2017; van Veelen/Haggett 2017). In the current debate, it is increasingly recognised that planning cultures, local governance structures, participation and acceptability are decisive in determining whether and how global goals of the energy transition can be translated into practice (Local Energy Consulting 2020). This special issue addresses these aspects and invites you to take a look at the diverse interactions between local, regional, national and also global visions, local realities and cultural dynamics.

Research Gap

In recent years, there has been a growing interest in social and spatial science issues in energy research. Transformation processes, including the emergence and handling of conflicts and evaluation in the context of equitable spatial development, are being discussed. For example, Radtke and Scherhaufer (2022) analyse conflicts in the course of the energy transition

primarily from an institutional and movement-related perspective, Bridge and Gailing (2020) focus on the spatial-political dynamics of new 'energy spaces', Quitzow/Canzler/Grundmann et al. (2016) analyse the German energy transition process from a cross-sectoral perspective and Krüger/Eichenauer/Gailing (2022) place struggles for just energy futures at the centre of the debate, particularly through critical perspectives on global power relations, postcolonial structures and social movements.

What is largely missing from these discussions to date, however, is a systematic examination of the regional, cultural and historical deep structures that characterise concrete planning processes on the ground – not only as a factor of resistance, but also as a productive resource for a locally anchored, just and resilient energy transition. The socio-spatial meanings of landscape, identity and historically evolved energy cultures have hardly been systematically integrated into research on planning practice to date.

Although participatory processes and the roles of civil society actors are frequently addressed (e.g. Buzogány/Scherhaufer 2022; Krüger 2022), this is usually done at an abstract level of test or policy research. A targeted connection of transdisciplinary planning practice with socio-cultural deep structures – as Kelly and Mbah (2024) argue in terms of an energy transition governance of co-transformation and Mbah and Kuppler (2021, 2024) conceptually describe as a place-sensitive long-term governance approach – thus represents a central research gap.

Of particular relevance is the question of how regional energy cultures, spatial identities and subjective attributions of meaning can be integrated into regional and local land use planning processes in order to understand local requirements and needs as an active component of a spatially sensitive planning transition. Many current land-use conflicts related to wind farms, solar energy or grid infrastructure suggest that challenges are not primarily technological but deeply tied to the social and cultural context (Renn/Sager/Schweizer-Ries 2014; Devine-Wright/Batel 2017). A recent case in Germany starkly illustrated this: In one planning region, nearly 440,000 objections were submitted during the amendment of a regional wind energy plan – a scale that clearly signals high local engagement and resistance, often rooted in perceptions of landscape identity, participation deficits and spatial injustice (Faißt 2024). In many rural regions, the emergence of new land use claims – particularly for wind energy, biogas, or photovoltaics – is also leading to spatial tensions that extend beyond technical or environmental concerns. As Weith, Prossek, Weddige et al. (2022) point out, such developments

are often accompanied by planning-related inflexibilities, institutional ambiguities, and governance challenges (Gailing/Röhring 2015). This highlights the need for research that explicitly connects energy transition planning with locally embedded institutional settings and spatial justice considerations.

Meanwhile, innovative participatory models and social innovations are emerging to address these challenges. For instance, community energy cooperatives, co-design approaches and regional stakeholder networks offer potential for more inclusive, context-sensitive planning. Nevertheless, these approaches remain fragmented and insufficiently integrated into mainstream planning practice.

To summarize, there is a lack of integrative approaches that systematically incorporate spatial heterogeneity and socio-cultural specificities into the governance of the energy transition. While technical and regulatory frameworks are continuously refined, key questions remain unresolved. This special issue therefore focuses on the following questions:

- **Local governance and stakeholder networks**: How do regional stakeholder constellations – including administration, civil society, economy and politics – shape the planning and implementation of local energy transition projects? Which stakeholder structures, process dynamics and institutional settings promote or hinder the integration of local perspectives?

- **Regional participation cultures and social innovations**: Which new forms of participatory planning, civil society self-organisation or cooperative models are emerging in response to the spatial challenges of the energy transition?

- **Spatial differentiation and planning justice**: How can differences between urban and rural areas, between ‘old’ and ‘new’ energy regions or between infrastructurally disadvantaged and favoured areas be systematically integrated into planning processes?

- **Technology adaptation in cultural space:** How do or might regional identities, historical energy cultures and cultural landscape images influence the integration of

technological solutions such as wind power, solar parks or smart grids?

- **Cultural dimensions of conflicts and consensus**: Which cultural values, narratives and normative models characterise conflicts or learnings from best practice examples of land use and the energy transition can be observed, and how can they be transformed or integrated into constructive consensus-building?

- **Social diversity and energy perception**: How do social milieus, value orientations or regional everyday experiences affect the perception, participation requirements and acceptability of energy projects?

By linking these topics with the local and regional level or on-site energy transitions, the special issue aims to contribute to an in-depth analysis of the cultural, social and spatial dimensions of these transformations and at the same time critically reflect on the interactions between (global)/national goals and regional/local realities.

To summarise, so far there has been a lack of integrative approaches that systematically incorporate spatial differences in socio-spatial, cultural and historical terms into planning practices of the regional and local energy transition. While technological and regulatory factors are increasingly being optimised, the question of how deep social structures, such as local identities, energy cultures or spatial perceptions, can be specifically integrated into planning and participation processes remains unanswered. It is precisely the application of such regional and cultural differences to practical planning tasks which culminate in different s participation requirements, conflict management necessities and acceptability criteria that requires in-depth research. Only through a spatially sensitive and socially embedded consideration of these aspects can a socially robust and sustainable as well as context-sensitive effective implementation of the energy transition succeed.

Aim

The aim of this special issue is to better understand and shape the role of cultural, social and spatial dynamics in the regional and local implementation of the energy transition. It will bring together theoretical and empirical contributions that present innovative perspectives and case studies. Contributions with European case studies are explicitly welcome in order to broaden the perspective and highlight cross-border dynamics. Particular attention will be paid

to the integration of transdisciplinary approaches that contribute to practice-oriented solutions and recommendations – with benefits for science, politics/planning practice and society alike. Innovative methodological approaches, in particular mixed methods approaches and spatially sensitive qualitative methods, are explicitly welcome.

Please send us a 300-word paper proposal in English or German by 31 October 2025. Initial feedback and notification of acceptance or rejection will be sent before 1 December 2025. The deadline for submission of full papers for peer review is 1 March 2026.

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