

# Governing Energy Landscapes

## The need for a long-term, place-sensitive perspective

Dr. Sophie Kuppler, Dr. Melanie Mbah

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Institute for Technology Assessment and Systems Analysis (ITAS)



<https://www.badische-zeitung.de/horben/riesterer-die-energiewende-wird-kommen--60747894.html>; <https://www.mz-web.de/landkreis-anhalt-bitterfeld/osternienburger-land-plaene-fuer-neue-windkraftanlagen-vorgestellt-24543656>

# Why Long-Term Governance?

- Background: nuclear waste disposal (Kuppler & Hocke 2018)
  - Who can take decisions a few hundred years from now?
  - How to ensure knowledge transfer?
- Long-term governance (LTG) as an approach for discussing institutionalisation processes within different fields of technology that have long-term effects
  - In governance networks socio-material practices are established, which are only in parts visible in form of law or other regulations
- Responsible institutions are embedded in sociotechnical contexts that cannot be reliably regulated
  - Dynamic governance network with innovation potential but also non-intended consequences (cf. Haus 2010)
- General question: How to ensure that future developments regarding a technology and its governance remain oriented at public welfare?

# Why LTG for Renewable Energies? I

Criteria for Technologies requiring LTG (cf. Czada 2016)	Renewable Energies
Implementation changes society or the environment irreversibly	New energy supply system
A stop in control would cause disadvantages or potential harm to society or the environment	Reliable energy supply needed
The possibilities of regulation are limited as it is uncertain how the sociotechnical system will react to the implementation of a technology	Many different actors involved at many different levels (local, regional, national, global); resource supply
Regulation is aimed at public welfare	Aim: carbon-neutral, reliable energy supply

## Why LTG for Renewable Energies? II

- Energy transition as societal transformation is taking place over several social generations
  - Sociotechnical transformations necessary, which affect the energy sector as well as the public (cf. Büscher / Sumpf 2015).
  
- Local / regional interests and expectations regarding energy technologies not necessarily the same as public interest / expectations regarding a reliable carbon-free energy supply system
  - What leads to a resilient local energy landscape does not necessarily contribute to a resilient national or even global carbon-free, reliable and fair energy supply (cf. Böschen et al. 2017)
  
- How to change a running system and at the same time be able to counteract any unwanted side-effects (cf. Czada 2016)?
  
- How to ensure a successful energy transition without neglecting individual interests in the long-term?

# The Role of Place for Renewable Energies

- Stronger differentiation in space and scale  
(various places in periphery and centres ↔ large-scale and micro-generation)
- Places are characterized by particular settings
- Transformation of landscapes and social changes
- Meaning of places might change and have effects on place-identity and therefore influence actions of groups and communities
- Contestation and conflict possible if political power is exerted by external actors
- „The social meaning of renewable energy technologies [...] varies considerably depending on the geographical scale of their deployment as well as the manner or mode in which they are deployed (public utility, private supplier, community, etc.)“ (Bridge et al. 2013, 338)
- New patterns of uneven development or continuation of particular imbalances

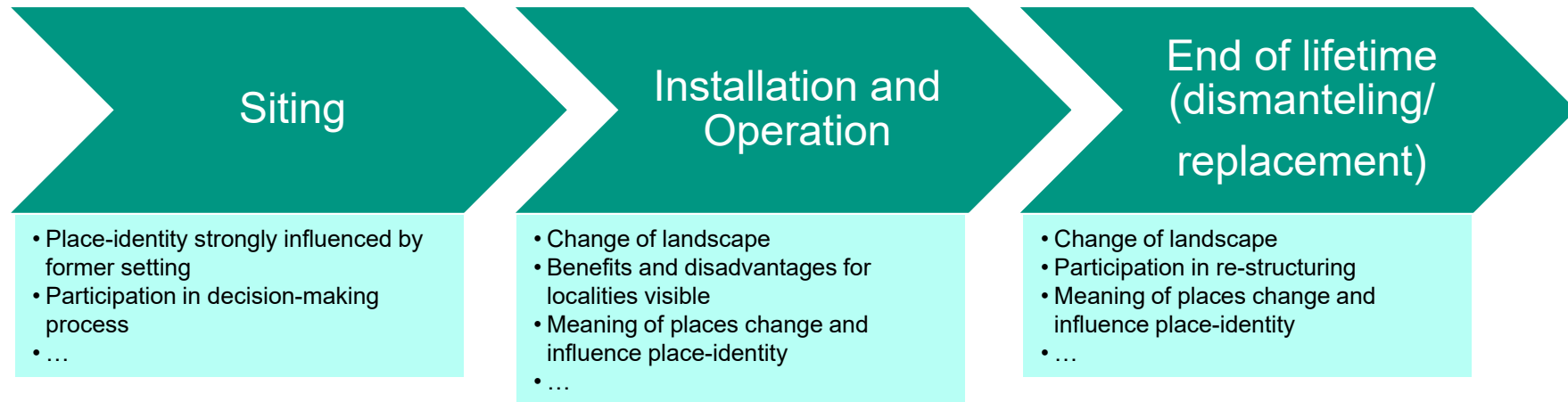
(Cf. Gailing/Laibenath 2017; Bridge et al. 2013; Llewellyn et al. 2017)

# Why Place-Identity / Place Attachment Matters

- Collective identity might contribute to a specific innovative place which is characterized by openness for change
- Common rootedness of people involved helps generating trust and credibility
- „New energy landscapes might be plausible where they demonstrate ‚placeness‘ and where stories can be read of ‚endeavour, solidarity, enterprise, community and purpose‘.“ (Llewellyn et al. 2017, 826)
- Common interest of renewable energy technologies might help form a shared meaning of place
- Concepts for future investments in the infrastructure of places influence meanings positively
- Narratives are a tool to better understand place-identities
  - Narratives are individual and collective at the same time
  - Result from cognitive individual and collective communicative processes
  - Influence strongly place-identities, which have positive impacts on engagement and participation
- Engagement and participation as key for long-term governance
  - Otherwise institution-building could lead to oblivion and delegation of responsibility in society

(Cf. Mbah 2017; Mbah et al. submitted; Llewellyn et al. 2017; Süsser et al. 2017)

# Three Phases of Technology Implementation



- In each phase, a technology is attached with specific meanings, which might change over time
- Affected landscapes alter their meaning, too (e.g. Kühne 2018)
- Different actors can be included / excluded in decision-making processes in all three phases of technology implementation
  - Meanings attached to landscapes can be used for securing / altering power relations (Leibenath&Linz 2018)

# Governing Energy Landscapes in the Long-Term

- Public demand to participate in siting has been widely acknowledged among policy-makers
  - BUT: Still lacks in implementation in many cases
  
- Several reasons why public participation should not stop after siting has taken place:
  - Many local / regional as well as national / global effects only become visible after a technology has been (widely) implemented
  - Continuous public interest can contribute to functioning checks and balances (cf. Kuppler 2017)
  - Development of narratives as well as a change of place-identities take time



## Institutional Tasks in a LTG

- Responsible institutions need to ensure a successful energy transition in the long-term while not neglecting public interest in general and at many different localities.
  
- Requirements for a LTG-institution:
  - Technical expertise
  - Strong interfaces with the public
  - Ability to take quick decisions in situations in which unwanted side-effects occur
  - Ability to deliberate and take consensual decisions regarding questions of long-term regulation
  
- LTG-institution needs to be embedded in a system of checks and balances especially as the national state is itself actor in conflicts regarding energy installations (cf. Kühne 2018)

## Conclusion

- Many more localities than an energy supply system relying on conventional energy sources → any governance approach should take this into account
- Landscapes and social life change by the energy transition and therefore, place-sensitive approaches are needed
- Changes in the spatial organisation of the energy system and economic activity as well as the social implications need to be considered
- Public welfare oriented energy transition that does not neglect local interests can only work if a transparent, deliberative governance system is put into place in the long-term
  - Public participation should not stop with successful siting
- Future cannot be foreseen, but institutions can be built that are more likely to manage such a complex task in the long-run

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sophie.kuppler@kit.edu;  
melanie.mbah@kit.edu

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