Transmission System Expansion in Germany: Role of Municipalities as Bridges for Public Dialogue

Energy Infrastructure: Public Acceptance
Webinar, IEA Experts’ Group on R&D Priority-setting and Evaluation,
November 24th 2020
Germany decided in 2011 to plan and implement a new Energiewende.

Decisions:
• nuclear power phase-out (2022)
• increasing the share of renewable energy (65% in 2030)

Focus: build-up of wind and solar energy in Germany

Key to implementing the Energiewende: expansion of transmission system – north to south

Progress stalls:
7700 km of new transmission lines planned, only 1800 km approved or constructed so far

Consequences:
• increase of EEG-cost allocation (consumer) and redispatch costs (1 billion €)
• security of supply
Transmission System Expansion: national plan, local protests

**national level**: superior **planning** of transmission system expansion

key tool: Netzentwicklungsplan (NEP)

**local protests** -> **key issues**

- **overhead transmission lines**
  - health (electromagnetic fields)
  - change of landscapes
  - homes: losses in value

- **underground cable**
  - agriculture
  - soil protection
  - development: municipalities
Transmission System Expansion:
Role of Municipalities

Role of Municipalities

Municipalities are key actors for success of 
Energiewende – on the local level „plans have a rendezvouz with reality“

Public authorities are expected to work on a professional and positive level with transmission system operators and licensing agencies.

At the same time municipalities are the first and key adressees for protest and resistance on the local level.

dilemma: issue of national importance – very few control and benefits for local communities
Research Project:  
*Dialogbrücken* (Brigdes for Dialogue)

**Goals of Research Project**

1. **Scientific analysis:** roles of municipalities in building of public trust / mistrust in projects

2. **Identification of supporting and inhibiting factors** which drive behavior of municipalities in public

3. **Give advice to strengthen municipalities** in the complex process of building trust in planning of key *Energiewende* projects

**Partners (selection)**
Research Project: 
*Dialogbrücken* (Brigdes for Dialogue)

**Work Packages:**
Research Project

- **AP1** Theoretical Foundations
- **AP2** Case Study Conflict
- **AP3** Case Study Consensus
- **AP4** Survey of Municipalities in Germany
- **AP5** Dialogue Board
- **AP6** Results

*Stromnetzausbau vor Ort: Die Rolle von Kommunen als Dialogbrücken zwischen nationaler Planung und lokalem Protest ("Dialogbrücken")*
Research Project: *Dialogbrücken* (Brigdes for Dialogue)

**Work Package 1:**
Scientific literature / current state of research

**Key tool:**
VOSviewer analysis
Work Package 2/3: **Case studies**

- **most different design** (conflict /consensus)
- ex post analysis

- same transmission grid operator (Tennet) – difference in public acceptance

- **consensus case**: Westküstenleitung -> shared agreement to cooperate with municipalities

- **conflict case**: Wahle-Mecklar -> municipalities lead protests and proceeded against Tennet -> Bundesverwaltungsgericht
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Work Package 2/3: **Case studies**

Of key interest: **tipping points** in public acceptance

1. **basis:** regional biografies

2. **case studies**

3. **report**

- 2020
- 2021
- 2022
Research Project: *Dialogbrücken* (Brigdes for Dialogue)

**Dialogue Board**
(Begleitkreis)

discussion of findings with key stakeholder groups

*reality check* for research

**Work Package 4:** Survey of Municipalities

representative survey

sample: municipalities along key transmission system expansion routes
Research Project: 
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Results - Connectivity

- Articles (journals / newspapers)
- Guideline / Manual for Municipalities
- Transfer: Workshops