BACKGROUND INFORMATION FOR WORKSHOP FACILITATORS

The role of thermal energy communities in Germany's heating transition


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The role of thermal energy communities in Germany's heating transition

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A rapid decarbonization of the energy sector is key for mitigating climate change and in this transformation a transition to renewable heating is essential. To date, most attention in both research and policy on decarbonization has been on electricity and transport systems, with less interest in the heating system. Half of the EU's final energy consumption is made up by the heating and cooling sector, making this an important

Good to Know

TECs require a supportive regulatory environment and financial subsidies to thrive, making it essential for municipalities to advocate for such policies.

TECs benefit greatly from active community engagement, which not only boosts project success but also fosters local ownership and acceptance.

TOOLBOX CATEGORIES

Insights and practical recommendations for establishing and supporting TECs, which can be utilized by other European countries to enhance their heating transitions.

Country: Germany
Category: Other
Media: Guide
Source: https://www.frontiersin.org/journals/sustainable-cities/articles/10.3389/frsc.2022.1027148/full

Summary:

The study emphasizes the significant contribution Thermal Energy Communities (TECs) can make to Germany's energy transition. It provides insights into the TEC landscape in Germany and offers recommendations for local policymakers to integrate TECs into their heat planning and projects, which makes a great learning tool for everyone not only German readers. TECs play a crucial role in engaging citizens and motivating their participation in local heating projects, thereby enhancing awareness and participation in the heating transition. Moreover, by sharing workload and expertise, TECs can alleviate the burden of citizen workshops, informational campaigns and financial planning, making the transition more efficient and inclusive. Overall, this guide offers a practical roadmap for stakeholders, including government bodies, the energy industry, private investors and citizens, to collaborate effectively in advancing the heating transition with the involvement of TECs.

STUDY OVERVIEW

Title: The Role of Thermal Energy Cooperatives (TECs) in the Heating Transition in Germany
Objective: To explore the potential of Thermal Energy Cooperatives (TECs) in contributing to the heating transition in Germany by analyzing barriers and drivers.
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Publisher: Frontier [Front. Sustain. Cities, 04 January 2023, Sec. Innovation and Governance, Volume 4 - 2022 | https://doi.org/10.3389/frsc.2022.1027148]
Author: Hartmann, K. and Palm J.
Approach: This research delves into the role of TECs in Germany's heating transition, using a qualitative approach that applies Hicks and Ison's framework, which examines four dimensions: community engagement, governance, technology and scale and finance. The study involved 12 in-depth interviews with TEC-related organizations, including those directly involved in TECs and umbrella organizations. Through this framework, the study identifies critical success factors, challenges and practical recommendations for enabling TECs to thrive. It also provides concrete examples of existing TECs in Germany, offering a model that can be adapted and applied in other European contexts.

TOOL EVALUATION

How to Use

Municipal authorities in Europe can foster TECs by focusing on these key areas:

1. **Legal and Regulatory Framework:**
   - **Adopt Supportive Laws**: Implement a legal structure similar to Germany's "Bürgerenergiegenossenschaften" to encourage community-driven energy projects.
   - **Provide Financial Incentives**: Introduce subsidies and incentives like Germany's Renewable Energy Sources Act to make TECs economically viable.
2. **Economic and Social Considerations:**
   - **Ensure Funding Access**: Offer grants or low-interest loans to reduce upfront costs, making TECs accessible to a broader population.
   - **Professionalize TECs**: Encourage TECs to hire staff or partner with commercial entities, reducing reliance on volunteers.
3. **Overcoming Barriers:**
   - **Promote Inclusivity**: Engage all community members, including lower-income households, through education and accessible financial models.
   - **Mitigate Risks**: Provide financial guarantees or insurance to protect TECs from market fluctuations.

Key Benefits

- Great overview and insights into eight successful TEC in Germany
- Provides actionable tips for overcoming common challenges in TEC development.

- Presents examples of successful TECs, offering practical insights for replication in other contexts.

Cost Aspects

- TECs require significant upfront investments, particularly in infrastructure like heating grids and have therefore a high reliance on support from subsidies, municipality or banks..
- Municipalities and TEC members must be prepared for financial risks, especially in the early stages of project development.
- Sustainable funding mechanisms, including subsidies, are critical for the long-term success of TECs. Generally financial incentives are important and reducing them, leads to a decline in new EC initiatives (for example in Germany after a reduction of feed-in tariffs).

Evaluation

- **Challenges:** TECs face financial risks, especially if initial investments do not yield expected returns. Ensuring effective governance and decision-making can be challenging in cooperatives with diverse stakeholders. Choosing and scaling the right technologies can be difficult, particularly in ensuring long-term sustainability and efficiency.
- **Success Factors:** High levels of community involvement and volunteer work can significantly contribute to the success and sustainability of TECs. Favorable policies and financial incentives are critical for reducing barriers and supporting TEC development.Proper planning and managing financial risks are essential to ensure the long-term viability of TECs.

MORE INFORMATION FOR WORKSHOP PREPARATION

Contact: n.A.
Willingness to engage in dialogue or workshop participation: -
Possible support within REDI4heat: -
Similar Approaches in the Toolbox: **REScoop (Europe), PAW Guide (Netherlands)** and **SHIFFT (Europe).**
Further information on topic (with focus on target countries): -