

ICS PhD Project 3:

Plugged in? Effects of network embeddedness of local energy initiatives on their success

Aim

The project has four goals: 1) to examine to which extent (sociometric) integration of local energy initiatives (LEIs) in the community affects initiative success; 2) to develop a network intervention to promote LEI participation; 3) to examine the degree of network change due to the initiative; 4) to compare the success of LEIs.

Theoretical background

A successful transition from fossil fuels to renewable energy sources requires the participation of citizens and households, and is as much about behavior change as it is about technological change (Steg et al. 2021). From this perspective it is encouraging that many Dutch communities have an LEI comprised of small groups of community members who lead efforts to make local energy consumption more environmentally sustainable. Typical goals of such LEIs include the local household adoption of energy saving measures and the collective local production of sustainable energy from solar, wind, geothermal, or biogas sources. A central question in behavioral energy research is which factors promote or inhibit LEI participation. Many researchers address the psychological processes affecting the energy transition, but neglect the role of a community's social structures. These social structures, however, are likely to affect LEI participation through a variety of social mechanisms. These include information and social influence emanating from the LEI initiators; increased willingness to participate through identification with the community, itself driven by social integration; the trust that the LEI is reliable and that other community members will participate, again fostered by social integration in the community. This project uses a community-centered approach in which the degree of social integration of the LEI initiators and other community members in the local community, and the extent to which community members identify with their local communities are hypothesized to be important drivers of LEI participation.

Research design

Based on previous research by the project initiators social network data of LEIs in eight communities in the north of the Netherlands are available (Goedkoop et al., 2022). Data in four additional communities will be collected for this project. Data collection makes use of previously developed questionnaires adapted to the communities in collaboration with LEI initiators. After two years the measurement will be repeated to examine network change. A network intervention will be developed in collaboration with LEI initiators and will be based on the prior analysis of the effects of embeddedness of LEIs in the local community. In collaboration with an umbrella organization of LEIs a comparative study of LEI success will be conducted.

Literature

- Goedkoop, Fleur, Jacob Dijkstra, & Andreas Flache. 2022. A social network perspective on involvement in community energy initiatives: The role of direct and extended social ties to initiators, *Energy Policy*.
- Steg, L., et al. 2021. A Research agenda to better understand the human dimensions of energy transitions. *Frontiers in Psychology*, 2421.

Project initiators

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Location

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