



# Barriers and Recommendations to Innovative Models for Wind Power

Louise Krog<sup>1</sup>, Karl Sperling<sup>1</sup> and Henrik Lund<sup>1</sup>  
<sup>1</sup>Department of Planning, Aalborg University, Aalborg, Denmark

## Introduction

In the transition to renewable energy technologies local resistance have been a barrier for e.g. on-shore wind turbines. **Local ownership models** have proven to be an important tool to avoid this local resistance. As wind power expands into nearshore wind farms, these local ownership models needs to be developed to accommodate these new conditions.

In the study presented here (Krog et al., 2018)<sup>1</sup> study **Choice Awareness** theory are used to examine barriers connected to the implementation of these new ownership models and presents recommendations to overcome such barriers.

Through a case study of an NGO's attempt to bid for a tender for nearshore wind turbines in Denmark, this study show how the central administration prevents new innovative ownership models from entering such a tender. It is identified that a strong path dependency has led to a unconscious or conscious elimination of projects with organizational structures that do not fit the definition of large energy companies. As a result of this, we have developed three recommendations for policy changes with the aim to secure equal possibilities for actors involved in nearshore wind power tenders.

## Methodology

The work presented here is a summary of the work carried out in the paper "Barriers and Recommendations to Innovative Ownership Models for Wind Power"<sup>1</sup>. The analysis is based on a case study of a grassroots organization's attempt to bid for a tender for nearshore wind turbines.

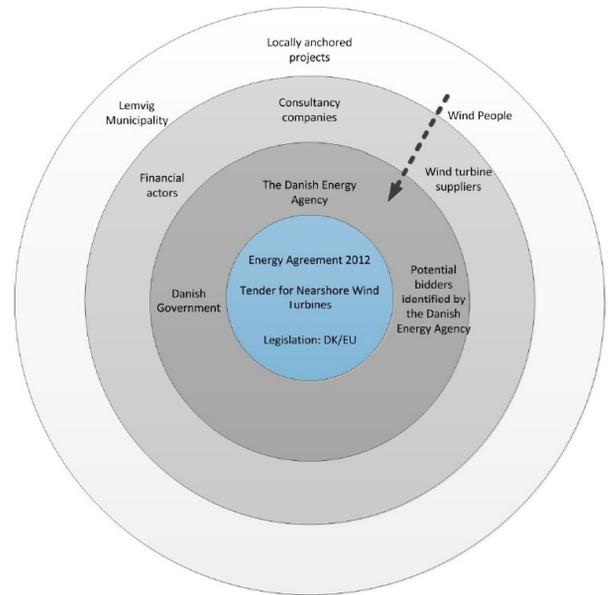
## Critical Case Study

The **Wind & Welfare** project has a strategic importance by assessing the actual possibilities for projects based on local community and shared ownership to participate in large energy tenders in Denmark. The case study is an example of how new actors and bottom-up projects are met by the central administration in a market that is dominated by large energy companies.

<sup>1</sup>Krog, L, Sperling, K. and Lund, H. "Barrieres and Recommendations to Innovative Ownership Models for Wind Power" Energies, vol. 11, no. 10, p. 2602, Sep. 2018

# Findings

The figure shows actors in the tender for 350 MW nearshore wind turbines in Denmark. The actors are mapped in relation to how closely they are connected to the central administration (the Danish Energy Agency) and thereby the decision making in the tender process. The further away the actors are placed to the blue inner circle, the more likely they are to be excluded in the tender process.



# Recommendations

- The involvement of actors, including locally anchored actors, should be broadened in the development of future tenders for nearshore wind power in Denmark. **This implies that a broad variety of actors are invited to join the process at an early stage.** This could, e.g., be done by inviting relevant NGOs to join the decision-making processes in relation to the specific tender rules.
- **Tender rules should be defined in a way that does not exclude locally anchored projects.** It is important that the different qualification criteria do not exclude certain actors just based on their organizational set-up. This means that economic requirements should be defined in a way that makes sure that potential bidders have the needed financial stability to realize the project, but without excluding certain ownership models. Furthermore, it is important that the timeframe leaves enough room for new actors to organize their projects.
- **A support scheme and secretariat should support actors in preliminary analyses, feasibility studies, etc.** New actors would not have the same professional network as already established actors on the market. For new actors to be able to develop realistic projects, a central support scheme that supplies funding to gain the needed knowledge could bridge this gap. Such a support scheme could specifically target non-profit actors or organizational set-ups with a high share of local ownership and could entail a central secretariat providing advice to these projects." (Krog et al., 2018)<sup>1</sup>

# Contact

Louise Krog ([Louise@plan.aau.dk](mailto:Louise@plan.aau.dk)) is Post Doc at the Department of Planning at Aalborg University.  
Karl Sperling ([Karl@plan.aau.dk](mailto:Karl@plan.aau.dk)) is Associate Professor at the Department of Planning at Aalborg University.  
Henrik Lund ([Lund@plan.aau.dk](mailto:Lund@plan.aau.dk)) is Professor at the Department of Planning at Aalborg University.