

Social acceptance: Gone with the wind?

A survey on the social acceptance of wind energy in Brandenburg

Berlin Institute of Technology (TU Berlin), 2016

This website presents the results of a survey on the social acceptance of wind energy in Brandenburg; in the rural region "Havelland-Fläming" as well as in the urban region of "Potsdam", 2016.

The survey was conducted by a Master student's project at the [Environmental Assessment and Planning Research Group](#), Berlin Institute of Technology (TU Berlin) in collaboration with the [Regionale Planungsgemeinschaft Havelland-Fläming](#). Please refer to the [site notice](#) of this website for contact details for further questions on this survey.



Fig. 1: Landscape of Brandenburg - Wind energy facilities are part of the landscape in Havelland-Fläming (Photo: R. Camargo)

Introduction

Social acceptance of wind energy developments in Brandenburg

A new wind is blowing. The importance of renewable energy is thriving in the policy agenda of many countries around the world, including the member states of the European Union (EU). The EU is simultaneously attempting to reduce its dependence on fossil fuels, increase energy security, and ease the somber legacy of the Chernobyl and Fukushima Daiichi disasters. In addition, challenging the effects of climate change and reducing carbon-dioxide emissions, that is to say establishing a low-carbon society, has become an overarching objective.

Germany, as a European trailblazer, is emphatically ambitious regarding its own energy transition, the "Energiewende". As an alternative to nuclear energy, up to 60% of the total power generation is aimed to be covered by renewables by the year 2035 (EEG 2014). Out of all viable technologies, installation of wind turbines is one of the most cost-effective opportunities. Until the end of 2015, their accumulated installed capacity exceeded 45 GW in Germany; ranking third after China and the USA (GWEC 2015). Brandenburg took the second position concerning the total installed capacity in MW among the federal states of Germany in 2015 (DEWI 2015).

[we_density_animation.mp4](#)

Development of wind energy facilities in the federal state of Brandenburg (1988 - 2016). Data source: Landwirtschafts- und Umweltinformationssystem des Landes Brandenburg (LUIS-BB) concerning immission control (Landesamt für Umwelt Brandenburg, 2016) [Click here for the interactive map](#)

Beside strong policy-level commitment, national surveys throughout Europe tend to show widespread support by the general public (Wind Directions 2003; BWEA 2005; AEE 2015). However, enthusiasm is often gone with the wind as specific projects are proposed; Germany is not an exception. Although the vast majority of the general public supports the expansion of renewable energies, actual implementation faces considerable opposition on regional and local scale. Noise, shadow flicker, landscape degradation, and the loss of biodiversity are some of the [counter arguments](#). Further exploring the size of this “gap” was the main motivation of our research.

The student's project and study of acceptance in Brandenburg

This project is dualistic in nature as it is confirmatory and exploratory at the same time. By [analysing academic literature](#) as a first step, we endeavoured to identify the most significant promoting and opposing factors of social acceptance as early as possible. These factors, beyond being a “Pillar of Fire” during our initial workflow, provided a basis of comparison and, at the end of the day, were reviewed against our final results. The framing of wind energy projects in the [local media](#) could further enhance our understanding of public sentiment towards the topic. Furthermore, we decided to designate two divergent areas in the federal state of Brandenburg for further exploration, a rural research area, consisting of two subdivisions, and an urban one.

Rural sampling sites were located in the planning region Havelland-Fläming and Lausitz-Spreewald. Residents of [Havelland-Fläming](#) already have extensive experience with wind energy. In 2005, the planning authority of the region conducted a survey in the close proximity of already existing and planned wind turbines to identify influencing factors of social acceptance. After ten years, as a part of our project, the updated survey was repeated in two of the formerly involved municipalities. “How has the opinion of the locals changed? Did opponents find a silver lining?” To our knowledge, exploring the answer to these questions established the first “10-years-after” comparison of social acceptance of wind energy.

The importance of political attitude is another interesting field of research. Political leadership of the municipality Uebigau-Wahrenbrück, located in [Lausitz-Spreewald](#), strongly supports wind energy development. Several recommendations from academic literature have been considered and even a strategic collaboration has been established with a regional wind energy developer. However, opinion of residents was not clear as they might have seen wind energy as a threat to their cultural identity rooted in coal mining and coal-based energy production. Does the outstanding enthusiasm of the municipality fascinate the residents to form a model region for transformation? – that was the motivation of research when adding a second rural subdivision to our project.

“City dwellers should not blow a headwind to wind farm projects as they, far away from the turbines, enjoy only the benefits of wind energy” – this was the main idea behind choosing [Potsdam](#) as our last research area. Residents of Potsdam, the largest city and the capital of the federal state of Brandenburg, have less personal experience with wind turbines as wind farms are located far away from the city. Moreover, with its shady parks and sparkling lakes, Potsdam provides outstanding recreational opportunities within its administrative borders. This further decreases the possibility of meeting wind turbines. Certain characteristics of Potsdam, e.g. younger age structure or higher educational attainment rate, could also significantly influence social acceptance. This last section of our study focuses on possible urban-rural differences.

During our research, we experienced [limitations](#) that should be considered when interpreting our

results. First and foremost, differences in the number of respondents in our comparisons could lead to remarkable inaccuracy as we have no information on those who did not answer our questionnaires; they may have been indifferent, neutral, or even silent protesters. Secondly, the reasonably applicable sampling methods were not able to fully represent the demographics and socio-economic variation of the concerned population. Thirdly, although being the only clear method of asking residents, the utilisation of closed questions could not represent the opinion of respondents in a detailed manner. Despite all vicissitudes, we find our results considerable and suitable foundation for further research.

According to our [key findings](#), general attitude towards wind energy showed a positive tendency over the past decade in areas heavily involved in wind energy developments. However, majority of rural respondents require improved procedural fairness as they do not feel timely and appropriately informed about wind energy projects in their neighbourhood. Furthermore, we found considerably higher acceptance of wind energy in Potsdam, compared to the rural sampling areas. This finding corresponds to the academic literature and demonstrates the importance of differences in distance to wind turbines, demographics, and socio-economic factors of social acceptance. As a take-home message, we would like to emphasize the importance of proper evaluation of social impacts during the environmental review of wind power installations.

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