

# The Social Science of Wind Energy Acceptance

Task 28 Status Report

Current Term May 2020 – April 2024

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18 May 2021

IEA Wind TCP ExCO 87

Technology Collaboration Programme

by **iea**



iea wind

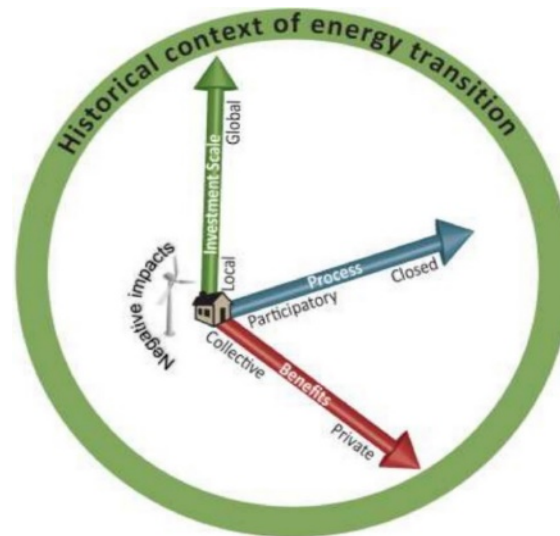
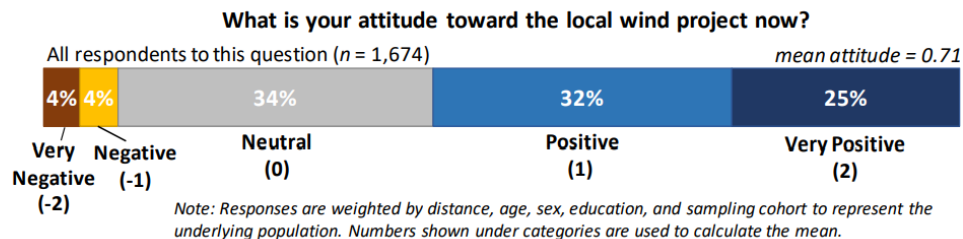
# Task 28 Objectives & Expected Results

- Ensuring diverse participation from a larger number of countries and a variety of researchers and social scientists interested in the responsible and appropriate deployment of wind projects;
- Adopting new methods of knowledge sharing based on more proactive involvement of Task participants;
- Maximising the value of the Task outputs through engagement of end users and broad systems thinking;
- Exploration of increasing the Task's reach to emerging economies and to help with the global energy transition;



Photo credits: wind-watch.org, Gundula Huebner, Dennis Schroeder

# Technical Results



## Sample Publications

1. Rand, Hoen, Hübner and Lantz. **National Survey of Attitudes of Wind Power Project Neighbors, Overall Attitudes : Summary Results** (November 2019)
2. Baxter, J., Walker, C., Ellis, G., Devine-Wright, P., Adams, M. and Smith Fullerton, R. (2020). **Scale, history and justice in community wind energy: An empirical review.** *Energy Research and Social Science*, 68, 101532.
3. Hübner, G. (2020). **Citizen participation for wind energy: experiences from Germany and beyond.** In O. Renn, F. Ulmer & A. Deckert (Eds.), *The role of public participation in energy transitions* (pp. 179-221). London: Elsevier.
4. Cousse, J. Wüstenhagen, R. Schneider, N. (2020) **Mixed feelings on wind energy: Affective imagery and local concern driving social acceptance in Switzerland**
5. Batel, S. and Devine-Wright, P. (2020) **Using NIMBY rhetoric as a political resource to negotiate responses to local energy infrastructure: a power line case study.** *Local Environment*, 25, 338-350.

# Sample of Deliverables

Phase III deliverables were completed in spring of 2020, including a series of fact sheets on social acceptance topics (health, annoyance, noise, viewshed, etc.) for public officials, developers, and other stakeholders.

Collaborative international [webinar](#) on social acceptance of offshore wind by Japan, Germany, US, and the UK (winter 2019) now has 500 views.

- [Wind turbine audibility and noise annoyance in a national U.S. survey: Individual perception and influencing factors](#) co-authored by Gundula Hübner and Johannes Pohl, Germany, Joe Rand, and Ben Hoen, Jeremy Firestone, T. Ryan Haac, Matthew Landis, and Debi Elliott, USA.
- [Understanding community acceptance of a potential offshore wind energy project in different locations: an island-based analysis of place-technology fit](#), by Devine-Wright & Wiersma. February 2020.
- [Demonstrating a genuine commitment to fair-play wind energy projects](#), by J. Aston, Ireland.
- [Individual or Collective? Community Involvement, Local Taxes, and the Social Acceptance of Wind Energy in Switzerland](#), by Pascal Vuichard, Switzerland (2020)

May 2021: Publication of best practice guidelines on Offshore Wind Farm Project Community Acceptance and Stakeholder Engagement, from participating member countries. (Garry Keegan, Ireland)

# Outreach, Dissemination, and Industry Participation

Industry is involved in Task 28 in every member country.

- Denmark representatives have collaborated with developers (including on conference presentations) to advance the WIND2050 Project. “Wind Farm Developers: a typology of acceptability” at the 11<sup>th</sup> International Sustainability Transitions Conference, 21<sup>st</sup> August 2020.
- Garry Keegan consulted with Irish grid developer EirGrid on community acceptance and public participation.
- Jamie Baxter presented *Social Science of Wind Energy Acceptance* to the Canadian Wind Energy Research Network. (2021)
- Members serve on Irish Government Advisory Group for community aspects of offshore wind
- Irish representatives conducted knowledge exchange survey about offshore wind social acceptance.
- In the UK, Task 28 participants with MISTRAL hosted online symposium on social acceptance and the energy transition with 93 attendees.
- Patrick Devine-Wright consulted with IPCC on social acceptance of climate mitigation technologies including wind.
- The U.S. Department of Energy convened developers and academics (including Tegen and Rand) to develop their wind energy stakeholder engagement strategy.
- Task 28 representative in Japan serves on Wind Energy Zoning Council in Akita.

# Additional Publications and Presentations

- Maruyama, Yasushi. 2021. *The Governance of Renewable Energy Projects and Expanded Distributive Justice*, in Miyauch and Fukunaga eds., Adaptive Participatory Environmental Governance in Japan : Local Experiences, Global Lessons, Springer (book [in print](#)).
- Devine-Wright & Wiersma. 2020. [Understanding community acceptance of a potential offshore wind energy project in different locations: an island-based analysis of place-technology fit](#)
- Current research (Jan Hildebrand, Germany): Accelerating the energy transition by expanding the financial participation of municipal and private stakeholders.
- MISTRAL – training the future social science-renewable energy workforce
- WESC 2021 Conference – *join us!*



Wind Energy Science Conference 2021  
Theme 5: Economy, Policy, Social and Environmental Aspects

**Can Wind Power be Socially Acceptable?**  
Dr. Suzanne Tegen<sup>1</sup>, Jan Hildebrand<sup>2</sup>, Dr. Kristian Borch<sup>3</sup>  
<sup>1</sup>Colorado State University, <sup>2</sup>Saarland University, <sup>3</sup>Aalborg University

As suggested by the international Institute for Energy Economics and Financial Analysis, the world has reached a tipping point "when global capital markets accepted the technology-driven inevitability and global parity cross-over from polluting thermal coal and the increased uptake of sustainable clean renewable energy." For the transition to a cleaner energy economy to be fully realised, it is more important than ever that wind power and other renewable energy sources be responsibly developed, taking human and ecosystem impacts into consideration at early planning stages. In the face of the intensifying challenge of social acceptance of wind energy in many parts of the world, this Mini-Symposium addresses these difficult issues and offers recommendations from experts.

During this Mini-Symposium, the audience will hear from national experts in Europe, the United States, and Asia about how local acceptance continues to be a key constraint for the development of wind energy projects and what technologists, social scientists, and the wind energy industry can do to explore solutions together. Each of our six sessions will present current research and engaging topics for the audience to discuss.

**WESC 2021**  
25 - 28 MAY  
HANNOVER, GERMANY

MINI-SYMPOSIUM

Invited speakers only

**NEXT WEDNESDAY!**



# Task 28 Members

	Country	Participant	Organization
1	Ireland	Garry Keegan (JOA) Geraint Ellis, Queen's University Belfast	<a href="http://www.ipc10.com">www.ipc10.com</a> Sustainable Energy Authority of Ireland
2	United States	Suzanne Tegen, Center for the New Energy Economy (JOA) Joe Rand, Lawrence Berkeley National Laboratory	Colorado State University U.S. Department of Energy
3	Germany	Gundula Huebner, MSH Medical School Hamburg & University Halle-Wittenberg Jan Hildebrand, IZES gGmbH, Saarbrücken	Federal Ministry for Economic Affairs and Energy Federal Ministry for Economic Affairs and Energy
4	Switzerland	Pascal Vuichaurd (through 2020)	Swiss Federal Office of Energy
5	Japan	Yasushi Maruyama, Nagoya University	National Institute of Advanced Industrial Science and Technology
6	Denmark	Kristian Borch Tom Cronin David Rodolph	DTU Wind Energy Technical University of Denmark Department of Wind Energy
7	Canada	Jamie Baxter	Western University, Canada
8	Finland	Lasse Peltonen	Akordi


Observers: United Kingdom, Sweden, Norway, Netherlands, Wind Europe

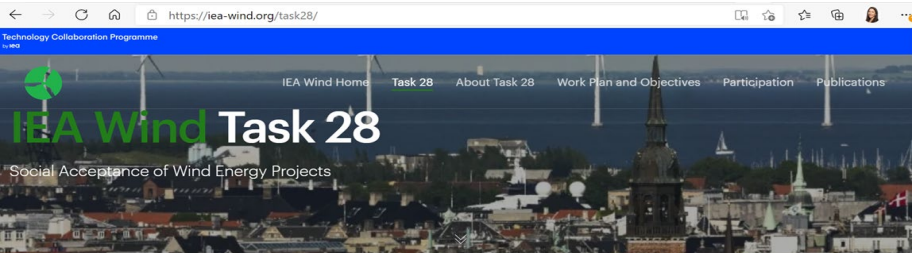
# Administrative Updates

## Participation

- Participation Changes: Portugal lost funding end of 2019, but we are looking for another Portuguese member. Gained Sweden (observer) 2020. UK and Norway are hoping to join as official members this year.

## Budget

- Task Annual Budget: 64,000 Euros/year
- Participation Fee (2020) = 8,000 Euros/year
- Overall Budget Status: 








Thank you for the new and improved website! We are making progress. 8

Photo Credit: Dennis Schroeder, NREL





## Work Plan Status

- WP1:  Innovations in value additions and benefit schemes
- WP2:  Understanding costs associated with community engagement and opposition
- WP3:  New and emerging issues in social acceptance (e.g. supersized turbines)
- WP4:  Increased global engagement and knowledge exchange
- WP5:  Offshore Wind Working Group on social acceptance

## Other Information/Issues

**Many Task members are working on trending and important topics in their own countries, such as energy justice and the energy transition.**

Other groups from IEA Wind TCP (41, 39) and elsewhere have reached out to collaborate on knowledge sharing and dissemination.

**To assist member countries in meeting climate and energy goals, it would be beneficial to collaborate with researchers in and on emerging economies. [Please contact us if you're interested in joining this task.](#)**



People are important. Think about them when you design and install wind technology.



**Thank you.**