



**iea wind**

**Task 28**

**Social Science  
of Wind Energy  
Acceptance**

## Offshore Vs. On-shore Community Acceptance and Stakeholder Engagement Differences

The differences between offshore and onshore wind industry community benefit provision have been viewed positively and there is scope to transfer certain lessons. The rationale for community benefit provision is similar for both industries, which is driven by a desire to share equitably the benefits gained by harnessing a natural resource.

Considering the differences in identifying nearby communities, maturity of the industry, technology and project economics, community benefit schemes are unlikely to be realised in precisely the same manner. While significant development is planned to occur across the globe, commercial scale projects in deeper, more challenging water, means the resulting costs and risks associated with these projects can be much higher than for onshore projects.

Cost reduction is a key driver for the offshore wind industry, particularly in the context of increasingly competitive contracts for difference allocation. Therefore, the scale of community benefits may be highly dependent on the developer's financial means. Developers may legitimately ask the national, state, regional, or local government whether they prefer cheaper electricity or generous community benefit schemes.

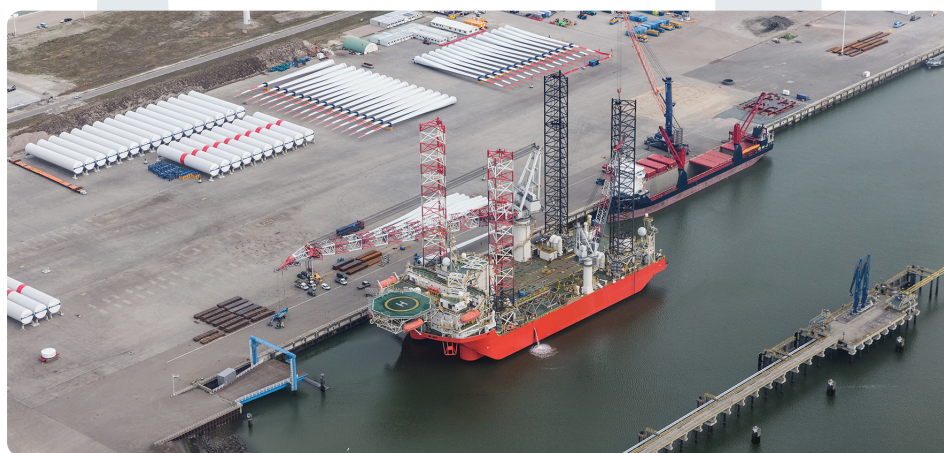
In Germany, for example, offshore projects are planned at the state level and far-shore projects are planned at the national level. Hence, communities are not part of the official planning process, unless shipping facilities have to be constructed, or the cable comes to shore, and/or the substation is constructed adjacent to local population.

There are additional technical challenges in constructing and maintaining sites offshore. The timescales and phased development process of offshore projects differs greatly from the onshore industry where the construction is less complex.

Offshore projects involve a more diverse and complex range of stakeholders with whom to negotiate agreements. For example, air interest for commercial, military and coastal rescue operations requires assurances for radar and lighting. Commercial and leisure fishing, shipping, and boating, and coastal resort tourism seek reassurance their operations will not be adversely impacted.

In terms of offshore wind farm environmental impacts, developers should be cognisant of the following considerations:

- Marine habitats and benthic (i.e., seabed) communities
- Bathymetry, sediment transport paths, bed forms, scouring, mixing, turbidity
- Water quality and pollution incidents during installation and maintenance
- Designated areas and proximity of protected areas
- Fish resource, migration patterns, and nursery areas
- Birds' distribution, disturbance, displacement, mortality, breeding and feeding impacts
- Marine mammals' distribution, disturbance, displacement, and the impacts of noise and vibration
- Archaeological heritage
- Visual impact and its potential consequences on tourism and property values
- Residential and holiday homeowners, who are a significant stakeholder group in coastal communities
- Noise, vibration, lighting, and turbine installation.



**IEA Wind (TCP-Technology Cooperation Programme) Task 28 Joint Operating Agents:**

**Dr. Garry Keegan, CEO, Infrastructure Projects Consulting, Dublin, Ireland [gmk@ipc10.com](mailto:gmk@ipc10.com)**

**Dr. Suzanne Tegen, Assistant Director, Center for the New Energy Economy Denver, Colorado, USA [Suzanne.tegen@colostate.edu](mailto:Suzanne.tegen@colostate.edu)**

*This project has been supported with financial contribution from Sustainable Energy Authority of Ireland under the SEAI Research, Development and Demonstration funding programme 2019, Grant number 19/RDD/554.*

*Disclaimer: The authors assume no responsibility or liability for any errors or omissions in the content of this summary guide. The information contained in this summary guide is provided on an "as is" basis with no guarantees of completeness, accuracy, usefulness, or timeliness. All views expressed represent the author's opinion based on their experience and expertise.*