

# The impact of engagement quality on community support for a local wind farm.



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## Challenge / Research Question

Community acceptance at the local level remains an important challenge for the developers of wind farms, and an implementation problem that hinders the achievement of the national target of 80% renewable electricity generation. Community engagement appears to be generally accepted as good practice (1-2). Previous studies suggest a strong link between quality community engagement with increased local acceptance of wind farms especially with a high level of early community consultation (3-5) and the use of more deliberative participatory approaches to planning (3,6-7). This research examines the impact of engagement during planning on community support for a local wind farm in Ireland. The long-term impact of the initial engagement during planning on ongoing support is also examined.

## Methods

An online survey was carried out from May to August 2022 (N=826). All respondents lived within 10km of a wind farm that was either in planning, construction or in operation. The respondents were asked about their level of support for the local wind farm. The respondents were also asked to think about their experience during the planning stage and to indicate to what extent do they agree or disagree with following three statements. These statements were selected to represent:

**Engagement quality:** 'The wind farm developer acted openly throughout the planning process.'

**Procedural justice:** 'The planning process was fair.'

**Participation:** 'The community was able to influence the project design.'

The survey also collected socio-demographic information. A series of logistic regressions were estimated to see if engagement experience during planning influenced support for the wind farm within the three different development stages.

## Results

Table 1. The proportion of respondents in each development stage that were either supportive or opposed to a nearby wind farm.

Support	Planning	Construction	Operation	Overall
Opposed	32%	9%	11%	17%
Supportive	68%	91%	89%	83%

Table 1 shows that opposition was highest in the planning stage with 32% stating they are opposed to a planned wind farm in their area. Support for a local wind farm was approximately 68% during the planning stage. Wind farm support is about 90% when in construction and in operational stages. Improved support for existing wind farms compared to planned wind farms has been found in previous studies (8).

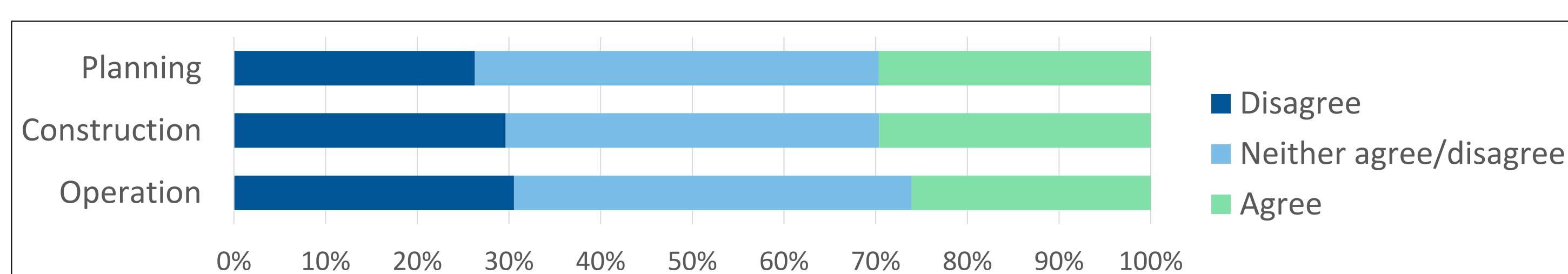


Figure 1. The wind farm developer acted openly throughout the planning process.

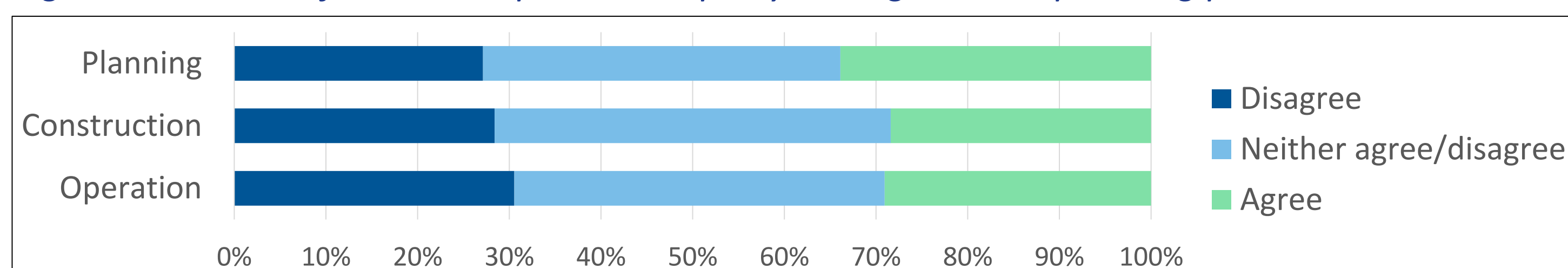


Figure 2. The planning process was fair.

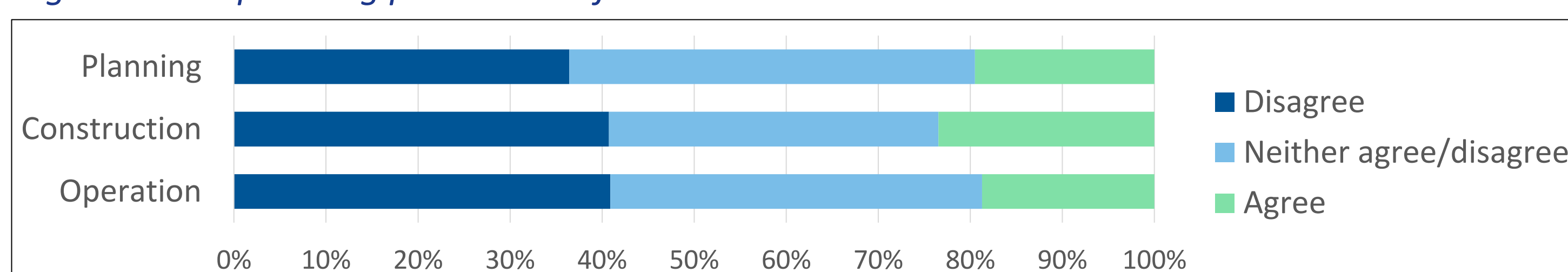


Figure 3. The community was able to influence the project design.

## Results continued

Figures 1 to 3 present the survey results for respondents' perception of engagement during the planning stage across different stages of project development. Overall, the differences in responses across the development stages were small indicating that the respondents' perception of engagement in planning were similar despite a greater emphasis on the need for more engagement in more recent years (1-2).

Table 2. The impact of engagement during planning on wind farm support.

	Planning	Construction	Operation
<b>Planning experience</b>			
Developer was open and transparent	+++	+	+
The planning process was fair	+	+	+++
The community could influence the project	+	-	-
<b>Distance to nearest turbine</b>			
Reference level: Over 5km and under 10km			
2 to 5 km	-	-	-
< 2km	--	-	--
<b>Socio-demographic variables</b>			
Sex	-	-	-
Age	-	-	-
Education level attained	-	-	-
Own or rent home	-	-	-
Income	-	-	-

+++ Indicates positive significance at the P < 0.001 level. -- Indicates positive significance at the P < 0.01 level  
+ Indicates positive significance at the P < 0.05 level. - Indicates the variable was not significant

Table 2 shows the significant results from the regression analysis. We find that

- All three aspects of engagement experienced during planning significantly influenced support during the planning stage.
- Open and transparent communication had the strongest positive influence on support in the planning stage and remained significant in the later stages.
- Believing that the planning process was fair influences support for a local wind farm in all stages but particularly in the operational stage.
- The participatory approach was influential on support in the planning stage but not in the later stages.
- A negative influence for distance i.e. under 2km compared to over 5km to nearest turbine, was found in the planning and operational stages

## Conclusions

The results confirm that engagement during the planning process is very important in gaining support for a local wind farm project. Open and transparent engagement, procedural fairness and a participatory approach at the time that local residents are introduced to the project and the project developer have a positive influence on local support. Open communication and procedural fairness have a long-term impact on continuing local support.

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