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# COMPENSATING COMMUNITIES TO REDUCE RESISTANCE TO ENERGY INFRASTRUCTURE DEVELOPMENT

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# Compensating communities to reduce resistance to energy infrastructure development<sup>1</sup>

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## COMPENSATING COMMUNITIES TO INCREASE ACCEPTANCE OF ENERGY INFRASTRUCTURE DEVELOPMENT

Ireland has ambitious plans to reduce the level of greenhouse gases emitted from electricity generation by increasing the amount of power that is generated from renewable technologies. Doing so will require a significant expansion of wind farms, and an accompanying expansion of the electricity transmission network (the “grid”). Previous analyses that we have conducted have shown that Irish residents are generally favourably disposed towards further development of renewable generation technologies; however, in practice, planners and policy makers are frequently met with objections from local communities to specific siting proposals. Community resistance to electricity infrastructure development can result in unhappy residents, frustrated planners, and project delays. In this research we consider a range of procedures that could be adopted in order to involve local communities in these projects. Such procedures may potentially reduce resistance amongst local communities.

## TO INVOLVE LOCAL COMMUNITIES IN INFRASTRUCTURE DEVELOPMENT, THERE ARE A NUMBER OF OPTIONS AVAILABLE

There are many different ways in which local residents could be involved in, or compensated for, wind farm and grid development projects; in our research we consider four possible involvement schemes, which vary by the depth of community involvement. They are as follows: (1) A community benefit scheme, which would comprise a straightforward monetary compensation to the local community. (2) Equity involvement, where communities would share in potential risks as well as potential profits from the developments. (3) Joint ventures, in which local residents and commercial operators would agree jointly on shared

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project ownership and management. (4) Energy cooperatives, in which a community or local organisation would have full ownership of a project, and all associated benefits and risks. All four of the above schemes could be adopted in the case of wind farm development, however, due to the technical requirements of electrical grid operations, we assume that only the first two (community benefit schemes and equity involvement) would be viable options in the case of grid development projects.

#### **WE SURVEYED IRISH RESIDENTS TO FIND OUT WHICH OF THE POSSIBLE INVOLVEMENT SCHEMES THEY WOULD PREFER**

We conducted a nationally representative survey of Irish residents to elicit their views on the community involvement schemes outlined above. We first asked about the general views of residents towards electricity infrastructure development in their area of residence in the absence of any form of community involvement, and under each of the schemes. We then examined whether the various schemes would result in increased levels of acceptance of local infrastructure development. Finally, we analysed the characteristics and attitudes that were associated with acceptance levels under each of the proposed schemes.

#### **ACCEPTANCE LEVELS INCREASE THE MOST WHEN LOCAL RESIDENTS WOULD BE COMPENSATED VIA A COMMUNITY BENEFIT SCHEME**

We find that the acceptance levels for both wind farm and grid development projects would be highest when residents receive a simple monetary compensation, and do not partake in ownership or risk sharing of the projects. These results suggest that Irish residents are reluctant to sign up for an involvement scheme with which they have no prior experience; perhaps due to risk aversion, or a lack of trust in the planning system.

We also find that, for more than 40% of survey respondents, their acceptance levels do not increase at the prospect of being involved or compensated in any way. This indicates that they are ideologically either in favour of or opposed to these development projects, and such involvement/compensation schemes will not change their minds.

We find that a person's age is often an important predictor of their acceptance levels – older people are generally less willing to accept local infrastructure development. We also find that people who are unhappy with current local planning procedures are always less accepting of development projects, and that people who place a higher importance on the environmental, rather than the economic objectives of energy policy, are more willing to accept wind farm and grid development

#### **POLICY MAKERS CAN USE OUR FINDINGS TO BETTER DESIGN COMMUNITY INVOLVEMENT SCHEMES AND BETTER TARGET INFORMATION CAMPAIGNS**

If policy makers hope to increase local infrastructure acceptance levels via community involvement, our results shed light on which schemes would lead to

the greatest increase in acceptance levels. Furthermore, our results show that, for a large proportion of respondents, their acceptance of local development projects does not change when compensation/involvement is offered. This finding suggests that policy-makers may need to do more to increase acceptance levels, rather than merely proposing compensation or involvement schemes.

Finally, the results on the attitudinal variables that are linked to acceptance levels indicate which features of the infrastructure should be highlighted when communicating project development plans to the public. For example, the environmental rather than the economic imperative to increase the penetration of renewable generation should be stressed by policy makers when they are making the case for an increased number of wind farms and expansion of the transmission grid. Thus, the findings of our research have important implications for the ways in which policy makers outline the rationale behind infrastructure projects and target information campaigns.

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