

Selected Summary from:

What Is The Significance Of “Community” Wind Energy?

The influence of local project initiation, participation, and investment on local perceptions of small-scale wind energy projects in Nova Scotia

Honours Thesis

Note: This summary does not include numerical details of the statistical tests employed.

*For detailed statistical results, please see the full thesis at
<https://sites.google.com/site/nswindenergystudy/>*

Tiffany Vass

Environmental Science, Dalhousie University

tiffany.vass@dal.ca

Supervisors: Dr. Wayne Groszko & Dr. Ruth Forsdyke

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Research Question

The present study explored **perceptions of three small-scale wind energy projects in Nova Scotia among local community members**, with the objective of determining what factors have an influence on perceptions. The study sought to answer the following research questions:

Among those who reside in the local community surrounding small-scale wind energy projects in Nova Scotia, how are a) support for the project, b) a sense that the project is “the community’s project”, and c) perceptions of the project’s benefits and negative impacts, influenced by the following three factors:

1. Whether or not the project is locally initiated and directed
2. The extent of local community participation in the project planning process
3. The presence or absence of an opportunity for local residents to make a personal financial investment in the project.

Research Methodology

A mail-out survey was sent to a sample of the households in the areas surrounding each of the three projects in order to collect data on local perceptions of and involvement in the projects. The target population for each of the three wind energy projects was geographically defined as the rural

households within a radius of approximately 10 kilometers of the project and the households within the nearest large centre. A total of 1,285 surveys were sent out in December 2012.

The statistical methods used to analyze the results included analysis of variance, chi-square tests, and stepwise multiple linear regression.

Results

Survey Response: The survey had a response rate of 10%, with a total of 128 useable responses received (29 (23%) from Maryvale, **54 (42%) from Spiddle Hill**, and 45 (35%) from Watt Section).

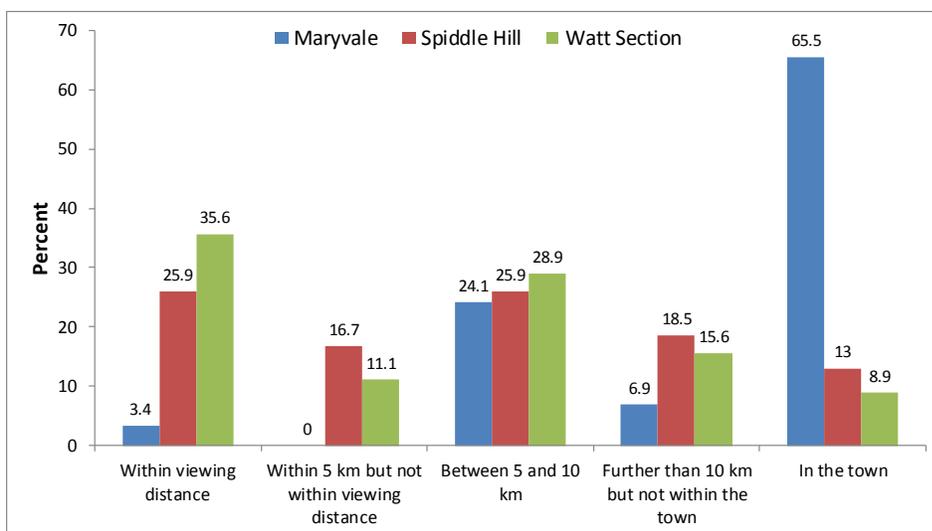


Figure 1.

Distance of survey respondents from the respective wind energy projects, as percent of total respondents from the respective project.

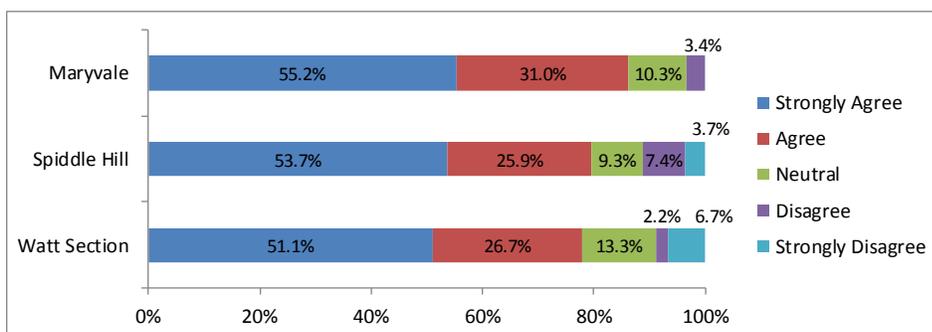


Figure 2.

Level of agreement or disagree of respondents from each of the three communities with the statement "I am in support of this wind energy project."

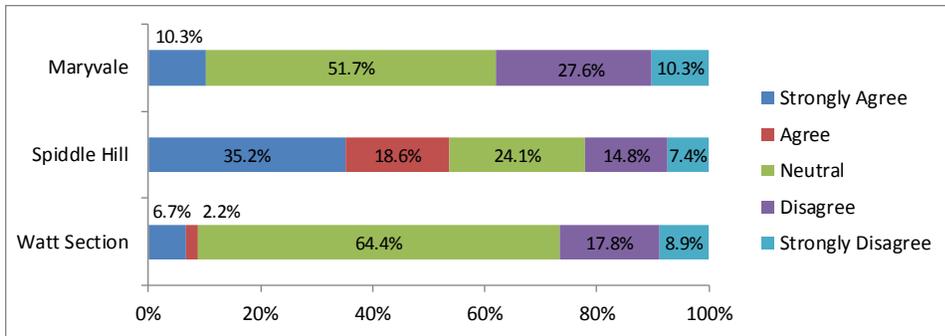


Figure 3.
Level of agreement or disagreement of respondents from each of the three communities to the statement "This project is my community's project."

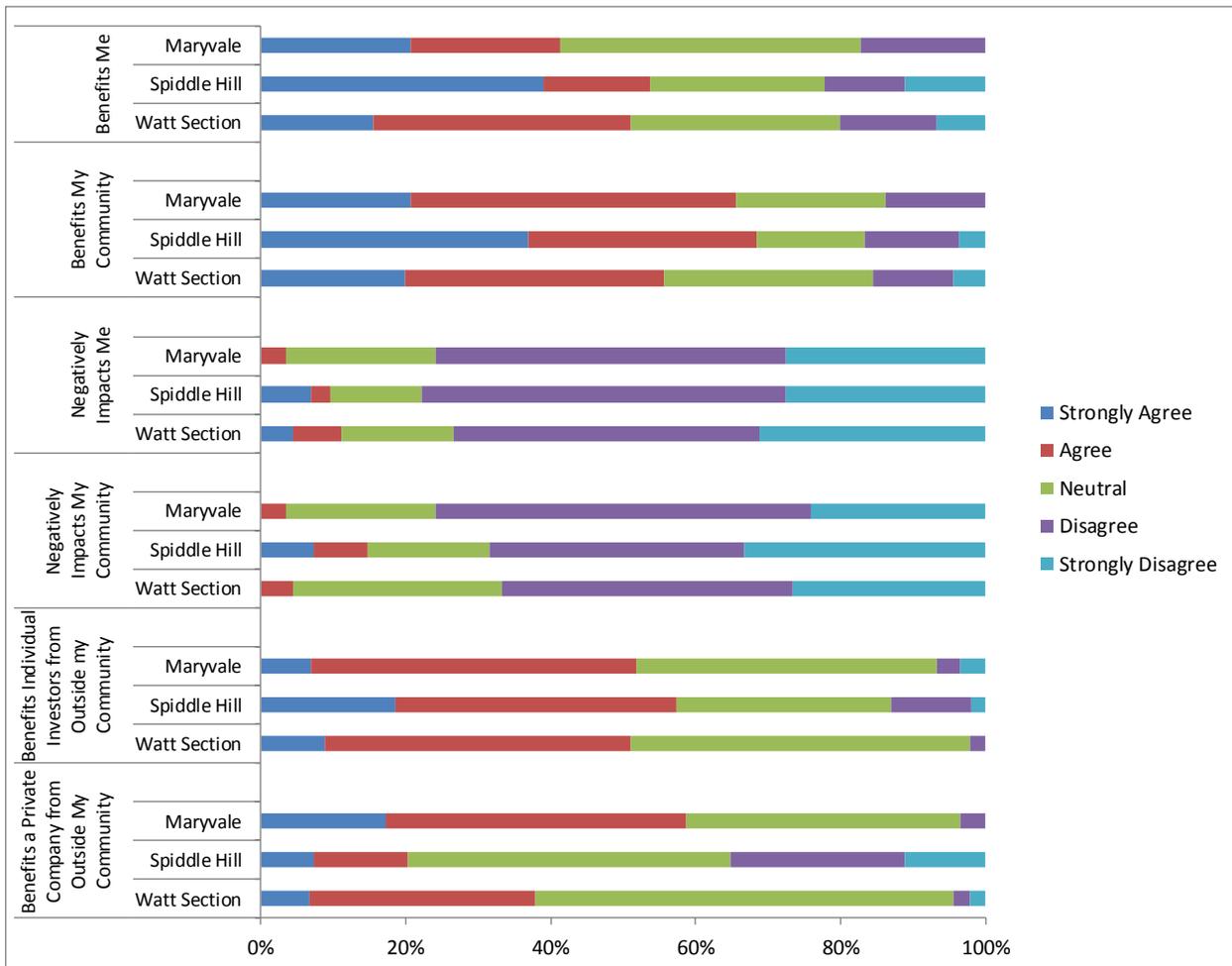


Figure 4. **Level of agreement or disagreement of respondents from each of the three communities to statements regarding benefits and negative impacts of the respective project.**

Perceptions of the Project Development Approach

Spiddle Hill respondents were significantly more likely than Maryvale and Watt Section respondents to agree that the idea for the project originated within their community, that the project is being directed from within their community, and that a company and/or individual shareholders within the community have at least partial ownership of the project (Figure 6). For Maryvale and Watt Section, the most common response to these questions was “don’t know”.

Significantly more respondents from Spiddle Hill believed that the opportunity was available for community members to invest in the wind project than respondents from both Watt Section and Maryvale (Figure 7). Among the 54 Spiddle Hill respondents, 13 had invested in the project, while none of the respondents from Watt Section or Maryvale had invested in the respective projects.

There was no significant difference among the three projects in terms of the respondents’ actual level of participation in the projects. Most respondents did not participate in the project’s planning process. However, Spiddle Hill respondents were more likely than Maryvale and Watt Section respondents to agree that the opportunity was *available* for them to participate in the project’s planning process, that the community played an important role in the project’s planning process, and that the project planning process was fair (Figure 8).

Table 1. Perceived negative impacts of the wind energy projects to individuals and their communities, as percent of respondents who mentioned the given negative impacts out of all respondents who answered the question (for “negatively impacts me”, number of respondents = 16; for “negatively impacts my community”, number of respondents = 19).

	Negatively Impacts Me	Negatively Impacts My Community
Negative impact on the landscape/aesthetics	50% (8)	21% (4)
Noise	38% (6)	26% (5)
Lower property values	25% (4)	16% (3)
Too close to homes in general	19% (3)	26% (5)
Physical health effects and/or infrasound	13% (2)	5% (1)
Have to pay as ratepayers	6% (1)	16% (3)
Community discord/dividing friendships	6% (1)	16% (3)
Fewer jobs than fossil fuel generation	6% (1)	5% (1)
Shadow/strobe effect	0% (0)	5% (1)
Company not listening to residents	0% (0)	11% (2)
Involvement of Emera	6% (1)	0% (0)
Upsets neighbours dogs	0% (0)	5% (1)
Drives away wildlife	0% (0)	5% (1)

Discussion

Sense of Community Ownership

Local project initiation, local investment opportunities, and local participation all had some degree of positive relationship with a sense of “community ownership”. **These relationships are suggested by the fact that Spiddle Hill respondents had a stronger sense of “community ownership” of the project than Watt Section and Maryvale respondents.** (Recall that the Spiddle Hill project was locally initiated, had opportunities for local investment, and had higher perceptions that the opportunity was available for participation in the project’s planning process.)

Full Thesis

The full study may be found at <https://sites.google.com/site/nswindenergystudy/> .