

How the Irish Public View Wind Farms in the Landscape:

Tomás O'Leary and Art McCormack
MosArt Landscape - Architecture - Research, Wicklow

Photomontages by
Nik Hennessy, Macro Works

The MosArt Practice

- Landscape Architects and Architects
- Established in 1993
- Involved in assessment of over 20 wind farm projects, both onshore and offshore
- Contributing at project level and strategic planning level
- Involved in current national public attitudinal survey
- Drafted the DoE Landscape Guidelines
- Long standing alliance with Macro Works - producing graphic input for visual impact assessment

Study Context:

- Presumption on the part of many decision makers that wind farms create adverse impacts on landscape
- Landscape architects tends to adopt a cautionary stance in their assessment of impact, partly influenced by lack of public perception research
- Little known regarding influence of turbine numbers, cumulative effects or turbine sizes on perceptions of wind farm development

1. Scenic Beauty Assessment of Different Landscape Types

Coastline



Rolling Mountain Moorland



Fertile Farmland



Industrial / Urban



Flat Midland Bogs



Conclusion (1)

	<i>Scenic beauty score</i>	
<i>Coastline</i>	4.5	<i>Most preferred</i>
<i>Mountain Moorland</i>	4.3	
<i>Fertile Farmland</i>	4.3	
<i>Industrial / Urban</i>	3.1	
<i>Flat Midland Bogs</i>	2.7	<i>Least preferred</i>



Score of 1 = low scenic beauty, score of 5 = very high scenic beauty

2. Perceived Effect of Developing a Wind Farm on Scenic Beauty

Coastline



Perceived effect of wind farm on scenic beauty:

<i>Positive</i>	<i>Neutral</i>	<i>Negative</i>
44%	29%	26%

Rolling Mountain Moorland



Perceived effect of wind farm on scenic beauty:

<i>Positive</i>	<i>Neutral</i>	<i>Negative</i>
43%	31%	26%

Fertile Farmland



Perceived effect of wind farm on scenic beauty:

<i>Positive</i>	<i>Neutral</i>	<i>Negative</i>
41%	34%	23%

Industrial / Urban



Perceived effect of wind farm on scenic beauty:

<i>Positive</i>	<i>Neutral</i>	<i>Negative</i>
45%	33%	22%

Flat Midland Bogs



Perceived effect of wind farm on scenic beauty:

<i>Positive</i>	<i>Neutral</i>	<i>Negative</i>
45%	35%	20%

Conclusion (2)

- Irrespective of landscape type, approximately three quarters of Irish people feel that a 10 turbine wind farm has a neutral or positive impact on scenic beauty
- Highest level of concern expressed regarding development in coastal and mountain moorland site types

Perceived Impact of Wind Farms of Different Extents



5 Turbines: Positive = 50%, Neutral = 32%, Negative = 17%



10 Turbines: Positive = 43%, Neutral = 31%, Negative = 26%



25 Turbines: Positive = 28%, Neutral = 26%, Negative = 46%

Perceived Impact of Cumulative Effect



10 Turbines in one cluster: Positive = 43%, Neutral = 31%, Negative = 26%



20 Turbines in two clusters: Positive = 39%, Neutral = 29%, Negative = 31%

Perceived Impact of Wind Farms of Different Extents



5 Turbines: Positive = 49%, Neutral = 31%, Negative = 19%



10 Turbines: Positive = 41%, Neutral = 34%, Negative = 23%



25 Turbines: Positive = 27%, Neutral = 26%, Negative = 46%

Perceived Impact of Cumulative Effect



10 Turbines in one cluster: Positive = 41%, Neutral = 34%, Negative = 23%



20 Turbines in two clusters: Positive = 39%, Neutral = 27%, Negative = 32%

Conclusion (3)

- Negligible difference between landscape types
- Highest level of concern expressed regarding single development of 25 turbine wind farm
- 2 separate wind farms each with 10 turbines regarded as having lower adverse impact than one larger development
- Cumulative effects - 2 wind farms with 10 turbines is perceived as more adverse than a single wind farm with 10 turbines
- Less than 20% find the wind farm with 5 turbines to be negative

Impact of Turbine Size on Perceptions of Scenic Beauty

Both of these wind farms generate the same amount of electricity



*Preferred
by 28%*

The turbines above are smaller, so more are needed

The turbines below are larger, so fewer are needed



*Preferred
by 43%*

Which would you prefer?

Both of these wind farms generate the same amount of electricity



The turbines above are smaller, so more are needed

The turbines below are larger, so fewer are needed



*Preferred
by 24%*

*Preferred
by 42%*

Which would you prefer?

Conclusion (4)

- Negligible difference between landscape types
- Greater preference for smaller number of larger turbines

Conclusion (4)

- Negligible difference between landscape types
- Greater preference for smaller number of larger turbines



Technology has moved on!

(Added bonus - larger turbines have slower rotations)

Overall Conclusions

- Irish people who feel that wind farms create an adverse impact on scenic beauty are in the minority
- Subtle differences in perceptions depending upon landscape character type
- Concern increases with number of turbines - preference to break down into smaller (separate) groups
- Evidence of cumulative effect discovered
- Preference to achieve targets with larger (and fewer) turbines

Use of Results

- “*Lies, Damn Lies, and Statistics*” - Results will inevitably be interpreted by different groups depending upon their interests and agenda
- The overall (bigger) picture more important than the nitty gritty detail
- Decision makers must adjust their common presumption that wind farm development is negative
- Developers must recognise that the public can discern between wind farms of different scale, layout and turbine size

Contact Information

MosArt *Architecture Landscape and Research*

Stella Maris, Ballyguile, Wicklow, County Wicklow.

Telephone 0404 68017 or 087 6865 865

E-mail: mosart@indigo.ie