

Biala LVIA. The effect of distance on Visual Impact

There are established, independent, frameworks for assessing the relevance of distance to the visual impact of turbines of various heights. Clouston Associates has ignored those frameworks and conjured up their own, which is vastly more favourable to the proponent. They have offered no justification for their own scheme rather than independent ones. It must be presumed they thought doing anything else would kill the Biala proposal.

Applying the Sinclair-Thomas Matrix, which has been drawn on by the well respected Scottish National Heritage reports on wind farm VI assessment, most of the area examined by Clouston Associates would experience dominant impact from unobscured turbines and properties out to 13 kms could experience major impact, particularly given the cluster of turbines for this project.

The LVIA should be totally rejected and the whole project sent back until an LVIA is produced that applies a genuinely independent VI framework and not one backfitted to justify the project.

Clouston Associates convenient but unfounded distance framework

Clouston Associates in Appendix A of their LVIA propose the following Visual Impact assessment relating to distance.

MAGNITUDE Quantitative assessment definitions		
Distance		The effect the Proposal has on the view relating to the distance between the Proposal and the visual receptor. The distances are from the approximate centre of the site and categorised as:
	H	Within 0 - 2000 metres- high impact.
	M	2000 to 7,000 metres - moderate impact.
	L	Further than 7,000 metres - low impact.

We'll ignore the statement that the distances are from the "centre of the site". This is from their normal "matrix" relating to urban projects and it somehow got through the proof reading process. (although maybe they meant it)

Absorb the figures for a moment. Is there any recent example in a wind farm LVIA of a range of figures so low?

The upper boundary or the High Impact figure conveniently stops at 2kms. No non-host residence lies within that range, we are told. (but their properties do).

This table is project dependent. Cloustons modify it to suit the type of structure for which they are assessing the Visual Impact. They do not give, in these other projects, the methodology by which they choose the distance bands. We are left with the conclusion that they decide it based on their professional judgement.

In this case they have no experience, not having done a wind farm LVIA before. Once again they give no explanation of how they arrived at these ranges. Their only experience with NSW wind farms appears to be the peer review study they did for the Department for the Collector wind farm.

Maybe they saw Green Bean Design's distance matrix and modified (and compressed) that:

View Distance	
Long Distance	>10km
Distant	5km – 10km
Medium	3 – 5km
Short	2 – 3km
Very short	<2km

The Sinclair-Thomas Matrix has stood the test of time. Whilst it was proposed in 1999 on turbines much smaller than those in use and planned today, it has yet to be challenged by independent scholars.

The Biala turbines have a planned height of 185 metres. The table below describes the impact for the first three (of six) bands in the Sinclair-Thomas matrix. As the distance data points for each of the three turbine heights they chose plot to an approximate straight line, the last column gives an extrapolated estimate for turbines 185 metres high.

Sinclair-Thomas Matrix of Potential Visual Impacts of Wind Turbines

Descriptors	Band	52-55 metres	70 metres	95 metres	185 metres
Dominant impact due to large scale, movement, and number	A	0 - 2.5 km	0 - 3 km	0 - 4 km	0 - 7.5 km
Major impact due to proximity, capable of dominating landscape	B	2.5 - 5 km	3 - 6 km	4 - 7.5 km	7.5 - 13 km
Clearly visible with moderate impact; potentially intrusive	C	5 - 8 km	6 - 10 km	7.5 - 12 km	13 - 20 km

So, when we compare the extrapolated Sinclair-Thomas matrix with the Clouston-ERM matrix, we find that all of the ranges of the latter fit within Band A in the former for a 185 metre turbine.

Repeating what the Band A description is:

“Dominant impact due to large scale, movement, and number”

So, Clouston’s professional judgment is totally wrong. Unfortunately, distance as a factor affecting Visual Impact is fundamentally important, so any Visual Impacts based on this flawed matrix must be redone. More importantly, non-host residences out to 13 kms, are severely impacted, Cloustons, in their LVIA has completely ignored these residences.

This omission is so severe that the only action that the Department can take is to reject the complete LVIA.