

SEARs Ignored with Grossly Misleading VI Assessment

Proponent needs to be held to account

The LVIA appears to totally ignore the minimum ZVI specified in the SEARs, and even more the appropriate minimum ZVI for the larger turbines proposed in the EIS (185 meters rather than 150 metres in the SEARs).

It has invented its own, unsubstantiated, estimate of VI related to distance from the turbines which is contrary to established frameworks that do take turbine height into account. It appears to have used its purported and misleading distance-VI relationship as a rationale for ignoring the ZVI specified by the SEARs.

It has also almost totally ignored the SEARs requirement to assess cumulative VI, apparently deciding that matters only for properties close to the Biala wind farm and not for properties that may be closer to other nearby wind farms but which would also experience major additional impact from the Biala turbines.

It looks as though this is an LVIA done to a (limited) budget and not to the Department's specification. The LVIA should be rejected as being totally non-compliant with the SEARs, as well as inventing distance-VI categorisation that anyone working in the VI field should know is misleading.

It is certainly puzzling that the Department would allow public exhibition of an EIS containing an LVIA which so obviously fails to comply with both the SEARs and the relevant environmental regulations, and fails to provide the community with the information needed to make informed comment about the proposal.

Failing to enforce the SEARs and regulations surely amounts to behaviour partial to the interests of the developer and may bring the Department into contravention of the ICAC Act.

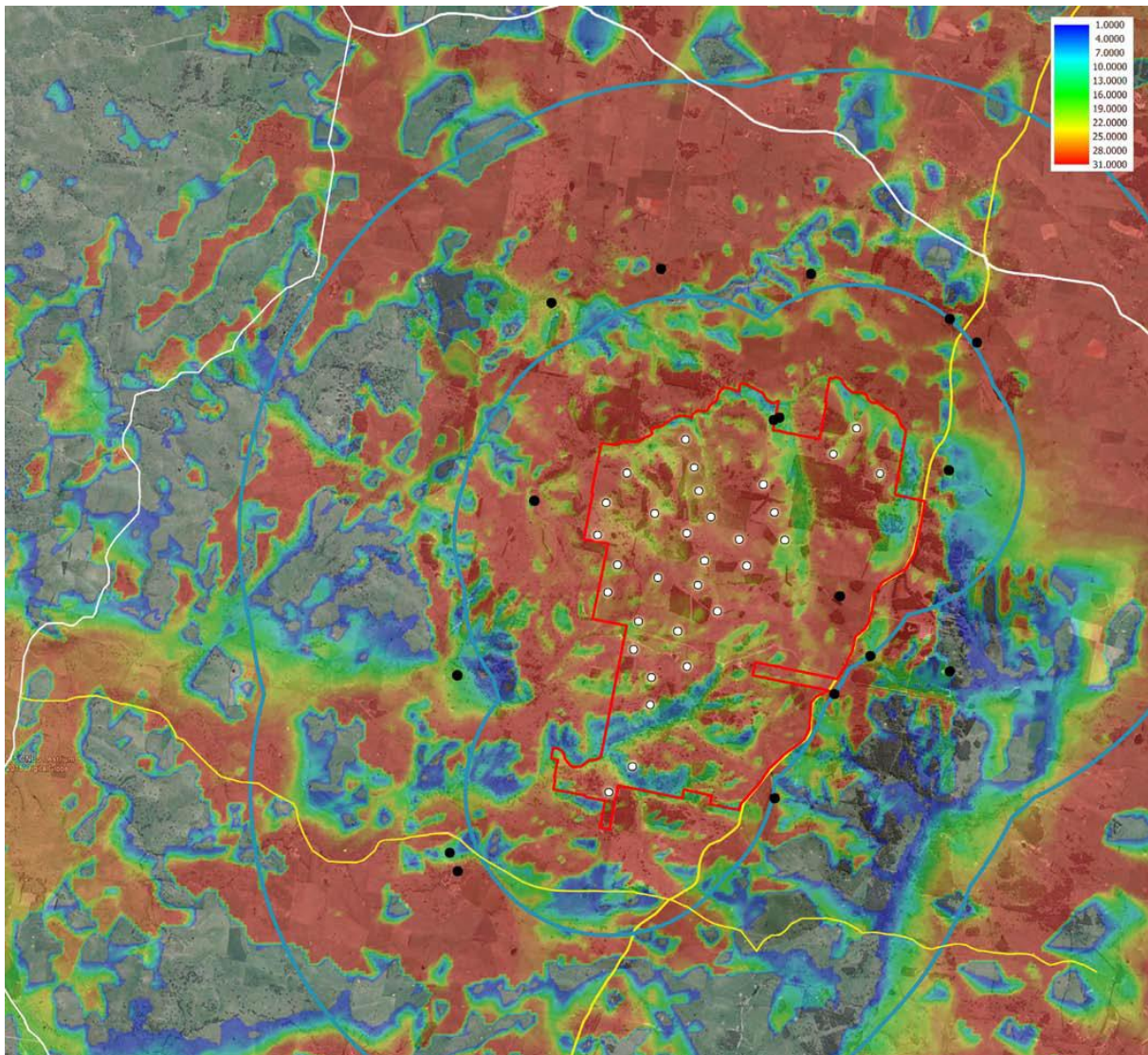
SEARs ZVI apparently ignored

The SEARs prescribe a ZVI of "no less than 10 km". However that was based on wind turbines proposed to be a maximum of 150 metres high. A ZVI of 10 km is arguably insufficient for turbines 150 metres high, and certainly for turbines 185 metres high as proposed in the EIS – so the ZVI needs to be proportionately enlarged. Even taking the SEARs' specified minimum as a base, turbines 185 metres high would warrant a ZVI of no less than 12.5 kms.

On page 7 of the LCVIA, Part 1 it refers to "the 12 km viewshed", which seems close to the 12.5 kms, but there is no discussion of actually applying a 12 km evaluation zone around the wind farm. All the evidence presented in the LCVIA indicates the contrary.

On pages 21, 40, 41 of the LCVIA there are maps intended to depict visual impact. The maps don't include a scale, so it is difficult to be precise about the area covered. However, from the 2 and 5 km zones around the wind farm that are marked on the maps, it appears the maps extend from about 7 – 8 kms to the west of the wind farm, 4 – 5 kms east, less than 5 kms north and about 4 kms south. This is nowhere near the 12.5 kms ZVI minimum.

The exclusion outside that mapped area does not appear to be based on topography concealing turbines. The graphic below, from page 40 of the LCVIA shows in red the locations that will have a view of all or part of the **whole** 31 turbines.



As is visible from the graphic, all of the eastern side of the mapped area, half the northern side and a material amount of the southern boundary are red, i.e. people in those locations would be able to see the 31 turbines. It strains credulity that visibility of those turbines then drops to zero as soon as one crosses over the northern, eastern or southern bounds of the area displayed.

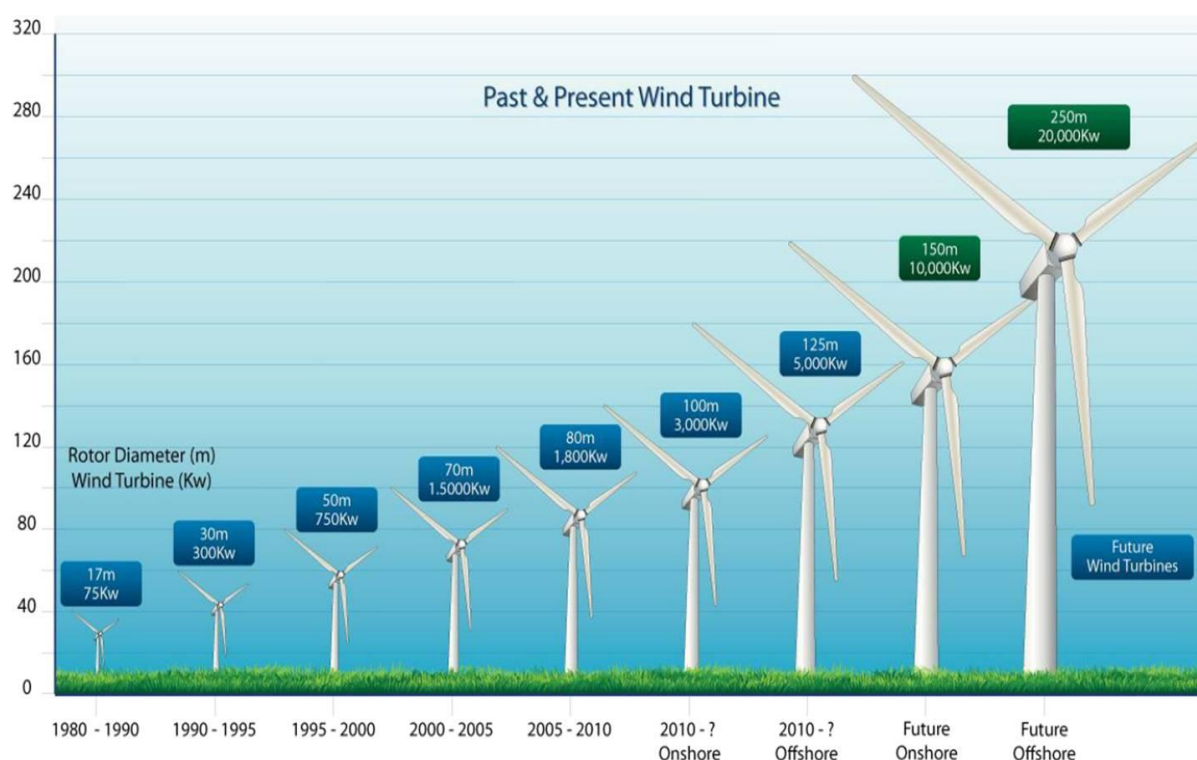
It therefore appears that Clouston Associates has simply ignored a huge amount of the area that, according to the SEARs, they were supposed to cover. Perhaps Cloustons thought they could ignore everything outside that selected area because they produced a table (Appendix A) that simply asserted, without offering a smidgin of evidence, that any property between 2 and 7 kms from the wind farm would experience moderate impact and anything beyond 7 kms would experience low impact.

This decision is surely at variance with the SEARs requirement to use a ZVI of 10 kms (for 150 metre turbines). Presumably in so doing, the Department was flagging its view that there

could be a material visual impact from 150 metre turbines on properties up to 10 kms from the wind farm, particularly when those properties had a view of tens of turbines.

The closest Cloustons comes to citing some evidential basis is to refer (Part 1, page 35) to a Scottish Executive Planning Advice Note (2002) which claims turbines are visually intrusive up to 5kms and noticeable but not intrusive from 5 – 15 kms. Leaving aside the fact that 5 – 15 kms is a huge distance and it is hardly credible that the visual impact is the same at 5.1 kms as at 15 kms, there is no reference in this table to turbine height.

We don't know what the authors of that report had in mind but given it was released in 2002 it is most unlikely they were referring to turbines 185 metres high. The Schlumberger SBC Energy Institute offers a comparison¹ of typical turbine heights over the years (see graphic below). As is clear from the Schlumberger information, the typical height around the time of that Scottish Executive Planning Advice Note was a hub height of about 75 metres and rotor diameter of 70 metres, so total height of about 110 metres.



Source: Schlumberger SBC Energy Institute, <https://www.sbc.slb.com/SBCInstitute/Publications/Wind.aspx>

Given the Biala turbines are to be 68% higher than was typical in the era of the note cited by Cloustons, applying that difference to the suggested likely impact table in the Scottish Executive Planning Advice Note (2002), gives us:

| | | |
|---------------|----------------------------------|--|
| Up to 3.5 kms | Likely to be a prominent feature | WTG likely to dominate the field of view and appear large scale. Movement of the blades obvious. |
| 3.5 – 8.4 kms | Relatively prominent | Visually intrusive |
| 8.4 – 25 kms | Prominent in clear visibility | Noticeable - the turbines are visible but not intrusive. |

¹ <https://www.sbc.slb.com/SBCInstitute/Publications/Wind.aspx>

So when the Scottish Executive Planning Advice Note (2002) is adjusted for the change in turbine heights it is quite apparent it does not support the use to which Cloustons has put it and the very large area Cloustons has excluded from the LVIA because of its misuse of the Scottish report.

Given that Cloustons has been dipping into Scottish documentation about distance and wind turbine visual impact, it is noteworthy that they chose a relatively obscure document that does not cite turbine size rather than the better known Scottish National Heritage publications² which do take height into account.

It is apparent that the Scottish Executive Planning Advice Note table, adjusted for turbine height in no way supports Cloustons contention that from 2.1 – 7 kms the impact of 185 metre wind turbines is moderate and that from 7 kms the impact is low.

The SEARs require that LVIA “include photomontages of the project taken from potentially affected residences and in particular from all non-host dwellings within 2 km of a proposed wind turbine”. They do not set 2 km as the range within which photomontages are to be produced. Yet that, or thereabouts, is apparently what Cloustons decided to do.

The wording of the SEARs is quite explicit “include photomontages of the project taken from potentially affected residences”, and it is apparent from other wind farm projects that the Department uses them as a guide to the visual impact on each potentially affected property and to help it decide any recommendations for compensation.

Using a specious and misleading framework, Clouston Associates has chosen to ignore that very explicit requirement. Consequently there are potentially a significant number of properties for which relevant evidence of visual impact from the wind farm is not provided to the Department and the community.

Cumulative Impact

The SEARs are very explicit about the need to assess cumulative impact from Biala plus other wind farms, stating:

“provide a comprehensive assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the project ***taking into account cumulative impacts from surrounding proposed, approved or operational wind farms in the locality*** (emphasis added)”

The Biala LVIA notes that the Gullen Range wind farm is 5.5 kms away (in fact just outside the boundary of the mapped area Cloustons chose to present in the LVIA) and Gunning wind farm 7.2 kms away. There are people near those wind farms already suffering impact from them. Many of those properties also fall within the (turbine height adjusted) zone that Cloustons’ chosen Scottish Executive Planning Advice Note (2002) refers to as “visually intrusive”.

One would expect a cumulative impact assessment to include the impact on those residences from the existing wind farms plus the even taller turbines at Biala. But Cloustons appears to have totally ignored all those properties.

² Visual Representation of Windfarms Good Practice Guidance, 2006; and Visual Representation of Wind Farms, 2014.

Instead, its very cursory consideration of cumulative impact refers only to a few properties in Church Lane, about 2 kms from the Biala wind farm, for which it has already chosen to produce photomontages about the Biala impact.

The Department needs to make it clear to Newtricity that cumulative impact must include all residences already experiencing a material impact from other wind farms and within the appropriate ZVI for the Biala wind farm.

Conclusion

This LVIA has ignored the SEARs in major ways and fabricated misleading distance-VI categories that misrepresent the actual VI of the proposed wind farm. It should be totally rejected and perhaps Newtricity should be told to find a VI consultant that will fully comply with the SEARs and not present misleading information.