

Yass Valley wind farm Modification 1.

(1) The Visual Impact Assessment (VIA) by Green Bean Design (GBD)

Mr Homewood has once again produced a long winded VIA predictably claiming that a modification, of whatever sort, to any wind farm, will have no increased visual impact of any significance over and above that already approved. This time, he includes as backup, evidence from the deeply flawed Visual Assessment Bulletin (2016) (VAB) produced by the Department of Planning & Environment (DPE).

Mr Homewood has once again included false and/or misleading statements/diagrams which once again will be ignored by DPE.

By embracing the VAB, Mr Homewood has damaged the integrity of his consultancy.

For example, consider his treatment of Viewer Sensitivity, a cornerstone of the VAB.

To support the Department's Biala wind farm Assessment Report, Mr Homewood was hired by the Department as an "independent expert". In his peer review of the Clouston Associates LVIA he took issue with the author on the "key issue" (Mr Homewood's description) of viewer sensitivity:

"Within the category of sensitivity it would be expected that views from residential dwellings to be the most sensitive locations"

Mr Homewood would appear to have been consistently of this view having, for instance, in his Bango and Rye Park wind farm LVIAs, and no doubt others, rated residential properties as having the "Highest Sensitivity"

He has strong support from his peers. For example, Allan Wyatt from his expert evidence statement for the Stockyard Hill wind farm wrote:

"The visibility of a wind farm and the distance between the residential location and the development are the two criteria that vary within an assessment of the visual impact from a residential property. Viewer sensitivity is always rated as "high"."

Mr Wyatt also wrote in his Supplementary LVIA for the Yass Valley wind farm.

"The assessment of visual impact from residences is different to one undertaken from publicly accessible viewpoints. An assessment of visitor numbers is not applicable. The landscape sensitivity is always rated as "**high**", as it must be recognised that people feel most strongly about the view from their house and from their outdoor living spaces." (Mr Wyatt's bolding)

What caused Mr Homewood to change his opinion in both the Glen Innes Mod 4 and Yass Valley Mod 1 VIAs so that the viewer sensitivity from a rural residence was now "Moderate"

Was it because that rating was included in the flawed 2016 Visual Assessment Bulletin published by the Department? Mr Homewood knows as well as anyone that DPE and the consultants it hires are far from infallible.

Why didn't he respectfully disagree?

Why did he sacrifice the integrity of his consultancy to bolster his case? I agree it would have taken some courage.

When the draft VI Bulletin was open for public comment, both the Bulletin authors and DPE were offered the opportunity to cite the peer reviewed research that justified that "moderate" rating. No answer was forthcoming.

The same offer is made to GBD.

One of GBDs peers has a different view. From the Jupiter wind farm Response to Submissions published October 17, 2017, ERM stands by its beliefs:

“The assessment of visual impact from residences is different to that undertaken from publicly accessible viewpoints. An assessment of visitor numbers is not applicable. The landscape sensitivity is always rated as ‘high’, as it must be recognised that people feel most strongly about the view from their house and from their outdoor living spaces. This rating of high within this assessment differs from that suggest in Appendices 1: Table 5 of the Visual Bulletin whereby Rural dwellings are rated as having a moderate sensitivity.”

ERM is to be commended.

Mr Homewood is also silent, as he was when the draft Bulletin was open for public scrutiny, on other factors he now uses.

Does he agree that turbines situated 2 – 4 kms from a residence are in the “near middleground” and that the dividing line between far foreground and near middleground is at 2km? Does he agree with that whole table?

Does he agree that Scenic Quality for any NSW wind farm, as defined in the Bulletin will be moderate or less? I congratulate Mr Homewood for rating the Scenic Quality in this LVIA as Moderate. He could have easily justified a Low rating, but didn’t have to.

Does he know of any NSW wind farm that is located or planned in an area of HIGH Scenic Quality as defined in the Bulletin?

Does he agree that for a rural residence, only 4 of the 72 options in table 8 are available in practice? (of which he has used just one)

Does he agree that the green and the black lines are in the right place?

Does he agree that vegetation planting is the only mitigation strategy that needs to be considered (as he has), and does this agree with his earlier views on vegetation mitigation?

And finally, does he agree that under this Bulletin, no wind farm will be rejected in NSW?

False or misleading, an example. Increase in swept area

The VIA for the approved Yass wind farm evaluated the VI for turbines with hubs at 100 metres.

Mr Homewood properly tells us on Page 7 that:

“A 100- metre hub height is also used for this VIA similar to previous VIA”

and similarly elsewhere including comparative diagrams, which means that the rotor diameters are 100 metres for the previous VIA and 142 metres for this one.¹

Which means that the increase in swept area is 101%.

Mr Homewood then tells us on page 14 that the increase in swept area is 34%. This is not a mistake. His calculation relies on the comparison between the proposed swept area and the largest option in the approved Application, NOT THE ONE USED IN THE APPROVED VIA.

Using the qualifier “compliant” doesn’t lessen the offence.

¹ Apart from being the professional course of action, the advantage of keeping the hub heights the same is that Mr Homewood can write, as he does on a number of occasions, that there will be no more hubs visible from each residence, only “tips”. Eg:

“Where the hub height is 100 metres, consistent with previous VIA and a likely outcome for the reference turbine, the number of visible wind turbine hubs would not change, as the approved and proposed modification hub height remain the same”

Tips, of course, can be up to 20 metres long.

We are visually drawn to the moving parts of a turbine, so for Mr Homewood to state that the moving area impact of this modification is a third its actual effect, manipulating the numbers is deliberately misleading.

By repeating it in the main report, NGH Environmental is equally guilty.

Using the smallest rotor blade in the original VIA was presumably done to minimise the impact of the swept area. That now comes back to bite Green Bean Design.

(Mr Brett Lane, author of the EIS section “Proposed Turbine Modification Impacts on Birds and Bats” tells us that the swept area increase is 15%, which is even more misleading especially if you are a bird or a bat.

There is confusion in the Lane document as to what blade diameter he uses for the approved wind farm and consequently the distance the blades are from the ground.

On Page 5, we are told it is 121 metres, a figure confirmed by NGH in the Main Report.

On Page 9 he uses 128 metres, and on Page 10 he uses an unjustified 131 metres upon which much of his assessment is based.

To arrive at a minimal 15% increase, Mr Lane calculated swept area by using a rotor radius of 65.5 metres, an option not “compliant” as Mr Homewood would say, instead of the maximum 60.5 he quoted more than once. I put this down to a mistake. Like most mistakes in wind farm EISs, they miraculously tend to favour the developer.²)

False and misleading, an example. Wireframes

No wireframe supplied will give anywhere near an assessment of the visual impact suffered at the viewpoint. Even the Department knows they are grossly misleading as published and certainly don’t meet the requirements of the Visual Assessment Bulletin 2016.

To be representative, they need to be blown up to a size not specified, probably A0.

The VIA contains 11 wireframe pairs:

“illustrating the approved CWF wind turbines and the proposed wind turbine modifications”

and:

“The wire frame models and photomontages illustrate and contrast the approved CWF wind turbine and the proposed wind turbine modification.”

The wireframe pairs, being published in A4, preclude any opportunity for the reader to identify any disparity between the two views from each residence.

Being interested in whether Mr Homewood had used the same hub height for each of the pairs, I blew them up on the screen so I could measure tower height to half a millimetre. Impressively, he had.

But, both the approved turbine and the proposed turbine **are the same height**. No wonder you can’t tell the difference. We don’t know whether wireframe pairs are comparing 150 metre turbines with 150 metre turbines or 171 with 171. Either way all wireframes and the statements describing them are false and misleading.

Mr Homewood is the most experienced wind farm VI assessor in the country if not the world. DPE has regularly described him as an expert. Every VIA from GBD is authored by him. It would be difficult, therefore, to describe the above as an error.

² I too am guilty of the odd spelling and arithmetic mistake, but I don’t hold myself out as an expert, nor get paid for getting it right.

Photomontages

Plaudits to Mr Homewood for agreeing that previous photomontages as published were grossly misleading. We are now advised that these images must be printed at A1 and held at comfortable arms length.

My experience from the Jupiter VIA where we have high resolution photomontages and multiple wind measurement towers of known height and known location is that A0 (twice the print size suggested for Yass photomontages) gives a more accurate rendition of the true impacts.

Based on daily observation of smaller turbines at greater distances, the visibility and contrast of the turbines in the photomontages is unrealistic.

I'll leave it to the owners of the residences depicted in the photomontages to determine whether the base photographs were taken from the most impacted area of the residence and its curtilage.

VIA methodology.

On page 9, Mr Homewood listed the documents he reviewed and considered in preparing this VIA. By omission, Mr Homewood implies he did not read any Public or Agency submissions.

Also on page 9 we are advised:

“This VIA has not undertaken as (sic) assessment to verify the visual ratings determined in the original CWF Environmental Assessment.”

Are we surprised that Mr Homewood, in table 7, has reassessed the VI for turbines 21 metres taller with a 101% increase in swept area as exactly the same for all residences?

Of course not.

Zone of Visual Influence.

Mr Homewood defines a Zone of Visual Influence diagram on Page 6 as:

“A map, usually digitally produced, showing areas of land within which wind turbines are theoretically visible.”

Mr Homewood often cites the Scottish Natural Heritage Visual representation of windfarms: good practice guidance (SNH). In this VIA he cites the 2006 version in relation to wireframes. It is unclear why he didn't cite the 2017 version as he did in the recent VIA for Glen Innes Modification 4.

SNH (2017) recommends that ZVI diagrams for turbines greater than 150 metres in height be produced out to 45 kms. (Page 12). The original draft Wind Energy Guidelines and the typical wind farm SEARs recommended a minimum of 10kms. We are blessed that Mr Homewood produces ZVIs out to 10kms as the DPE's flawed Wind Energy Framework 2016 makes the concept voluntary. (The SNH document devotes the whole of Chapter 2 [8 pages] to ZTV [ZVI] maps, but I guess DPE knows best)

False or Misleading, an example. Assessment of Visual Effects, Figures 4, 5 and 6.

Figure 4 is an neither false nor misleading. If you do the sums (and you have to do the sums because Mr Homewood won't do them for you) you will find that the increase in swept area is 101%, not the grossly misleading 34% quoted elsewhere.

Figure 5 attempts to downplay the impact of this 101% increase in swept area. The top 2 diagrams display the approved and proposed turbines where 2 kms is represented by 9.1 cms. ie a scale of

21,978:1 (similarly for the 5km representation). At that scale, I agree that the difference in turbine height and swept area is not visually impressive.

The bottom two diagrams, by displaying numbers which are inherently small, in this case view angles, lead the average viewer to conclude that the comparative VI is next to nothing. Mission accomplished. Give the reader a real life example. What are the view angles of the line of print they are reading, and two lines for comparison? What are the view angles on the freeway of the car in front compared to the bus in front?

I see Capital turbines 11 kms from my residence. The view angle for the whole turbine is approximately 38 minutes (and I can't see the towers to ground level). They are clearly visible and prominent in the majority of viewing conditions

Figure 6 is described thus:

“At a view distance of 3.4 kilometres the approved CWF and proposed wind turbine modifications would be perceived at less than half the height of the amended wind turbines when viewed at a distance of 2.3 kilometres”

Firstly, the two turbine diagrams in Figure 6 don't show that at all, with the 3.4 km representation being slightly more than half the height of the 2.3 km version.

Mr Homewood used to display out of scale images of Capital turbines at various distances to claim the supposed negative exponential relationship between turbine height and viewing distance. Now he just claims it to be, as above (but it is now “perceived”).

Could Mr Homewood please cite the paper on which the above statement is based, containing the formulae that allowed him to make that claim.

To display a fairly accurate image of the current and proposed turbines at 2kms, view the right most image of Figure 6 in A4 at arms length. I would say the impact of the 101% increase in swept area is significant, especially when moving. Mr Homewood would not.

As an aside, why hasn't Mr Homewood, in the 20+ wind farm VIAs he has authored, ever published a montage with moving turbines?

The Visual Bulletin in the Wind Energy Framework.

Mr Homewood is the most successful VI consultant in Australia. In his DPE commissioned peer review of the Biala LVIA he boasts about his superior expertise. Why didn't he lend this knowledge to the Framework process by contributing a submission to the draft? I can't find it.

One can only assume that he could not improve it. As an easy pathway to the minimisation of Visual Impact it was as good as any developer could hope for. If he believes that, I totally agree with him.³

Mr Homewood reviews the conditions of consent. Condition 1 requires vegetative mitigation to be offered if requested to all residences within 5 kms of a turbine. He states:

“It is unclear how the conditions for residences listed in Table 1 differ in applicability to other residences within 5 kilometres of any wind turbine.”

³ When I read the comments from Kane Thornton (CEO, Clean Energy Council), who, officially or unofficially, had the details of the Framework and specifically the VI Bulletin days earlier than we serfs, I knew the local communities were in trouble:

“He said that while the proposed guidelines placed "more rigour" around the visual amenity of projects, they seemed "quite workable"”³

What is unclear? The VI Bulletin 2016 does not require mitigation above the black line (3.4 kms in this case), and only consideration between the lines. Stand up for your client. The Department can hardly say no.

A key provision of the VI Bulletin 2016 is the need for ongoing community consultation, especially with those most affected; non-associated residents. From my experience, the CCC is a key vehicle. The Epuron and Goldwind controlled websites would indicate that until October 5, 2017, there had not been a CCC meeting for 15 months and only 4 over the last 4 years. The Department places significant emphasis on the CCC but once again fails to enforce its processes. It will be interesting to see whether the new CCC membership is as stacked as the previous one.

Properties with residential rights.

Where is GBD's assessment of the Visual Impact on properties with residential rights? As Secretary McNally advised me on May 25, 2017,
"it is important for proponents to identify all land that may be affected by a proposal"

A question

Mr Homewood advises that:

"views toward additional wind turbine rotors and blade tips are not considered to result in magnitude of visual effect which is greater than the magnitude of visual effect associated with the approved CWF project."

That statement relates to the increase in height of 14%.

Where is the equivalent statement from Mr Homewood for the 101% increase in swept area?

2. Miscellaneous Comments

Once again the Department of Planning and Environment has inadvertently shown its biases by including in the description of the modification:

"minor changes to the location of ancillary infrastructure including access tracks, overhead and underground powerlines (up to 33 kV), and additional temporary construction compounds and laydown areas."

The proponent wants all of us to think those changes are minor, and they may well be right, but for the Department to agree before assessment is another example of the ingrained pro developer culture.

Neither NGH Environmental nor Green Bean Design warrant that their work is not false or misleading which is mandatory under section 6 of the EP&A Regulation 2000.

Once again the Department has allowed this transgression to occur.

My email to the Department on the subject remains unanswered and unacknowledged and unactioned.

Where is the complete list of properties contracted to the project, both hosts of turbines and infrastructure and neighbours. How can the local community, and indeed the Department and the PAC, properly evaluate this modification without such information. The proponent for the Bango wind farm, currently being assessed, willingly provided an update in the RTS.

Previous Responses to Submissions, being documents associated with a planning matter and therefore covered by Section 148B of the Act also contain false and/or misleading statements, but that is for another time.

There is a counterargument, and you don't need to be an expert.

The Yass Valley wind farm landscape was destroyed on February 1, 2016, when Mike Young and David Kitto recommended approval. Increasing the size of the turbines will not alter that fact.