

Visual Impact Assessment – more of the same

Australia's most successful assessor of the Visual Impact of wind farms, Green Bean Design, is getting closer to the perfect methodology:

Quote the Department's Visual ~~Impact~~ Assessment Bulletin¹ back at them. They can hardly object.² However, there is ample un rebutted evidence that the Bulletin is flawed. A number of submissions to the Bulletin draft, when exhibited, attest to that. Unfortunately, those submissions, some much better than mine (attached³), are impossible to find on the Department's website. But a VIA based on a flawed Bulletin must, in itself, exhibit some flaws you would think.

Comments on GBD's individual VI assessments.

Both the Department's Independent consultant (O'Hanlon Design - OHD) and the most senior wind farm Assessment executive (Mr Mike Young) are on record that GBD's VI assessments for the original Rye Park wind farm are understated.

OHD, in their report, found that not one of their assessments of Visual Impacts on the 50+ non-associated properties within 3km of a turbine was less than the VI for that same property proposed by GBD. **Not one**

Mr Young then stated:

“The independent consultation felt that the Proponent's visual assessment was too low and DPE agrees.”⁴

In this VIA for the modification, where these residences are faced with swept area increases (the visual component that attracts our attention) per turbine of 71%, not one of them receives a higher VI rating from GBD than previously. **Not One**

Defies belief. Perhaps the Department Assessor can defend it, on merit.

Clearly, this VI conclusion from the Modification VIA also cries out for peer review. The proponent thought a peer review was necessary, surely the Assessment should also include one.

Off topic slightly:

The VIA Peer Review by Moir Landscape Architecture is missing the key component.

How can a Peer Review of a **Visual Impact** Assessment make no comment on these individual **Visual Impacts** as assessed by GBD.

The first reason that comes to mind is that David Moir also has trouble with GBD's VI ratings so is forced to confine himself to method and process. Even more reason for a departmental Peer Review.

Swept Area

As a rural lifestyle resident who views 4 Capital WF turbines (124 metres high at a distance of 11+ kms) from my residence and property daily, my eyes immediately focus on the spinning blades. I may be strange, but those spinning blades and the distance they are from my viewpoint, are the key determinants of the visual impacts I suffer. I find it strange that Table 3 on page 17 of the GBD VIA, headed:

“Consented RPWF and proposed Mod 1 wind turbine design criteria”, swept area of the blades doesn't get a mention. Swept area doesn't get a mention anywhere in the GBD VIA probably because the Bulletin doesn't mention it either.

¹ The document title changed from the **draft** version to the **final** version. The wind industry doesn't like the truth and “impact” sounds like such a dirty word, even if true.

² This methodology only works in NSW as no other jurisdiction has adopted the NSW VI Bulletin.

³ Nothing of significance seems to have made it into the final published Bulletin.

⁴ Transcript of the Department/Planning Assessment Commission meeting held Wednesday, 15 March, 2017

Consider that the swept area of the RPWF modification 1 only, per turbine, is much larger than the total swept area of a Capital turbine.

On an allied note, GBD claims (VIA, Page 10) as they should:

“The selection of the Mod 1 design criteria has adopted a maximum rotor diameter to capture views toward tip of blades in a worst-case scenario.”

Unfortunately they (and Moir) did not adopt the maximum rotor diameter of 170 metres.

The ongoing confusion.

For some years, Mr Andrew Homewood from Green Bean Design has claimed that the perceived height of turbines is inversely proportional, **exponentially**, to the distance between the viewer and the turbine.

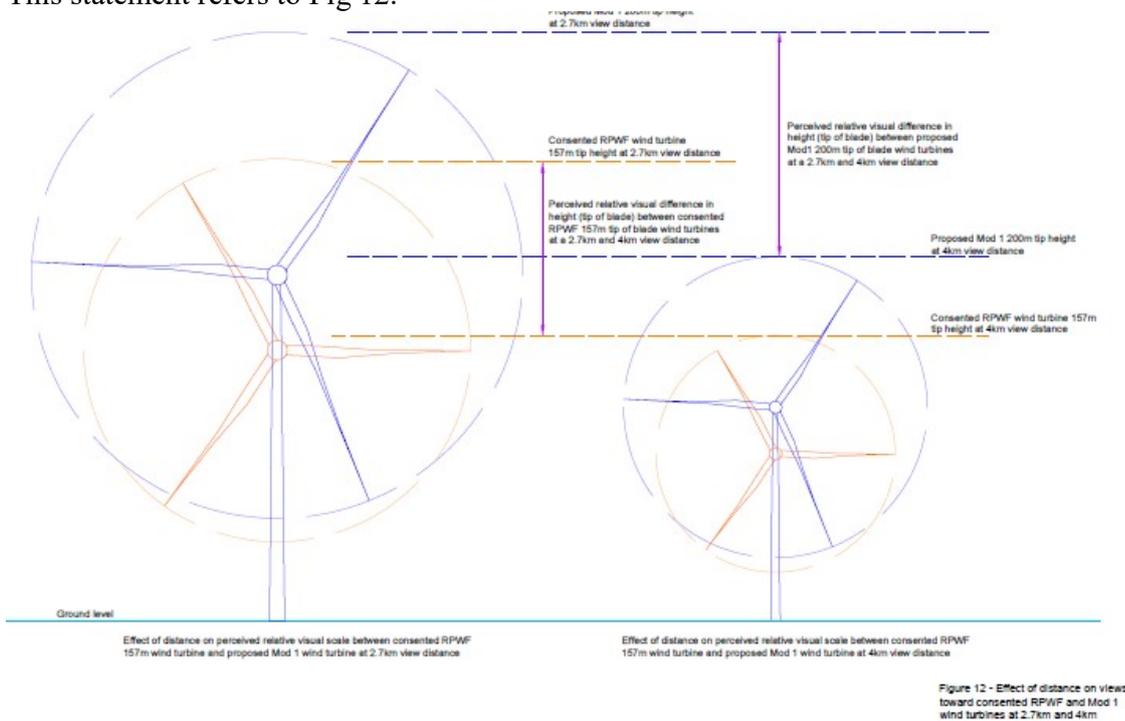
“The photographs, illustrated in **Figure 25**, demonstrate the degree to which the apparent visible height of a wind turbine decreases with increasing distance (in a negative exponential relationship)” (Bango wf LVIA p52).

Whilst that claim has finally disappeared can anyone explain from Page 39 of the VIA

“From a view distance of 4km the *consented RPWF and* proposed Mod 1 wind turbines would be perceived at less than half the height of the proposed Mod 1 wind turbine when viewed at a distance of 2.7km.”

From a comparison with the **same claim and diagram** in the Modification Report (page 79), I assume the words I have italicized above should be deleted.

This statement refers to Fig 12.



Even as modified, the statement is incorrect. Figure 12 does not show that at all. Is this the last vestige of GBD’s claim that perspective lines are curved?

NGH didn’t question it in their Modification Report. Moir didn’t question it in their Peer Review. The Department never questions it even when it’s put under their noses and GBD wont justify it.

I remain confused.

Wireframes and Photomontages.

As published, none of them shows what the wind farm will look like in scale or distance from the viewpoint, either before or after the modification.

I'd quote again from the Act about false or misleading statements in a planning document, but what's the point.

Disappointment

I am still disappointed that Mr Homewood (GBD Principal) abandoned his long held view that viewer sensitivity from residential properties was rated anything other than "Highest" (Bango WF LVIA P55). Also, from his peer review of the Biala wind farm LVIA, commissioned by the Department, he wrote:

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

When given the chance in his LVIA for the Glen Innes WF Mod 4 to reinforce his expertise by saying he disagreed with the Department's flawed Visual Bulletin, he didn't. For obvious reasons, he chose what the Bulletin recommended – Level 2/Moderate. (If every assessment component in the Bulletin turns out to be Moderate, then the VI assessment of any wind farm is predetermined)

Interpreting the flawed Bulletin

The methodology, as proposed by GBD of assessing the VI of modifications has apparently been accepted by the Department.

Even though the Bulletin states:

"It will also apply to any modification applications submitted after the date of the Bulletin that propose additional turbines, or a significant reconfiguration or increase in height to the approved turbines."

GBD has consistently argued that, as the wind farm is approved, they only have to consider impacts of the Modification alone. So, for example, when considering vegetative mitigation, they only have to consider the vegetation that shields the top 50 meters (150 m to 200 m) and plant accordingly. Wait a minute, have I got that wrong?

GBD is very careful to claim the wind farm and its turbines are approved, not their VI assessment of the approved wind farm.

Also there is no evidence that GBD or the proponent has consulted with visually impacted residents to understand their perception of their landscape and what the introduction of 200 metre turbines will do to it.

With an incomplete process resulting in underrated impacts, how can GBD almost dare the Department to challenge their interpretation of the Bulletin including:

- The NSW Wind Energy Visual Bulletin Stage 1 Preliminary Environmental Assessment (pre-lodgement) guidelines. Stage 1 of the Guidelines is not considered to be pertinent to the proposed Mod 1 VIA as the RPWF is a consented Project and does not require SEARs.
- The NSW Wind Energy Visual Bulletin Stage 2 Assessment and determination which addresses the preparation of a Visual Baseline Study as part of the Environmental Impact Statement and submission to determine the development application. Stage 2 of the Guidelines is not considered pertinent to the proposed Mod 1 VIA as the RPWF is a consented Project.
- the Mod 1 VIA wind turbines have not been evaluated against the Guidelines Visual Performance Objectives as there are no objectives regarding proposed modifications."

Was this interpretation discussed and agreed with either the proponent or its consultants? In the interests of transparency, can the Department provide copies of the Business Contact forms for the

Proponent /Department face to face meetings of 22 January, 5 June and 25 October 2019 and the “numerous other tele-conferences over the last year”. Please treat this as an informal GIPA application, if necessary.

Zone of Visual Influence/Zone of Theoretical Visibility Diagrams

We are advised:

“The Zone of Visual Influence (ZVI) Diagrams (**Figures 3 to 8**) depict the area of land from which the consented RPWF wind turbines and proposed Mod 1 wind turbines would be theoretically visible (as well as overall number of wind turbines being visible at tip and hub height). The ZVI Diagrams demonstrate that the visibility of the turbines for the consented project and the proposed Mod project would be very similar in extent and location.”

How would we know? The ZVI diagrams are incomplete.

The Scottish National Heritage, Visual Representation of Wind Farms - 2017, upon which GBD partially relies, says, on the issue of ZTV:

“The table below recommends the initial ZTV distance for defining the study area based on turbine height. Greater distances may need to be considered for the larger turbines used offshore.⁵”

Height of turbines including rotors (m)	Recommended initial ZTV distance from nearest turbine or outer circle of wind farm (km)
up to 50 ¹	15
51-70	20
71-85	25
86-100	30
101-130	35
131-150	40
150+	45

Instead of the recommended ZTV distance of 45+ kms, the GBD VIA, to the North and South extends out to a distance of barely 10 (ten) kms on each of their ZVI diagrams.

Properties with residential rights.

Where is GBD’s assessment of 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”

None of this is new to the Department, nor to GBD.

⁵ Or onshore (my footnote)