## **Crookwell 3 - Amended EIS.**

What a mess this Crookwell 2/3 combination is.

Firstly you have the former, approved over 10 years ago, that the Department, in isolation, believes is "under construction".

Then, Crookwell 3 spans Crookwell 2 and the politics of the ACT 91 MW purchase must influence the Crookwell 2 Modification 2 approval process.

The two projects should be treated as one by the Department and the PAC but that is difficult, as one is approved.

We are sent from one to the other and back again to try and understand the justification and the impacts.

Regardless of what we say, both "modifications" will sadly be approved, to the detriment of the local community.

The Crookwell 3 PAC meeting was held on March 17, 2015 following which the EIS was returned to the Department for reasons unknown.

Over eighteen months later it appears again.

There is obviously correspondence between the Department, the PAC and the developer since that PAC meeting. None of it is published, to the disadvantage of the community. I requested some of it, but the Department of Planning, with its usual intransigence, refused.

Mike Young did confirm:

"The PAC has asked the Department to respond to a number of matters stemming from the public meeting."

but neither the request nor the response was ever published. Whatever was communicated, it must have been, to the developer, the Department or both, satisfactorily addressed.

Some comments on the Main Report.

Copying and pasting from the Crookwell 2 Modification 2 EIS results in statements such as:

"The proposed new turbine models enable the Crookwell 3 Wind Farm to generate more energy per turbine and increase the overall energy yield of the project. This is due to the increase in turbine height providing access to stronger wind resources, the increase in the swept path area due to the longer blade length, and an increase in generator capacity in the nacelle (up to approximately 3.6 Megawatts (MW)). These changes combine to increase the amount of the wind energy harnessed by each turbine."

The turbine height is NOT increased in this amendment, and on the developers logic, the lowering of the height of the generator would result in it being in a weaker wind resource area. The increase in turbine output is due to turbine efficiencies and a greater swept area. But why worry about the facts. (Note in the next sentence 4629 turbines. Does the Department ever read this rubbish before deeming it suitable for exhibition? This is but one example.)

We are told:

"The reduction in overall turbine numbers will reduce the Project's overall environmental impacts."

But not told what the overall impact a 56% increase in swept area per turbine will be.

<sup>&</sup>lt;sup>1</sup> Page 3, C3WF, Addendum EA Main Report V4

and:

"The project team has also drawn upon, where appropriate, the environmental assessments undertaken as part of the original project application for the Crookwell 2 Wind Farm."

The community cant draw upon these documents as the Department won't publish them, despite requests.<sup>2</sup>

<u>Visual Impacts</u> - or Visual Effects as Green Bean Design (GBD) quaintly calls them.

It would be hard to ignore a GBD wind farm Visual Impact Assessment (VIA). Let's face it. This could be the last one we see in NSW.

As highlighted in my Crookwell 2, Modification 2 submission, I questioned whether the Department should take any notice of the output from the Green Bean Design consultancy. That question is reinforced by this amended VIA and may be further reinforced after a review of the Bango wind farm EIS.

Not having the PAC's comments, if any, on Visual Impact and cumulative Visual Impact and any departmental responses on those topics and subsequent departmental advice to the developer severely restricts this response and others, but then, maybe that is the intent.

If you were new to this project and were just evaluating the Visual Impacts of this modification from the documents in the amended EIS you would assume:

- The departmental Visual Impact assessment for the prior version of the project stands as written.
- The PAC accepted the departmental Visual Impact assessment as there is nothing published to the contrary.
- This is a minor modification for which the Department has generously allowed a 28 day exhibition period (I assume because the community also had the concurrent Crookwell 2, Modification 2 to assess)
- The O'Hanlon expert peer review whilst critical of GBD's original LVIA in a number of areas, particularly cumulative visual impacts, to which GBD wrote a 49 page response is an irrelevance as it is not mentioned either in the current VIA or the main report and none of the issues raised are acknowledged, let alone addressed.

GBD principal Andrew Homewood concludes:

"This Amended VIA has illustrated the C3WF LVIA 2012 against the Amended C3WF wind turbine design and concludes that the removal of up to seven C3WF LVIA 2012 wind turbines, including wind turbines within proximity to residential dwellings adjoining the Woodhouselee Road corridor, would not result in any significant reduction in overall wind turbine visibility for key non associated residential dwellings surrounding the C3WF development and for motorists travelling along local roads."

I think he is right for the wrong reasons. The irreparable damage was done in 2005. (ignoring the 8 dinky Crookwell 1 turbines which could have been left as a permanent reminder to the wind energy folly)

<sup>&</sup>lt;sup>2</sup> Another document that the Department didn't think worth publishing would appear to be AECOM Australia Pty Ltd (2012) Crookwell 2 Wind Farm New Transmission Line Tower Visual Impact Assessment.

In arriving at the above conclusion, GBD published, once again, a set of misleading photomontages. These low resolution panoramic views, whilst giving you a sense of how the wind farm fits into the landscape, in no way prepare you for what the real visual impact will be, coupled with unrealistic clarity and contrast.

Mr Homewood would argue that in these photomontages you cannot tell the comparative differences between the 2012 and 2016 turbines. He is right, once again for the wrong reasons.

A good example of how photomontages mislead is to compare the montages on the cover of Green Bean Design's July, 2012 LVIA<sup>3</sup> with the one on the cover of the Department's February, 2015 Assessment.<sup>4</sup> Both are incorrect.

There is a third variant, the official photomontage, Figure 52<sup>5</sup>, different once again.

I also draw your attention to the visibility and contrast of the fifth turbine from the right across all three montages.

## The Department Assessment Version 2

My main interest with Crookwell 3 will be in comparing the next Assessment with the 2014 one, evaluating the reasoning and interpreting the inevitable departmental linguistic gymnastics. I will be particularly interested in the Departments treatment of cumulative visual impact as in the original assessment they said:

"Crookwell 1, 2 and 3 and Gullen Range wind farms are relevant to cumulative visual impacts" and Crookwell 3 should really be treated as two separate wind farms from a cumulative impact perspective.

The Department's comments on Bushfire and Firefighting

"The Department's assessment concludes that these risks are low and manageable" may need to be reassessed given the powerful argument put forward by a local speaker at the Crookwell Framework meeting and output from the offered meeting of relevant parties.

In justification, could we have something a little bit more persuasive than:

"The Department considers the proposal to have merit and to be in the public interest." All proposals have some merit.

I hope I've seen the last of any wind farm being justified because it is in the public interest as this is now highly questionable. Ask the residents of South Australia.

Why is it in the public interest for our electricity bills to rise at a much faster rate than the CPI? To the citizens of the United States (and probably the wider Japan) it was in the public interest to drop the bomb on Hiroshima as many combatants and civilians were saved by the early ending of WWII. To the citizens of Hiroshima, not so much.

 $\frac{https://majorprojects.affinitylive.com/public/9f03e982e7e6692b15281aa52da78bd0/Appendix\%2006\ Landscape\%20\&\%20\ Visual\%20Impact\%20Assessment\%20(part\%201).pdf}$ 

 $\frac{\text{https://majorprojects.affinitylive.com/public/4195650d1f03d1f61b55a1c30a122402/Secretary\%20Environmental\%20Assess}{\text{ment}\%20Report \ \%20Crookwell\%203\%20Wind\%20Farm.pdf}$ 

 $\frac{https://majorprojects.affinitylive.com/public/9aaa46b85109245ea46bf611c625ea4e/Appendix\%2006\ Landscape\%20\&\%20V}{isual\%20Impact\%20Assessment\%20(part\%205).pdf}$ 

<sup>2</sup> 

I expect the next Assessment to shed some light on the issues raised in my ponderings below.

## A tale of two wind farms

There is an approved NSW wind farm; Crookwell 2. Its developer, being a winner in the last ACT renewables auction, now has an arrangement with the ACT Government to provide 91 MW of capacity. Why would they then reduce the number of approved turbines by 13 in the Crookwell 2 modification 2 (C2M2) currently on exhibition?

The reasons given in the C2M2 EIS are:

"The proposed modification seeks to further reduce the environmental impact of the project and reflect the significant developments made in turbine technology, since 2005."

Normally, we would completely discount the first reason as indicative of wind farm developer insincerity, but set that aside for a moment.

The technological advances enable up to 3.6 MW of nameplate capacity which from 33 turbines gives the developer enough to meet their ACT commitments with a safety factor.

There are other advantages of course. The hosts, who have been waiting for their pot of gold for 15 years, will get less (on the assumption that their lease payments are per turbine and unchanged). Construction and maintenance costs should also decline.

Community contributions, normally based per turbine, will be significantly reduced.

It also enables the developer to try and make a case that cumulative impacts (mainly Visual) are reduced.

My guess is that the other part of Crookwell 2 modification 2, increased turbine size and capacity, would probably have passed through the planning process without the need to decrease the turbine numbers given the ACT/NSW politics.

However, the first part of the justification above, reducing the perceived environmental impact, is key, not for Crookwell 2 but for Crookwell 3.

Constructing Crookwell 2 and 3 together offers considerable economies of scale as a side benefit but let us examine the amended Crookwell 3 application for other benefits.

The reasons given for the Crookwell 3 amendments are, unsurprisingly:

"Since the Secretary's Assessment Report was prepared, a number of changes have been made to the project to further reduce its environmental impact and reflect the significant developments which have been made in turbine technology."

As mentioned previously, the reasons the Assessment was sent back to the Department 18 months ago and the departmental response have never been disclosed, despite requests. We can only guess.

Maybe there was a compromise offer from the developer. It has been done before.

Why would the Crookwell 3 developer delete 7 turbines when they had the departmental recommendation, albeit with some unattractive (to the developer) conditions of consent? It wasn't to balance the increased swept area (the turbine heights have remained constant) as the PAC/Department have never taken too much notice of the Visual Impact arguments of increased swept area alone. It wasn't in order to convince non-associated properties to join the Neighbour Benefit Sharing Scheme, because the key ones haven't, according to the VIA.

Why would they forgo the benefits of 7 turbines, each generating close to 12,000 Renewable Energy Certificates potentially valued at over \$90 each? In total \$7.56 million per annum. (plus the value of electricity produced which on current estimates will continue to rise <sup>6</sup>)

A key reason could be the property acquisition provisions in the Assessment. Ultimately, the developer could be obliged to acquire 6 properties (one subdivided into 3).

This seems a reasonable supposition as the 7 turbines removed were those closest to the 6 properties. The closest Crookwell 2 turbine to the 3 block subdivision slated for acquisition was also removed. (The residents most benefiting from the Crookwell 2 downsizing appear to be hosts, but that's another story) Now, would a hard nosed wind farm developer give up \$7.56 million per annum on a gamble that the Department might be nice to them. My guess is no.

The cynic in me sees the reverse Crudine Ridge compromise:

Make the case that the Visual Impact for Crookwell 2 has been lowered and the Visual Impact for Crookwell 3 has been lowered and remove the Crookwell 3 (and the odd Crookwell 2) turbines closest to the 6 impacted residences and the Department might be convinced to withdraw the acquisition requirement.

The 18 month delay since the original Assessment was written has enabled new planning personnel and management to bring a fresh outlook to the assessment process.

But again, would you rely on a wink and a nudge? I'd want something much more concrete than that. I could be wrong. Let us see.

I note though, the PAC accepted the argument for Crudine Ridge that removal of a couple of the closest turbines did not alter the Visual Impact on the affected residences and imposed acquisition rights. Here, similar logic should apply. Removing a few turbines from the Crookwell 3 layout should not extinguish the already recommended acquisition conditions. The visual impact is not diminished.

Green Bean Design supports that view.

For residences 8, 62, 63, 64 and 65, which are subject to acquisition, Mr Homewood opines that these Crookwell 3 modifications have the effect of:

"resulting in no change to C3WF LVIA 2012 visual impact rating"

For the subdivideable property "Rainmore" (R117, R118 and R119), also subject to acquisition, we don't know as he never tells us.

This view is also reinforced by the conclusion to the GBD VIA as quoted above.

## A final question for the Department.

Has there been a CCC meeting in the last three years for either Crookwell wind farm? The published minutes against both projects would suggest not. If not, what has the Department done about it?

<sup>6</sup> Infigen Production and Revenue Report Q1 FY17

http://www.asx.com.au/asx/statistics/displayAnnouncement.do?display=pdf&idsId=01796344

Base load futures pricing factoring in the Hazelwood closure.

http://reneweconomy.com.au/know-your-nem-is-decline-of-car-industry-undermining-volumes-33846/