

# Glen Innes WindPower Pty Ltd

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3 July 2014

Mr Toby Philp  
Senior Planner  
Department of Planning and Infrastructure  
23-33 Bridge Street  
SYDNEY NSW 2000

*Via email: toby.philp@planning.nsw.gov.au*

Dear Toby,

## **RE: Response to submissions relating to MP07\_0036 Mod 2 (Glen Innes Wind Farm)**

Glen Innes WindPower Pty Ltd (GIWP) has reviewed the submissions made to NSW Department of Planning and Infrastructure (NSWDPI) in relation to this modification application, and has laid out responses in the attached tables. Additional information has been requested by NSWDPI, and we have attached additional reports and commentary as appropriate. These consist of updated aviation impact assessment, and memorandums on traffic (swept path) and noise modelling.

### **Submissions considered**

GIWP has taken the list of issues raised by the Landscape Guardians (LG) submission (94832), noting that this is identical to the submissions from:

- Geoff W Putland (94823)
- Geoffrey Putland (94825)
- Eungai South Wiled Trust (94820)
- Green Valley Wiled Trust (94827)
- Furracabad Station Wilmar Trust (94863)

GIWP notes that submissions by those Trusts (94820/94827/94823) display Ronski Pty Ltd as Trustee, and are signed and submitted by G W Putland as sole director. As a result of Mr Putland's involvement on all those submissions, we have considered them as a single submission.

Submissions by Ashley Peake (94334 and 94818), Brian and Nerolie Winter (94816) and Daniel McAlary (94960) are itemised and responded to at the end of the main submission document.

Comments by NSW Trade & Investment (94876), Office of Environment & Heritage NSW (94830), RMS Grafton (94647), NSW Rural Fire Service (94883), Department of Primary Industries NSW (94645 and 94853), NSW Environmental Protection Agency (94651) and NSW EPA Noise Division (unreferenced) are also dealt with separately.

### **Changes to approval**

In the table of responses to submissions, GIWP has indicated where it is prepared to accept changes to the current conditions of approval. These changes relate to physical turbine size (in metres only), and to micro-siting. GIWP does not consider that any other changes to the conditions are necessary other than in regard to incorporation into Condition 1.1 of the Terms of Approval of the additional material submitted with this modification application, and subsequent response.

If you need any further information from GIWP, please do not hesitate to get in touch.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Paul Stangroom', with a stylized flourish at the end.

Paul Stangroom  
Glen Innes WindPower Pty Ltd

**ENCLOSED:**

Appendix F - Glen Innes WF Aviation Impact Assessment Rev 3.pdf

140626 GIWF - Noise Comparison Table rev3.pdf

236777-GIWF-Traffic-Swept Path memo-rev0.pdf

	<b>Issue raised</b>	<b>GIWP Response</b>
<b>LG Ref</b>	<b><i>Landscape Guardians / Mr G W Putland / various Trusts - Objections 94832 / 94820 / 94827 / 94863 / 94823 / 94825</i></b>	
1.	<i>As the department is aware, the vast majority of objections to Wind Farms is where turbines are located within two kilometres of non wind turbine landowners property. In the case of the Glen Innes Wind Farm (GIWF) the objection is in relation to wind turbines that are within two kilometres of non windfarm turbine land owners properties – objection is to turbines numbered 15, 16B, 16C, 17, 19, 21B, 22B and 20B.</i>	
2.	<p><i>It seems very clear that the requirement of the NSW Government Draft Planning Guidelines: Wind Farms 2011 is to have a two kilometre setback so that no disputes exist between a Windfarm Developer and non- turbine sponsor land owners within two kilometres of the development.</i></p> <p><i>All of the current ongoing disputes and possible future legal litigation in relation to the GIWF would be eliminated if the department modified the GIWF Development Approval so that it complies with all of the NSW Windfarm Guidelines (viz: in particular the 2km setback) which would then also comply with the Glen Innes Severn Council's Development Central Plan for Windfarms.</i></p>	<p>GIWP obtained development consent in 2010 under the planning guidelines relevant to the GIWF project application at the time, and have submitted this modification under those same guidelines, taking into account information provided by NSW DPI regarding how to use the newer NSW Draft Planning Guidelines Wind Farms (issued in December 2011) ("<b>Draft Guidelines</b>") in this type of case. See item 11.3 below.</p> <p>Approval was granted in 2010 for these locations.</p>
3.	<i>In relation to the GIWF, we also have the situation where ( GIWP) are using compliance with the NSW Windfarm Guidelines where it suits them, but stating that the existing approval was prior to the NSW Windfarm Guidelines where it is not favourable to them viz: the 2km setback requirements.</i>	See Item 11.2 below.
4.	<i>Also there appears to be no acceptance by GIWP that here has been, and remains, strong opposition to the GIWF. GIWP continues to do very little to understand this opposition and to work with affected local residences to find a solution for all parties.</i>	GIWP's feedback from the community has been generally positive. A community consultation committee is in place with representatives from a range of stakeholders, and a community information session held in December 2013 provided information to a wide section of the community, again with generally positive feedback.
5.	<p><i>Unfortunately it appears GIWP are continuing their past practice of not engaging with the local community. The approval modification requested by GIWP viz:</i></p> <ul style="list-style-type: none"> <li><i>- the installation of larger wind turbines, and</i></li> <li><i>- Micro-siting of two wind turbines within the approved layout to accommodate the larger dimension wind turbines, is not minor (as claimed by GIWP). It is supported by over 500 pages of submissions, much of which is very technical in nature, and which has been prepared over 6 to 9 months.</i></li> </ul>	

	<b>Issue raised</b>	<b>GIWP Response</b>
6.	<i>The period of response for GIWP modification request has been limited to 14 days – and as the NSW Department of Planning and Infrastructure (NSWDPI) is aware over 7 days of this time (50% of the total submission time) has been taken up in the interested parties receiving the notification from the NSWDPI e.g. letter dated 17/3/14 arrived 24/3/14</i>	GIWP submitted the modification application to NSWDPI, who determined the extent of the notification period, and granted a further week extension to a number of parties.
7.	<i>It is inconceivable how GIWP could expect any person to:</i> <ul style="list-style-type: none"> <li>- Read the technical submissions prepared by GIWP,</li> <li>- Determine whether and what type of independent expert advice is required in order to properly assess the modification request,</li> <li>- Determine the names of suitable organisations to provide such advice,</li> <li>- Prepare and provide a brief to these organisations requesting their submission on the cost and timing of completing the work requested in the brief,</li> <li>- Select the independent expert/s to complete the work,</li> <li>- The independent experts to complete the work,</li> <li>- Receive the independent expert/s report/s,</li> <li>- Discuss and understand the independent expert reports,</li> <li>- Prepare a submission based on the independent expert advices, and</li> <li>- Finally lodge the submission.</li> </ul>	GIWP does not stipulate the exhibition time. This is set by the NSWDPI.
8.	<i>GIWP do not appear to want anyone to undertake a proper and well considered assessment of their modification request. The reason for such an approach escapes us other than the obvious conclusion that they do not wish to engage with local affected non windfarm landowners and the community generally.</i>	GIWP does not stipulate the exhibition time. This is set by the NSWDPI.  Speculation as to GIWP's motives are unhelpful. We have engaged with the community.
9.	<i>If GIWP are genuine in their desire to engage with the local community, then to assist local affected residents in their assessment of the requested modification GIWP should have made available to the local community, say 10 hard copies of the detailed submissions, each in a separate lever arch folder, for use by local residents.</i>	GIWP supplied 12 x hard copies of the final documents as well as 12 copies on CD as instructed by the NSWDPI.
10.	<i>Objection is made to the modification requests by Glen Innes WindPower viz:</i> <ul style="list-style-type: none"> <li>- Replacing the existing approved turbines with higher towers, larger diameter rotors and increased sweep area which are outside the current approval dimensions, and the repositioning of turbines 13 and 13B which is necessary to accommodate the larger dimension turbines (including towers).</li> </ul>	

	<b>Issue raised</b>	<b>GIWP Response</b>
<b>11</b>	<b><i>The reasons for our objection are set out below:</i></b>	<b>GIWP Comments</b>
11.1	<i>The approval for the GIWF lapsed on or about 2nd October 2012. The extension granted by the NSWDPi on 16th August, 2013 is not valid. Therefore this modification request cannot be considered by the NSWDPi.</i>	<p>The new extension date was correctly assessed by NSWDPi based on the timing of the appeal judgment. Order was made on 18<sup>th</sup> August and 2<sup>nd</sup> September 2010. The approval has a 3 year validity. Objection considered not valid.</p>
11.2	<i>It is incorrect to categorise the proposed modifications requested by GIWP as minor.</i>	<p>GIWP are only changing the hub and tip heights of the wind turbines and the resultant variation report is to look at the implications of this change. The remaining infrastructure, the intent of the development and the size of the project is still the same. In particular:</p> <ul style="list-style-type: none"> <li>• The wind farm project approval MP 07_0036 approved the construction of 25 turbines at specified locations with limited micro-siting permitted. The current modification seeks no change to the number of turbines or the specified locations with limited micro-siting permitted, which we expect to be clarified in the approval.</li> <li>• The approved project included provision for the wind farm to be interconnected by 132kV transmission connection with a 33kV substation. The modified project seeks no change to this provision.</li> <li>• The nominal turbines considered for the approved project had a rated generating capacity of up to 3 MW. The nominal turbines considered for the modified project also have a rated generating capacity of up to 3MW.</li> </ul> <p>This modification application seeks only an increase in the overall approval envelope for the turbines to accommodate the use of more efficient turbines which have become available since the approved project was assessed in 2008. The approved project considered nominal turbines with a hub height of up to 80m and ultimate height of 130m at the tip of the rotor. The nominal turbines considered for the modified project have an increased hub height of up to 89m and ultimate height of 150m at the tip of the rotor.</p> <p>As stated in the Environmental Assessment prepared for the Section 75W modification application, should the modification be approved, the actual turbines installed on the site would be selected from available turbines, including those assessed in the Environmental Assessment, which fall within the modified approval envelope with a generating capacity of up to 3MW.</p>

	<b>Issue raised</b>	<b>GIWP Response</b>
11.3	<p><i>The requested modifications have been assessed against “some of, but not all of” the requirements of the Draft NSW Planning Guidelines: Wind Farms 2011 and the Glen Innes Severn Councils Development Control Plan for Wind Farms.</i></p> <p><i>The modifications requested should be assessed against their original approval criteria/law.</i></p>	<p>A letter dated 18/4/12 from the NSWDPPI outlined the new Draft Guidelines and how already approved wind farms were to utilise the Draft Guidelines as follows:</p> <p><b>“4. Applications that have been approved</b></p> <p>Proponents are encouraged to adopt relevant provisions of the guidelines in the operation and construction of projects.</p> <ul style="list-style-type: none"> <li>• It is recommended that proponents consider relevant provisions of the draft guidelines in relation to noise management, decommissioning, monitoring and performance compliance in the construction and operation of the project.</li> <li>• It is strongly recommended that proponents, if not done so already, immediately establish a Community Consultation Committee to provide for ongoing communication with the local community. Appendix C of the draft guidelines provides guidance on the establishment, membership and operation of the committee. The Department will assist proponents with the appointment of an independent committee chair and in the selection of members.”</li> </ul>
11.4	<p><i>Consultation with local non windfarmer landowner residents, within 2 and 3 kilometres of the windfarm, has not occurred in relation to the modifications requested.</i></p>	<p>Consultation has occurred, as detailed in section 5.1.2 and appendix I of the modification EA.</p>
11.5	<p><i>The proposed modifications do not comply with the conditions of the Draft NSW Planning Guidelines: Wind Farms 2011 or the Glen Innes Severn Councils Development Control Plan for Wind Farms.</i></p>	<p>See item 11.3 above. The original project approval was granted before the Draft Guidelines were issued in December 2011. We have taken into account recommendations provided by NSWDPPI as to how to consider those guidelines where projects are already approved. The original project approval took into account the Glen Innes Severn Council’s DCP for Windfarms.</p>
11.6	<p><i>Visual impact is one of the most important factors in community assessment of Wind Farms. The larger turbines substantially add to the already negative impact to the local landscape environment by the GIWF.</i></p> <p><i>It is acknowledged in Aurecon\GIWP report that shadow flicker will exceed the guidelines at two non-associated wind farm residences.</i></p>	<p>The shadow flicker assessment undertaken considers a “worst case” scenario, where there is no cloud cover, and wind turbines are always oriented towards creating the maximum shadow.</p> <p>The effect of screening by trees or built structures was not included in the computation of the visual catchment as data was not available for the relevant heights.</p> <p>Accordingly, the computed shadow assessment will overestimate the extent of</p>

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		<p>the wind farm's visual catchment. This applies equally to the original assessment which is used to compare the relative changes of this proposal.</p> <p>Clauses 2.1 and 2.2 in the current project approval determination conditions address screening by mutual arrangement in order to further mitigate the visual impact.</p> <p>GIWP is committed to compliance with all the requirements of the Project Approval.</p>
11.7	<p><i>It is not correct to conclude, as Aurecon\GIWP do, that the requested modifications will have similar environmental impacts as the approved project - the turbines are larger, higher and have a greater sweep area.</i></p> <p><i>The number of visible turbine hubs and turbine blade tips has increased at many locations viz: (table included in LG submission)</i></p> <p><i>Increased turbine dimensions will be seen from the above properties (as per table) which is totally unacceptable.</i></p>	
11.8	<p><i>We absolutely agree with Aurecon who state:</i></p> <p><i>(a) In Section 1.1.2 that the GIWF was approved on 2<sup>nd</sup> October, 2009, and</i></p> <p><i>(b) In Section 1.1.3 that it was modified on 10th August, 2010.</i></p> <p><i>Accordingly, the extension granted by the NSW DPI in August 2013 is invalid.</i></p>	See item 11.1 above. A three year period from the August 2010 order was granted.
11.9	<p><i>Table 1.1 is an inaccurate summary of the Land and Environment Court Case No.10926 pursued by the Glen Innes Landscape Guardians.</i></p> <p><i>What other parts of this report are inaccurate?</i></p>	GIWP disputes this statement and the implications for the rest of the document.
11.10	<p><i>Micro sighting of turbines was not allowed in the original approval (viz: 2009 year).</i></p> <p><i>GIWP are claiming micro sighting is allowed under the Draft NSW Planning Guidelines: Wind Farms 2011 however the Wind Farm was not approved under these guidelines. Either the original approval conditions must be applied or GIWP "leave" the old approval conditions and apply and transfer their approval to the Draft NSW Planning Guidelines: Wind Farms 2011 "in their entirety" which GIWP are not doing. GIWP cannot "cherry pick" which of the draft guidelines they wish to apply/comply with and those they do not want to comply with – it is either all or none.</i></p>	<p>Micro-siting has always been allowed under the planning guidelines (both those used for the project approval, and the Draft Guidelines issued in December 2011). It is Industry Best Practice to site the turbines in the most effective, efficient and environmentally acceptable positions.</p> <p>A small degree of movement of turbines is considered acceptable to allow for slight variations during construction such as ground conditions, or adjustment to allow for easier installation.</p> <p>Any micro-siting undertaken would be consistent with the terms of the project approval, and would ensure no additional environmental impact.</p> <p>A recent condition imposed in the project approval for the Flyers Creek wind farm is</p>

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		<p>considered a suitable clarification of the micro-siting, and GIWP anticipates that a condition of this kind will be added as an additional requirement to the modification approval.</p> <p>See comments in item 11.3 above.</p>
11.11	<p><i>In Section 2.1 it is stated that one of GIWP principal functions is:</i></p> <p><i>“(d) be integrated in to the community in a way that is sensitive to and has regard to the concerns that may arise for the life of the project”.</i></p> <p><i>Clearly GIWP are not complying with this principal (d) outlined above; a local doctor and a deputy school principal have already left the immediate area (viz: within 2km of turbines) due to the effect of the GIWF.</i></p>	<p>See item 11.3 above as the basis for the use of the Draft Guidelines.</p> <p>GIWP cannot comment on reasons for people leaving an area, but it is unreasonable to assume that the proposed wind farm is the primary cause.</p>
11.12	<p><i>In 2.2.1 Aurecon acknowledge that the area of the GIWF is a “low wind site”.</i></p>	<p>“Low wind” is a term used in the wind industry to classify a wind regime on site. It is used as reasoning behind the selection of a relevant wind turbine for a project. The description has no relevance to this application.</p>
11.13	<p><i>There is a very substantial increase in the sweep area of the proposed new turbines and the dangers resulting from such.</i></p>	<p>There is an increase in swept area. We are unsure of what “dangers” are being referred to.</p>
11.14	<p><i>In Table 3.2 (page 14) the modified turbine locations are detailed but no summary is provided on the changed distances to all local residences. Why wasn’t such a summary included so that the effect can be assessed and a proper response provided.</i></p>	<p>Modification EA: Table 3 Appendix D, as referred does in fact show the change in distances of residences within 3km of the wind farm as a result of proposed modifications.</p>
11.15	<p><i>The proposed new turbines are significantly larger than the existing approved turbines:</i></p> <ul style="list-style-type: none"> <li>- <i>Hub height from 80m to 89m: a 9m/11% increase</i></li> <li>- <i>Max blade tip height from 130m to 150m: a 20m/15% increase.</i></li> <li>- <i>Rotor diameter from 100m to 122m: a 22m/22% increase.</i></li> <li>- <i>Rotor sweep area from 7857m<sup>2</sup> to 11690m<sup>2</sup>: a 49% increase.</i></li> <li>- <i>Footings : 18% more concrete                   : 13% larger diameter</i></li> </ul>	<p>Numbers reported agree with the modification. Proponent highlights that a larger increase in swept area doesn’t increase the visual impact by the same %. Focus should be on the tip height variation to 150m, a 15% change.</p>
11.16	<p><i>In Table 4.2 (page 24) Aurecon state:</i></p> <p><i>“Pastoral activities will be unaffected on neighbouring lands by the proposed modifications”.</i></p> <p><i>This clearly appears to be a false and misleading statement.</i></p>	<p>GIWP consider this as neither false nor misleading.</p> <p>Under the approval determination and as agreed by all parties, pastoral activities were not affected. This agreement was based on the approved position of the turbines which, other than in relation to limited micro-siting, has remained the same.</p>



	<b>Issue raised</b>		<b>GIWP Response</b>
<b>11.17</b>	<b>Non Compliance with Draft NSW Planning Guidelines: Wind Farms 2011:</b>		
	<i>Issues and potential issues for consideration</i>	<i>Comment by LG / G W Putland</i>	
	<i>(a) Consult with all neighbours with dwellings within 2km of a proposed wind turbine. Identify the neighbours issues and potential approaches to mitigate any adverse impacts</i>	<b>Comment</b> – Although consultation is required, a decision was apparently made by GIWP not to consult.	Consultation did occur. See section 5.1.2 and appendix I of the modification EA.
	<i>Consider seeking agreement with neighbours with dwellings within 2km</i>	<i>The NSW DPI consulting requirement seems to have been ignored. Don't you consult "BEFORE" lodging the modification request.</i>	See comment above. Consultation did take place.
	<i>(b) Consider potential impacts on birds and bats, particularly migratory species and outline the proposed monitoring and mitigation strategy.</i>	<i>No change in potential impacts is foreseen.</i> <b>Comment</b> – This statement is not correct – the sweep area has increased by 48%.	See item 11.27 below.
	<i>(c) Outline current agricultural aerial uses on neighbouring properties.</i>	<i>The proposed modifications will have no agricultural aviation effect on non-wind farmer neighbouring properties.</i> <b>Comment</b> - This is clearly incorrect. Neighbouring properties suffer the same negative impact as wind farm properties.	After consultation with the aerial spraying company it was shown that the perimeters of adjoining properties could be safely accessed by aircraft. In the event that extra work or cost is involved, the process for consideration is covered in condition 2.53 of the approval.
	<i>(d) Consider whether the wind farm use is consistent with relevant local or regional land use planning strategies.</i>	<i>The wind farm has been approved and was consistent with relevant local planning requirements at the time of submission. Glen Innes Severn Council has since adopted a new LEP and a DCP for windfarms.</i> <b>Comment:</b> The statement by Aurecon that the Glen Innes Severn Councils DCP for Wind Farms was issued after the	See item 11.5 above. It is worth noting that Glen Innes Severn Council has not made a submission to the modification. In fact consultation with Council has been ongoing and of a detailed nature regarding transport issues etc.

	<b>Issue raised</b>		<b>GIWP Response</b>
		<p><i>Wind Farm approval is incorrect. The DCP was issued prior to the Wind Farm approval and the DCP is not complied with.</i></p>	<p>A number of studies in Australia and overseas have shown that wind farms do not generally have any negative impact on the value of surrounding land.</p> <p>The main finding in a report prepared for the NSW Valuer General in August 2009 was that “wind farms do not appear to have negatively affected property values in most cases. Forty (40) of the 45 sales investigated did not show any reductions in value. Five (5) properties were found to have lower than expected sale prices (based on statistical analysis). While these small number of price reductions correlate with the construction of a wind farm further work is needed to confirm the extent to which these were due to the wind farm or if other factors may have been involved.”</p> <p>The Study’s results also suggest that “...no reductions in sale price were evident for rural properties or residential properties located in nearby townships with views of the wind farm.”</p>
	<p><i>Consider any potential impacts upon property values consistent with the Draft guidelines, including properties Within 2km.</i></p>	<p><i>The proposed modifications would not be expected to have any additional impact upon property values due to their minimal environment impacts compared to the approved project.</i></p> <p><b>Comment :</b> <i>Possibly correct ,however the original approval has definitely caused negative property price impact.</i></p>	
	<p><i>(e) Outline whether the proposal is consistent with any relevant provisions of the relevant Council’s Development Control Plan and list any Variations.</i></p>	<p><i>This is an approved project and is generally consistent with the local Council’s wind farms DCP.</i></p> <p><b>Comment:</b> <i>The approval is not consistent with the local Councils DCP in a crucial area – the 2 km setback.</i></p>	
11.18	<p><i>Non compliance with the Glen Innes Severn Council Specific DCP Wind Power Generation Guidelines. The Council has implemented a Development Control Plan for Wind Farm Developments so developers are aware of the Councils’ and the local Community’s expectations and compliance with any wind farm development.</i></p>		

	<b>Issue raised</b>		<b>GIWP Response</b>
	<p><i>DCP Planning and environmental control Guideline</i></p> <p><i>Where visible from a non-related dwelling or immediate surrounds, the development shall not be located within 2 km of any dwelling not associated with the Wind Farm development.</i></p> <p><i>Turbine locations shall be located sensitive to non-related dwellings surrounding the development. Note that due to the height of the turbines, screening is not the preferred choice of dealing with visual impact. The developer's priority should be endeavouring to position the turbines in locations with low visual impact to nearby properties, especially existing dwellings and lots provided for dwellings.</i></p>	<p><i>LG Commentary</i></p> <p><i>The proposed modifications do not alter the approved turbine locations. Minor adjustments to the layout will occur within micro-siting limits of 100m. Comment: the GIWF does not comply with the 2 km setback provision.</i></p> <p><i>Screenings is the only mitigation offered by GIWP. Comment: The GIWF does not comply with the Council's Guidelines.</i></p>	<p>See item 11.5 above.</p> <p>Screening by mutual agreement has been stipulated in the current conditions of consent clauses 2.1 and 2.2. The current conditions were also based on knowledge of the Council guidelines. Compliance with our current conditions is the path that will be followed.</p>
11.19	<p><i>The NSW Wind Farm guidelines require that Wind Farm proponents must undertake a comprehensive and genuine community consultation and engagement process. The applicant must demonstrate in the environmental assessment that effective consultation has occurred prior to the lodgement of the application and that issues raised as a result have been addressed in the Assessment. Without this being adequately demonstrated, the application will not be accepted.</i></p> <p><i>As noted in paragraph 11.17, GIWP acknowledge that they have not consulted the local community in relation to this modification request. Accordingly, the Department has no option but to refuse the modification request.</i></p> <p><i>Although Aurecon in Section 5.1 state the Guidelines have been considered in relation to the proposed modification, to provide a complete explanation what Aurecon should have said is that the Guidelines were considered and then ignored.</i></p>		<p>Consultation has taken place regarding this modification. See item 11.17 above.</p>

	<b>Issue raised</b>	<b>GIWP Response</b>
11.20	<p><i>In Para 5.1.2 Aurecon state a information day was held on 3<sup>rd</sup> December, 2013.</i></p> <p><i>This statement is very misleading – as the advertisement states only 2 hours were available viz: 3pm to 5pm. Also in Para 5.1.2 Aurecon comment that several people acknowledged acceptance of the modifications and that most attendees indicated support for the project. As no details are provided as to who attended the information session – maybe they were wind farm landowners – this statement must be ignored.</i></p> <p><i>As you are aware, there is substantial local opposition to turbines which are within 2 km of non wind farmer residences, being turbines numbered 15,16B, 16C, 17, 19, 21B, 22B and 20B – opposition to only 8 turbines out 25 turbines for the GIWF, and opposition to only 8 turbines out of 313 turbines in the local area (2.5% of turbines) as you can see, the opposition is not to Wind Power Electricity Generation generally, but to turbines located within 2 km of non windfarmer residences.</i></p> <p><i>It is clearly a requirement of the NSW Guidelines for Wind Farms that turbines are not to be located within 2 km of non windfarmer residences.</i></p>	<p>The information day was scheduled at that time to assist with those residents who worked and needed to come later. Several people did attend and voiced their support for the project as well as residents who did not. See item 11.17 above.</p> <p>It must be stated once again that the modifications have been made and assessed using the Draft Guidelines as far as they are able to be used on a project that already has project approval (see item 11.3). The 2km setback comment has no relevance here and is not subject of the current determination.</p>
11.21	<p><i>The modification requested by GIWP does not comply with the Draft NSW Planning Guidelines: Wind Farms 2011 in relation to Landscape and Visual Amenity. The Guidelines state:</i></p> <p><i>If a turbine is proposed within 2 km of a neighbours house, the landowners consent must be obtained or a Site Compatibility Certificate obtained from the relevant Joint Regional Planning Panel focusing on Visual Amenity issues. There is no compliance by GIWP with this requirement.</i></p>	See comments in item 11.3 and item 11.18 above.
11.22	<p><i>In Para 5.2.2 Aurecon state:</i></p> <p><i>“due to their size and prominent position, the wind turbines will be difficult to screen”.</i></p> <p><i>This is confirmation from Aurecon/GIWP about the adverse visual effect of the proposed turbines.</i></p> <p><i>The unacceptable visual mitigation measure already proposed by GIWP, viz: tree planting, would have to further increase in height.</i></p>	A number of mitigation measures are stated in the approval under clause 5.2.2. These are also as determined in the Appeal Court determination in clauses 2.1 and 2.3. The proponent confirms its commitment to liaising with the residential dweller to mitigate the visual impact as best we can.
11.23	<p><i>The report by Aurecon states that the Shadow Flicker caused by the proposed new turbines will exceed by 30 hours, the acceptable limit, at 2 non-associated wind farm residences - Mayvona and Ilparran B. However there is also increased shadow flicker at other residences.</i></p>	Mitigation measures are in place with Ilparran property owner and currently Mayvona is unoccupied (derelict). The other two residences that show increased flicker are still below the 30 hours. Mitigation measures are available as stated in the EA approval document.

	<b>Issue raised</b>	<b>GIWP Response</b>
11.24	<p><i>Aurecon acknowledge in Para 5.2.4 of their report that one of the main reasons for the opposition to the GIWF by the local community and the non wind farm neighbours was the significant adverse visual impact caused by the turbines.</i></p> <p><i>The increased height and sweep area of the proposed turbines increases further the local community and non wind farm neighbours concern and opposition to the Wind Farm as the visual impact is increased significantly.</i></p> <p><i>We do not agree with Aurecon /GIWP conclusion that the proposed changes to the wind turbines would result in little change to the overall visual impact of the Wind Farm.</i></p>	<p>The modification EA, Appendix D goes into great detail about the visual effects and mitigation methods.</p> <p>As described in the original EA, the wind turbines would be expected to have minor impacts on residents in the immediate vicinity of the wind farm if left unmitigated. The increase in the maximum blade tip height by 20m would, on average, occupy an additional 0.60° of the cumulative vertical field of view for these residences.</p> <p>Within a given landscape, the visual impact would normally decrease, where the distance between a viewer and the wind farm development increases. Beyond about 3 km, there is only a small decrease in the vertical view angle as distance increases. The increase in turbine dimensions would become indiscernible at these distances. The increase in vertical view angles could be mitigated with vegetative screening and landscape treatments as already recommended by the existing Conditions of Approval.</p>
11.25	<p><i>The proposed new turbines will cause increased noise levels at 2 non wind farmer properties who are within 2 km on turbines; Highfields and Mayvona, and also above the acceptable noise criteria guideline. This further supports a 2 km setback policy enforcement. Tables 3, 9, 11, 15 and 17 in Appendix E Noise Assessment are incorrect, as they do not include Furracabad Station – what is the unfavourable noise impact on Furracabad Station.</i></p> <p><i>All calculations and tables need to be updated for Furracabad Station so that a complete assessment is possible.</i></p> <p><i>When compared against the approved turbines, the proposed turbines have caused increased noise levels at the following non-wind farmer properties:</i></p> <ul style="list-style-type: none"> <li>- Rivoli</li> <li>- Wattle Vale</li> <li>- Girrahween</li> <li>- Glengarry</li> <li>- Mayvona</li> <li>- Lombardy</li> <li>- Highfields</li> <li>- Nullagai</li> <li>- Klossie</li> <li>- Cherry Tree (Eungai)</li> <li>- Ilparan A</li> </ul> <p><i>This is unacceptable.</i></p> <p><i>There may also be exceedances at Furracabad Station also – no calculations have been done, but must be done.</i></p>	<p>GIWP has proposed an operational programme which mitigates noise variations, and as per Appendix 5 table 18, at no point does the proposed operational strategy breach the required noise limits at any property less than 3km from the wind farm.</p> <p>Furracabad station is located to the south east of the project, at a distance of 3km from turbine 19, and was not considered due to distance from the project.</p> <p>The property at Klossie, in a similar location to Furracabad station, but closer (just over 2km from turbine 19) has a noise prediction of 27dBA. Figure A3 of the noise assessment (App 5) shows Furracabad station to be in the next noise contour out from Klossie, expecting a noise level between 20 and 25 dBA.</p> <p>GIWP remind the NSW DPI that noise levels have reduced at some properties for some wind speed ranges, and that at no point are recommended noise levels exceeded.</p>

	<b>Issue raised</b>	<b>GIWP Response</b>
11.26	<p><i>In 2011 the Federal Government conducted an inquiry into The Social and Economic Impact of Rural Wind Farms. One of the recommendations from this enquiry was:</i></p> <p><i>Further consideration be given to the development of policy and separation criteria between residences and Wind Farm facilities.</i></p> <p><i>As you are aware, it is now well accepted that the minimum distances between Wind Farms and Residences should be at least 2 km- this principal is not being applied in relation to the GIWF by GIWP.</i></p>	See item 11.3 above.
11.27	<p><i>Clearly the larger sweep area of the proposed turbines (increased by 52%) will have a commensurate negative impact increase on the local bird and bat population viz: a 50% increase in dead birds and bats. This is unacceptable.</i></p>	<p>The impact of blade-strike on birds at the Glen Innes Wind Farm will be negligible; the project area is a dry upland location a considerable distance from any large water bodies and no turbines are in gaps between mountain ranges.</p> <p>Monitoring of bat species at the Glen Innes Wind Farm shows that areas with open habitat, where turbines will be located, were not utilised by the threatened species present in the area. Studies of bat flight behaviour in the vicinity of turbines showed that only a small percentage is involved in collisions, some exhibit avoidance behaviour and the bulk appear to stay clear of the turbines indicating an awareness of the turbines. These observations as well as a 32% slower rotor rotation speed and corresponding 17% slower tip speed would not increase avifauna mortality. The current project approval clause 3.1 clearly states our obligations regarding this issue.</p>
11.28	<p><i>Aerial Agricultural Operators</i></p> <p><i>In Para 5.6.1 Aurecon/GIWP conclude that the proposed new turbines “would not affect neighbouring properties”. It is inconceivable as to how Aurecon can come to this conclusion – turbines near neighbouring property boundaries (which exist) will affect equally the wind farmer property and the non wind farmer property.</i></p>	See item 11.16 above.
11.29	<p><i>In Para 5.9.2 Aurecon state that residential rural activities will not be significantly affected by the operation of the wind farm. This is incorrect. Rural residential developments which generate higher rates for the local council, compared with pastoral property, are very likely to cease due to the negative visual, noise, health and economic impacts of the Wind Farm.</i></p>	<p>This comment is speculative in nature and we are not in a position to comment on this. The pastoral and residential activities will continue and will not be significantly affected by the operation of the wind farm with taller turbines. The installation of taller turbines will not limit the future use of the land for grazing. The proposed modifications are considered substantially the same development and therefore no additional impacts were identified.</p>

	<b>Issue raised</b>	<b>GIWP Response</b>
11.30	<i>The Development Approval granted on 2nd October 2009 does not comply with the requirements of the December 2011 NSW Planning Guidelines Windfarms (Draft). In particular, the following wind turbines which are within 2 km of residences who have not consented to them should have been removed or relocated so that they are not within 2 km of these residences – Turbine numbers 15, 16B, 16C, 17, 19, 21B, 22B AND 20B.</i>	See items 11.3 and 11.18 above.
11.31	<i>The Wind Farm does not have the support of the Glen Innes Severn Council as the Development Approval of 2nd October 2009 did not comply with the Glen Innes Severn Council's DCP for Windfarms</i>	GIWP has had discussions with the Council who support the wind farm and its modifications. They have not submitted an objection to the modification proposal.
11.32	<i>The Wind Farm does not have the support of non-windfarm residences who reside with 2 km of the Wind Farm.</i>	This is known to GIWP and acknowledged.
11.33	<i>The Wind Farm does not have strong community support as attested by the petition of over 600 signatures objecting to the windfarm tabled in the NSW Parliament.</i>	The Glen Innes community has some 12,000 residents and whilst we acknowledge the 600 signatures to Government, the vast majority do not appear to object.
11.34	<i>GIWP have previously stated that they removed three turbines as a show of goodwill – this is incorrect, only 1 turbine has been removed by GIWP as a goodwill gesture. Only 2 turbines have been removed - 1 turbine by the Department of Planning as an approval condition. GIWP tried to have this turbine reinstated by was unsuccessful, and one turbine as agreed between GIWP and Glen Innes Landscape Gardens, due to concerns about noise and visual amenity issues.</i>	Landscape Guardians and GIWP agreed as part of the appeal process to remove turbine 10 and relocate turbines 22B and C further to the West.  Turbine 18 was taken out as a precautionary measure by the Land & Environment Court decision. GIWP accepted this decision and did not try to have it reinstated.
11.35	<i>Local Council Planning Controls This project is not in accordance with the Glen Innes Severn Council's DCP for Windfarms</i>	
11.36	<i>The windfarm as approved does not comply with the Council's DCP for Wind Farms in the Glen Innes area – (viz: Windfarm turbines cannot be within 2km of houses), there is still very strong opposition from residents who reside within 2 km of the wind turbines and strong community opposition as attested by the petition of over 600 signatures objecting to the Wind Farm tabled in the NSW parliament. The project clearly does not have the full support of the local community and as you are aware the approval for this project was challenged in the Land and Environment Court.</i>	See items 11.5, 11.30 and 11.31 above.  GIWP is aware of the challenge in the Land and Environment Court which forms the basis of the current project development.
11.37	<i>Appendix F – Aviation Assessment Table 2 is incorrect as it does not include the airstrip on Furracabad Station.</i>	This is an oversight, and the report has been appropriately updated to include the airstrip. However, there is no additional risk that results from its inclusion.  This airstrip is like other airstrips in the area in that it is used for aerial spraying purposes, and the wind farm does not affect its purpose. The airstrip has no other licenced function.

	<b>Additional issues Raised by:</b>	<b>GIWP Comment</b>
<b>A</b>	<b>Ashley Peake – Submission 1 (94334)</b>	
A.1	<p>Despite the requirement from NSW DPI that GIWF consult and perform additional photomontages GIWF made no real attempt to contact us (the owners of Cherry Tree) despite having our email address and phone number and could have obtained our address from NSW DPI. Rather their lame note on page 39 "No response was obtained from the owners of Cherry Tree owners(sic), who now live in Cairns."</p> <p>So GIWF/Aurecon were aware that we live in Cairns but didn't bother to ensure that we were contacted. What kind of consultation is that and why didn't NSW DPI react to this statement (they have our address)? The wind farm may have driven us away but our property is still affected by this proposal.</p>	<p>Photomontages were developed for Cherry Tree and contained in Appendix D 3.3 of the modification EA.</p> <p>Contact was made by letter, email sent and a message was left on the mobile number that GIWP has. No response was made.</p>
A.2	We want photomontages done for Cherry Tree and still want the promised visual mitigation performed. The proposed new turbines are 9 metres taller and bigger and will obviously affect the visual amenity more.	Photomontage has been developed. GIWP remains committed to visual mitigation as per the original approval, and will liaise with all relevant property owners to develop mitigation as per the approval order.
A.3	It's amazing how the proponents now admit that the old turbines are noisy after previously denying it. Now we are told to put up with bigger turbines because at least they are quieter!	No comment has been made regarding the description of wind turbines as "noisy". GIWP has proposed larger, more efficient wind turbines, and has demonstrated that there is no breach of any noise conditions by the change in wind turbine type. As a result of the new turbines under the modification request, these turbines have a lower noise output which is a result of lower source noise from a smaller generator. This is a benefit.
A.4	Regarding the health effects-there may well be no yet confirmed direct relationship between wind farms and ill-health but there certainly is an indirect relationship. This relationship concerns the powerlessness of non-windfarmer neighbours whose lives are changed forever while they have no control, are treated like they don't matter (as above) and obtain arguably no benefit from the industrialisation of their surrounds. Powerlessness is a known contributor to ill-health.	<p>A number of health studies by independent bodies have been made public recently. The most recent of which by the NHMRC and AMA confirmed that there are no direct negative health impacts associated with wind farms.</p> <p>GIWP has consulted with the local community and has provided a substantial community fund, a proportion of which must be spent within 5km of the wind farm. This is aimed at benefiting the local community and those neighbours located near to the project.</p>



<b>B</b>	<b>Ashley Peake – Submission 2 (94818)</b>	
B.1	<p>I have an extension to provide further information relevant to my previous submission which I still want considered.</p> <p>As previously related we did not receive the notification letter until the 24/3/14 which was after the start of the public exhibition and GIWF/Aurecon made no real attempt to contact us before this.</p> <p>This makes a mockery of any notion of consultation.</p>	<p>Contact was made by letter, email sent and a message was left on the mobile number that GIWP has. No response was made.</p>
B.2	<p>Given a tad more time to investigate the 500 +pages of Aurecon report I can see that that they have simply doctored their past efforts at photomontages but even these demonstrate that the visual amenity effect will be even more overpowering than previously.</p> <p>The turbines are already on a ridge and their increased height will confirm their dominance of the landscape and our house with no realistic mitigation remedy available.</p>	<p>NSWDPI determined the consultation period.</p> <p>Photomontages were based on original photography in order to provide a direct comparison between the original and proposed wind turbine types and their visual impact.</p>
B.3	<p>I am mistaken also in that the maximum tip height is actually increased by 20 m (not 9m) but Aurecon/GIWF do not appear to think that this is a significant change!</p>	<p>20m change in height is 15% of the overall structure. The fixed structure (tower) has changed by 9m (11%). This is a minor change to the overall project.</p>
B.4	<p>Already the lives of non-windfarmers in the Furracabad Valley have been irrevocably changed and the proponents and their consultants appear to suggest that we should just wear it without regard or dare I say ,compensation.</p>	
B.5	<p>We have to put up with uncertainty, a potentially unsaleable property of greatly reduced value as well as noise and loss of visual amenity if we or anyone else ever chooses to live there.</p>	<p>Commentary on property prices near to wind farms is provided in section 11.17.</p>
B.6	<p>As previously stated I believe that the health effects of wind farms are mostly related to the powerlessness of wind farm neighbours who seem to be treated as if they do not matter and this again appears to hold true.</p>	<p>See comment in A.4 above.</p> <p>GIWP has consulted with the community, and provided a community fund to pass on some of the project benefits. Again, no health effects have been proven with regard to wind farms and their communities.</p>
B.7	<p>After much investigation 2 Km setbacks have been recommended but even now GIWP can apply for a modification to their approval for much bigger turbines without any consideration of the 2Km setback.</p> <p>The 2Km setback should be mandatory. We are not opposed to alternative power generation but simply want neighbours' interests adequately considered. This is a big country.</p>	

B.8	This is a new application for modification and it must be considered in the light of community opinion and the community representative's recommendations.	
C	<b>Daniel McAlary (94960)</b>	
C.1	<i>I object against alteration of the approval first on the grounds that the changes are so great that a completely new application should be lodged and secondly on the grounds that the consultation has been inadequate.</i>	Modification is only on the basis of wind turbine height, and is considered minor. See comment in 11.2 above.  Consultation has been undertaken as per comments above.
C.2	<i>In respect of both counts I say that I have recently read agree with and endorse the recent submission by the Glen Innes Landscape Guardians.</i>	Acknowledged. Responses to Landscape Guardians submissions are above.
C.3	<i>I do have additional comments which I am in the course of compiling, however given the late notice to me of the modification request by the proponent it will take some time to complete my submission together. I note that there are issues of the tort of nuisance, bird strike, limitation of agricultural, farm and residential development, social cohesiveness and crime, which arise from the proposed altered development. I shall address these issues in my second submission.</i>	Acknowledged. GIWP will respond to all submissions and is committed to continued public consultation.  That said, the tort of nuisance is a legal term which GIWP believes not to be applicable here. It was used in the appeal process and shown to not be proven.  Regarding crime, GIWP cannot comment on this statement since it is not aware of any correlation between increase in crime and wind farms.
D	<b>Brian &amp; Nerolie Winter (94816)</b>	
D.1	<i>I am writing to oppose the modification request for the Glen Innes Wind Farm to install larger wind towers in our valley. The original towers will be opposing enough on our beautiful valley, so to go to the new height will be extremely opposing on our landscape. Where will it all stop?</i>	GIWP believes the issue of visual impact is addressed in main issues comments above.
	<b>Additional Comments from:</b>	
E	<b>NSW Trade &amp; Investment - Resources &amp; Energy (94876)</b>	Fully supportive.
F	<b>NSW Roads and Maritime Services (94647)</b>	
F.1	<i>Tamworth road issues regarding the need for road closures etc</i>	In light of the comments from the NSW RMS, GIWP have investigated the transport route options and can confirm that the transportation route can be entirely from Brisbane, thus avoiding access through Tamworth. GIWP will work closely with the RMS and transportation contractors to ensure that, prior to the construction phase, and delivery of products, safe and considered transit from port to site is undertaken.  All permits, police support, road closures and provision for damage rectification will be arranged with the relevant authorities prior to transportation.

G	<b>NSW Office of Environment &amp; Heritage (94830)</b>	No further comments provided.
H	<b>NSW Rural Fire Service (94883)</b>	
H.1	<i>Consent conditions 2.36, 2.37, 2.38 remain unchanged</i>	Proponent confirms that these conditions will remain unchanged.
I	<b>NSW Environment Protection Authority (94651)</b>	
I.1	<i>EPL required, suitable sediment &amp; erosion control in accordance with the Blue Book, gravel volume extract limits not to be exceeded</i>	Proponent can confirm compliance with these issues as well as any other environmental issues as stated in the conditions of consent dated 2/9/10.
J	<b>NSW Department of Primary Industries (94855 and 94645)</b>	
J.1	<i>Proximity of turbines to untenured crown road</i>	Proponent will liaise with the Dept of Primary Industries and NSW DPI as to the final siting of the turbines with respect to the untenured crown road prior to final micro-siting and construction.  GIWP will ensure, through micro-siting and final design work, that turbines will also not encroach upon any untenured council land.
K	<b>NSW Environmental Protection Agency – Noise division (unreferenced)</b>	
	<p><i>The ENA has assessed the results of two sets of model inputs:</i></p> <ul style="list-style-type: none"> <li><i>the first with the same model inputs as the original assessment, and</i></li> <li><i>the second with a more conservative set of model inputs developed in the UK, in an effort to standardise wind farm modelling and assessment.</i></li> </ul> <p><i>Use of the second model results in noise levels increasing by up to 4 dB due to reduced ground absorption and increased reflection effects from the ground.</i></p> <p><i>The conservative second model predicts exceedances of the criteria:</i></p> <ul style="list-style-type: none"> <li><i>at 'Highfields' of up to 1 dB overall, or 2 dB during the night; and</i></li> <li><i>at 'Mayvona' of up to 3 dB overall, or 1 dB during the day and 3 dB during the night.</i></li> </ul> <p><i>The ENA states that due to the nature of the ISO9613 noise model used, which assumes worst-case source to receiver wind directions for each turbine to each receiver, the predicted worst case levels leading to the exceedances above would be highly unlikely to occur in practice. Additionally, the two receivers 'Highfields' and 'Mayvona', which are E or SE of the wind turbines, are upwind from the predominantly occurring E or SSE winds at the site.</i></p> <p><i>The proponent proposes to address these exceedances by reducing the operating intensity of selected wind turbines, and hence their individual noise outputs, via an automated system in response</i></p>	<p>GIWP chose to demonstrate the variation in noise levels through differing assessment procedures. Even using the more conservative approach, GIWP does not breach the EPA guidelines of background noise plus 5dB(A).</p> <p>As requested by NSW DPI, GIWP has provided an additional memorandum on noise levels, comparing the methodologies from 2010 and 2013 at the key wind speeds of 8m/s and 9m/s. The clear conclusion of final modelling and assessment, is that the EPA noise conditions from the 2010 approval can be met with the newer, larger wind turbines that are now under consideration.</p> <p>The memorandum considers the ECO 122 2.7MW wind turbine, and the ECO 122 3.0MW wind turbine (the most recent variant of the same model from Alstom). The modelling for the 3.0MW turbine is preliminary at this stage, demonstrating only that there is a minor change from the 2.7MW variant. Both the 2.7MW and the 3.0MW turbines are able to be operated in a number of reduced noise modes if required in order to meet the EPA noise limits set in the 2010 approval.</p>

<p><i>to continuously monitored meteorological conditions at the site. This is broadly termed a 'sector management' approach.</i></p> <p><i>The EPA has previously considered, particularly for new wind farm proposals, that a sector management approach should be used only as a safeguard in case of post-commissioning non-compliances and compliance with the criteria should be demonstrated without recourse to it. Ultimately, however, the proponent needs to demonstrate compliance with the noise criteria established for the project. Alternatively, the proponent may seek to negotiate an agreement with affected receivers.</i></p> <p><i>The EPA recommends that DoPI condition any approval, if issued, that requires the proponent to:</i></p> <ul style="list-style-type: none"> <li><i>not exceed the noise criteria (i.e. the criteria should be the noise limits).</i></li> <li><i>identify and retain records of the wind speed and direction conditions under which sector management needs to be invoked to ensure noise limits are complied with; and,</i></li> <li><i>generate and retain, and make available to EPA upon request, operational records of the premises that demonstrate that sector management has been implemented when necessary to comply with noise limits.</i></li> </ul>	<p>The EPA recommendation is that the noise criteria imposed in the modification approval should be the noise limits, i.e. those imposed by the 2010 project approval. This modification application does not seek any alteration to the approved EPA noise limits.</p> <p>GIWP is committed to meeting the 2010 project approval noise conditions, and will provide, in advance of construction, a final noise study to the EPA and to NSW DPI in order to verify that the final selected wind turbine for the project, is predicted to meet the noise conditions in the 2010 project approval, and will also undertake post construction monitoring in order to verify that the operation profile of the wind turbines meets the same conditions.</p> <p>The current project approval requires GIWP to undertake a Noise Compliance report within 6 months of commissioning, to assess the performance of the project against the operational noise criteria given as part of the project approval.</p> <p>GIWP proposes to operate under standard wind turbine operation modes unless noise breaches are identified. In cases where breaches are identified, GIWP will operate on a sector management approach, detailed in the revised Noise Assessment which will be prepared for the final turbine model and layout, and submitted to the Director-General prior to commissioning.</p> <p>GIWP will store all operational records as part of standard operating procedures.</p>
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