APPENDIX E:
ADDITIONAL INFORMATION

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15 June, 2016

Nicole Brewer
NSW Department of Planning & Environment
via email: nicole.brewer@planning.nsw.gov.au

Our Reference: *0178462_RESPONSE TO FURTHER INFORMATION REQUEST_APRIL2016.DOCX*

Attention: **Nicole Brewer**

Dear Nicole,

RE: BIALA WIND FARM - REQUEST FOR FURTHER INFORMATION

I refer to the Department of Planning & Environment (DPE) request to Newtricity, as the Proponent of the Biala Wind Farm Project (SSD 13_6039), seeking further information relating to the environmental assessment of the Project as outlined in your email of 29 March 2016 and discussed at our meeting of 8 April 2016, and subsequent email requests of 31 May, and 2 and 10 June 2016 (copies attached in *Annex A*). Outlined below is our response to your queries and additional information as requested.

1. TRAFFIC AND TRANSPORT ISSUES

1.1 COMMITMENT TO ROAD UPGRADES

The Response to Submissions (RtS) Report submitted for the Project (ERM Ref: *0178462R01 Response to Submissions, February 2016*) incorporated correspondence from Upper Lachlan Shire Council (ULSC) outlining ULSC's requirements for road upgrade works associated with the identified Restricted Access Vehicle (RAV) route to the Project site.

DPE noted that there was no express commitment in the RtS Report that these road upgrade works would be undertaken, and requested confirmation of the proposed timing for completion of the proposed works.

As outlined in the RtS, the road upgrade requirements were discussed and agreed during a joint site inspection by representatives of ULCS, ERM, GTA (traffic consultants) and the Proponent in December 2015 during preparation of the RtS. The Proponent commits to undertaking the drainage, pavement rehabilitation works, and intersections treatments as outlined in Items I, II, and III respectively in ULSC correspondence attached as Annex C to the RtS Report.

Intersection works associated with the proposed site access points (as illustrated in Figure 4.1 of the RtS Report and discussed in Item III (f) of Annex C) would be undertaken prior to commencement of construction works onsite and in accordance with ULSC requirements.

All other road upgrade works associated with the proposed RAV route to the Project site as outlined in Items I, II and III (a) to III (e) of Annex C of the RtS Report, would be completed prior to movement of any RAVs via the proposed route.

1.2 OTHER TRAFFIC AND TRANSPORT ISSUES

DPE's email of 31 May 2016 identified the following additional traffic related issues requiring clarification:

1) *Clarification of the existing traffic figures (daily and peak) along the key local roads. The traffic volume counts provided in Table 2.1 of the GTA Transport Impact Assessment (Annex K of the EIS) were taken during a short period of time (15 minutes) in the middle of the day. Please provide an analysis of the methodology used to extrapolate these figures for the peak hour and daily traffic estimates, and any additional local traffic data to confirm the accuracy of these traffic counts.*

2) *Provision of the percentage increase in predicted traffic volumes associated with the Project when compared to the existing volume of traffic along key local roads (including a spilt between light and heavy vehicles); and*

3) *Clarification of the length of Kialla Road proposed to be reconstructed as part of the project. Note the Department has recently received correspondence from Council indicating that it was agreed that Newtricity would reconstruct 7.7 km of Kialla Road (not the 2.5 km quoted in the Response to Submission Report).*

In regards to Item 1 above, ULSC previously raised similar issues in its submission following exhibition of the EIS, which incorporated comments regarding the baseline traffic values used in consideration of the proposed intersection designs for the Project (refer Council's submission comment on Section 4.5.3 of the Transport Impact Assessment). As a result, the issue of baseline traffic data was further discussed with Council representatives, during which Council outlined that it considered that the baseline traffic volumes presented in the EIS were an underestimate. Council subsequently provided the most recent traffic count data for consideration by the assessment team to determine if the traffic data utilised in the assessment was appropriate.

The specialist traffic consultant, GTA, undertook a review of the data provided by Council. The data included speed and volume data on Grabben Gullen Road for a 26 day period between 7 November and 3 December 2013. The data indicated that 12,612 vehicles passed through the counter for the period – which equates to 485 vehicles per day. Further, extrapolation of the data indicated that approximately 9% of traffic occurred during the PM peak hour (the peak of the day) – equating to 43 vehicles per hour. The GTA assessment contained within the EIS had assumed a baseline of 50 vehicles per hour on Grabben Gullen Road, which was therefore considered appropriate in light of this additional traffic data; a position that was accepted by Council at the time.

The data contained in Table 2.1 of the Transport Impact Assessment (GTA, 2015) is reproduced below.

Table 2.1: Traffic Volume Estimates

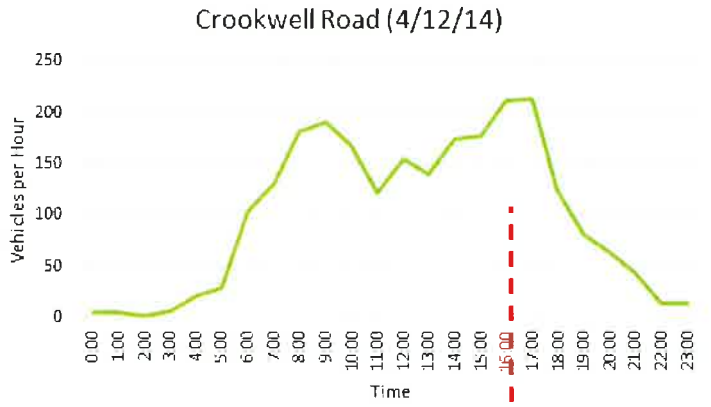
Location	Time of Sample Count	Traffic Volumes Counted	Estimated Daily Traffic Volume Forecast [1]
Range Road (east of Grabben Gullen Road)	12:15 – 12:30pm Thursday 4 December 2014	3	Up to 500vpd
Grabben Gullen Road (at Range Road)	12:15 – 12:30pm Thursday 4 December 2014	8	Up to 500vpd
Kialla Road (north of Range Road)	11:45am – 12:00pm Thursday 4 December 2014	6	Up to 500vpd
Range Road (east of Kialla Road)	11:45am – 12:00pm Thursday 4 December 2014	7	Up to 500vpd
Crookwell-Goulburn Road (at Sooley Bridge)	-	-	2,000vpd [2]

[1] Adopting typical peak to daily ratios and based on observations on route.
[2] Based on RMS 2014 traffic data.

In order to extrapolate the sample traffic volume counts to daily figures, reference was made to the RMS traffic volume counts for Crookwell Road located 1.6 km north of Marble Hill Road. (refer: http://www.rms.nsw.gov.au/about/corporate-publications/statistics/traffic-volumes/aadt-map/index.html#/?z=6).

The daily counts for Crookwell Road for the day of the GTA surveys (4/12/14) are provided below.

Figure 1 Daily Traffic Count, Crookwell Road 4/12/14



The surveys of Crookwell Road indicated a peak hour traffic volume of 214 vph or 9% of the overall daily traffic volume of 2,387 vpd. The peak hour proportion of 9% is consistent with that identified for Grabben-Gullen Road (2013 Council counts). The surveys for Crookwell Road indicated a lunchtime (noon to 1:00pm) traffic volume of 156 vph or 6.5% of the overall traffic volume data.

This proportion (6.5%) was then applied to the sample counts collected for the surrounding roads to determine the estimated daily traffic volumes (refer *Table 1* below).

Table 1 Estimated Daily Traffic Volumes

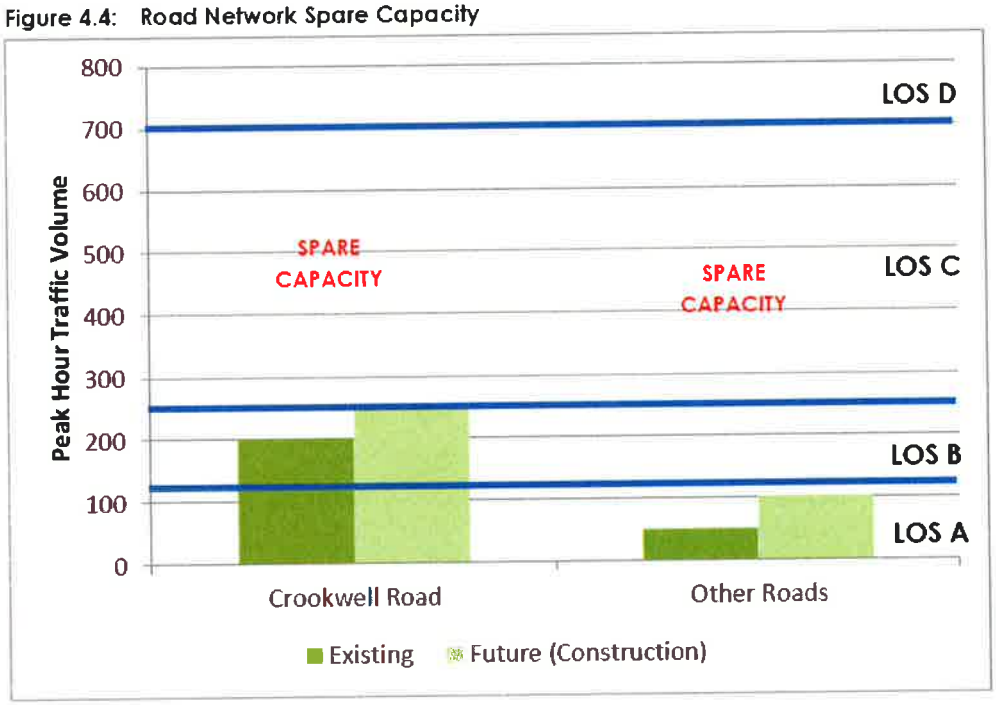
Location	15 minute count	Hourly Count (15 min x 4)	Lunchtime Peak to Daily Proportion	Estimated Daily Traffic Volume
Range Road (east of Grabben Gullen Rd)	3	12	6.5%	185vpd
Grabben Gullen Road (at Range Rd)	8	32		492vpd
Kialla Road (north of Range Rd)	6	24		369vpd
Range Road (east of Kialla Rd)	7	28		431vpd

In order to present a conservative assessment (and noting the limited sample size) a traffic volume of 500 vpd was adopted for each of the roads.

In regards to Item 2 above, Figure 4.4 of the Transport Impact Assessment (GTA, 2015) is reproduced below, which illustrates the estimated increase in traffic

volumes associated with construction of the Project compared to existing volumes; and highlights the significant spare capacity within the surrounding road network.

Figure 4.4: Road Network Spare Capacity



A breakdown of the estimated percentage increases in traffic volumes (including split between heavy and light vehicles) for the existing and future (construction) daily traffic volumes for the surrounding roads is presented below. The assessment assumes a worst case, with all traffic assumed to access the site via each of the roads assessed (consistent with the Transport Impact Assessment undertaken by GTA).

Table 2 Summary of estimated increases in existing and future (construction) daily traffic volumes

Road	Total Existing (vpd)[1]			Estimated Additional Vehicles During Project Construction (vpd)[2]			Total Post Development (vpd)		
	LV	HV	TOTAL	LV	HV	TOTAL	LV	HV	TOTAL
Crookwell-Goulburn Road (north of Marble Hill Rd)	2,148	239	2,387	+174	+46	+220	2,322 (+8%)	285 (+19%)	2,607 (+9%)
Range Road (east of Grabben Gullen Rd)	167	19	185				341 (+104%)	65 (+242%)	405 (+119%)
Grabben Gullen Road (at Range Rd)	443	49	492				617 (+39%)	95 (+94%)	712 (+45%)
Kialla Road (north of Range Rd)	332	37	369				506 (+52%)	83 (+124%)	589 (+60%)
Range Road (east of Kialla Rd)	388	43	431				562 (+45%)	89 (+107%)	651 (+51%)

Notes: *1. The assessment assumes a 90:10 split between light vehicles (LV) and heavy vehicles (HV).*

2. Refer Table 4.3 of the Traffic Impact Assessment (GTA, 2015) and Page 20 of the RtS Report for discussion of these traffic estimates

In regards to Item 3 above, DPE confirmed via email on 10 June 2016 (refer *Annex A*), that the previous correspondence (of 31 May 2016) that indicated a ULSC requirement for upgrade to 7.7 km of Kialla Road was incorrect, and that the 2.5 km quoted in the RtS Report was correct. As such, no further response to this issue is required.

2. ASSESSMENT OF DWELLINGS OFF CHURCH LANE / BERTALBA ROAD

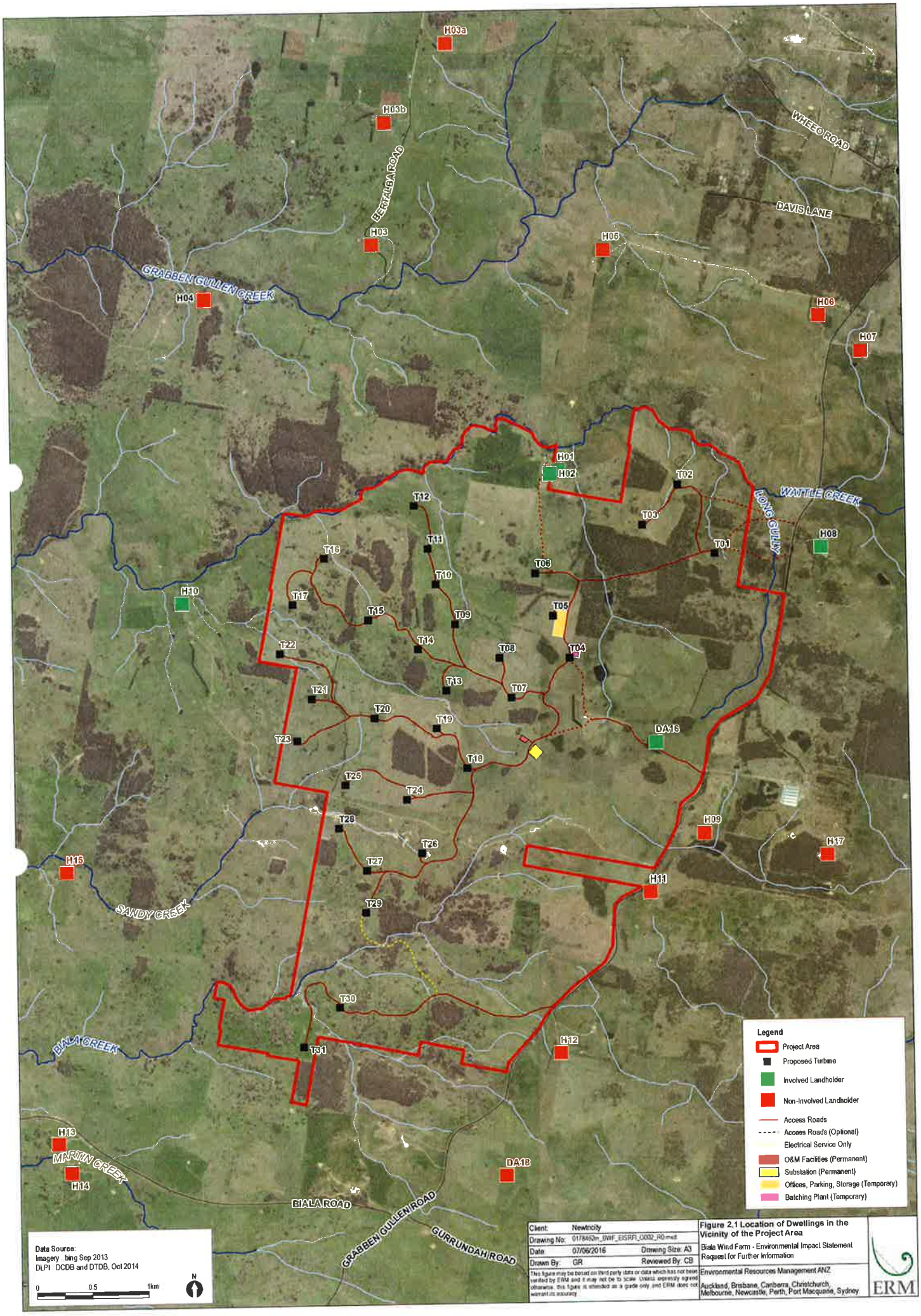
At the meeting of 8 April, DPE noted that the EIS and RtS Reports did not clearly demonstrate that two dwellings located along Church Lane / Bertalba Road had been considered and assessed for potential environmental impacts associated with the Project. DPE requested confirmation that these dwellings have been adequately assessed, specifically associated with potential visual, noise and shadow flicker impacts.

The two subject dwellings (referred to as H03a and H03b), are located north of dwelling H03. Dwelling H03 is located approximately 2,409 m from the nearest wind turbine generator (WTG), and dwellings H03a and H03b are located a further distance away as illustrated in *Figure 2.1*. Approximate coordinates of dwellings H03a and H03b are provided in *Table 3*.

Table 3 Approximate Coordinates of Dwellings H03a and H03b

Dwelling ID	Status	Easting (m)[1]	Northing (m)[1]	Approximate Distance From Nearest WTG (m)
H03a	Non-involved	715505	6176500	4,216
H03b	Non-involved	714938	6175789	3,496

Notes: *1.Coordinate System is WGS84 Zone 55H*


H03a
H03b
H03
H04
H05
H06
H07
H08
H09
H10
H11
H12
H13
H14
H15
H17
DA18
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T31
BEMBALBA ROAD
WHEEO ROAD
DAVIS LANE
GRABBEN GULLEN CREEK
WATTLE CREEK
LONG GULLY
SANDY CREEK
BIALA CREEK
MARTIN CREEK
BIALA ROAD
GRABBEN GULLEN ROAD
GURRUNDAH ROAD
Legend
Project Area
Proposed Turbine
Involved Landholder
Non-Involved Landholder
Access Roads
Access Roads (Optional)
Electrical Service Only
O&M Facilities (Permanent)
Substation (Permanent)
Offices, Parking, Storage (Temporary)
Batching Plant (Temporary)
Data Source:
Imagery bing Sep 2013
DLPI DCDB and DTDB, Oct 2014
0
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Client: Newtricity
Drawing No: 0178463m_BWF_EISRFI_0002_R0.mxd
Date: 07/06/2016
Drawing Size: A3
Drawn By: GR
Reviewed By: CB
This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
Figure 2.1 Location of Dwellings in the Vicinity of the Project Area
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Request for Further Information
Environmental Resources Management ANZ
Auckland, Brisbane, Canberra, Christchurch, Melbourne, Newcastle, Perth, Port Macquarie, Sydney
ERM

The three dwellings located along Church Lane / Bertalba Road have been considered in the EIS and RtS, with any potential impacts to these dwellings identified.

H03 was in most cases, used as a representative dwelling for assessment of potential impacts on this group of dwellings, given it was the closest in proximity to the Project of the three. H03 was identified to generally fall outside of the potential area of impact for those environmental issues where impacts are directly linked to separation distance from WTGs (for example, noise, shadow flicker), and so the other two dwellings located further away from WTGs were also considered unlikely to be impacted by the Project. Further consideration of these dwellings associated with each of the key environmental issues is provided below.

2.1 VISUAL IMPACTS

All three dwellings were identified and assessed as part of the Landscape Character and Visual Impact Assessment (LCVIA) included as Annex I to the EIS. They were represented as '*Private Receptor Viewpoint 6*' in the LCVIA.

At the time of preparation of the LCVIA, individual access to each of these three dwellings/properties was not possible, and so a worst case scenario impact rating of Moderate/High was adopted for this viewpoint, noting that potential screening associated with existing vegetation around these dwellings would likely reduce the adopted impact rating.

In response to DPE's request for further information and the outcomes of an independent review undertaken by Green Bean Design, additional visual analysis has been undertaken by Clouston Associates in April/May 2016. This assessment provides individual consideration of each of the dwellings and included site inspections at the dwellings and re-assessment of the expected visual impacts of the Project on dwellings H03a and H03b. A full copy of the additional analysis is included as *Annex B*.

The additional analysis considered topography, presence of existing screening vegetation, and dwelling orientation, and re-assessed the visual impact ratings for dwellings H03a and H03b as Moderate/High and Low respectively. The assessed rating for H03 was unchanged as a result of the additional analysis undertaken, and remains as Moderate/High as outlined in the LCVIA.

Further discussion of the findings of the additional visual analysis, including tabulated assessment results for all dwellings in the vicinity of the Project, along with consideration of potential mitigative measures for those dwellings assessed as a Moderate/High impact rating, is provided in *Section 3*.

2.2 NOISE IMPACTS

Construction Noise

In consideration of potential construction noise impacts associated with the Project, the five closest receptors to any project infrastructure (i.e. WTG, access roads, batching plants etc.) were selected for assessment in construction scenario analysis (refer Chapter 5 of the Supplementary Acoustic Assessment contained as Annex H to the EIS).

Dwelling H03 was considered in the construction noise assessment, however it did not appear in the construction scenario analysis undertaken given its separation distance to all Project infrastructure fell well outside the distance range of the closest 5 dwellings included for each modelled scenario.

Dwellings H03, H03a and H03b may experience some construction noise impacts associated with the Project, however as demonstrated in the Supplementary Acoustic Assessment, these should be minor and well within allowable noise limits.

Operational Wind Turbine Noise

Potential noise impacts associated with operation of the wind farm were assessed in the Wind Farm Noise Assessment undertaken by DNVGL and included as Annex G to the EIS.

As documented in the Wind Farm Noise Assessment, H03 was assessed as being compliant with relevant limits for wind farm noise by 6-7 dBA. Given that H03a and H03b are located further away from the Project than H03, potential noise impacts at these two dwellings should be less than the impacts at H03. Based on the findings of the Wind Farm Noise Assessment, any noise impacts at H03a and H03b should be minor and well within allowable noise limits.

2.3 SHADOW FLICKER IMPACTS

Potential shadow flicker impacts associated with operation of the wind farm were assessed in the Shadow Flicker and Blade Glint Assessment undertaken by DNVGL and included as Annex O to the EIS.

As illustrated in Figures 6 and 7 of the Shadow Flicker and Blade Glint Assessment (figures reproduced in *Annex C*), H03, along with H03a and H03b, are all located well outside the predicted impact envelope for theoretical annual shadow flicker durations, and therefore there should be no shadow flicker impacts at any of these dwellings.

3. SUMMARY OF VISUAL IMPACTS BY DWELLING

As outlined above, additional visual analysis was undertaken by Clouston Associates in April/May 2016 in response to DPE's request on 29 March 2016 for further information in consideration of the outcomes of an independent review undertaken by Green Bean Design. Specifically, DPE requested that the additional analysis consider a number of dwellings not considered in the original assessment undertaken by Clouston Associates, and provide results of the visual assessment in a tabulated form addressing each individual dwelling in the vicinity of the Project.

The additional analysis has been undertaken and included a site inspection on 29 April 2016 to access and assess numerous dwellings that were not able to be accessed previously.

In addition, Clouston Associates further updated the analysis in June 2016 in response to additional information provided by DPE regarding the confirmed location and proposed orientation of the dwelling referred to as 'DA18' located off Gurrundah Road, southeast of the PA. The precise location of this proposed dwelling was previously unknown as it had not been specified on the Council approved DA plans nor confirmed by the landowner. In the absence of this information, the RtS Report incorporated assessment of potential impacts at this dwelling that included assumptions regarding the potential 'worst-case' siting of this dwelling within the lot with respect to predicted visual impacts. The confirmed location of the dwelling does not reflect this 'worst-case' scenario, and hence the visual analysis has been updated to reflect the confirmed location and amended impact ratings.

A full copy of the additional visual analysis is included as *Annex B*, which provides:

- re-assessment of the expected visual impacts of the Project on a number of dwellings, including wireframe images to demonstrate indicative visual impacts;
- assessment of the expected visual impacts at several dwellings off Sapphire Road that were not considered within the original assessment;
- re-assessment of the expected visual impacts on DA18, taking into account new information on the likely positioning and orientation of the dwelling; and
- discussion of the mitigation effectiveness at dwellings that have recorded an expected visual impact rating of moderate/high or high.

The outcomes of the additional analysis have informed further discussions with a number of landowners regarding mitigation measures to reduce potential visual impacts where expected visual impact has been rated as moderate/high or high.

Further discussion regarding these landowner negotiations is provided below.

4. LANDOWNER AGREEMENTS

4.1 INVOLVED LANDOWNERS

As discussed at the meeting of 8 April 2016, Newtricity as the Proponent, has confirmed that all required agreements with involved landowners are in place.

Newtricity will forward formal correspondence to DPE separately outlining the status of agreements with involved landowners, including reference to associated environmental impacts (noise/visual/shadow flicker) and infrastructure to which they have agreed, with specific commercial/other confidential information to be excluded.

4.2 NON-INVOLVED LANDOWNERS

At the meeting of 8 April 2016, DPE recommended that, where visual impacts are rated as moderate/high or high, formal agreement with impacted landowners should be pursued by Newtricity. Based on the additional visual analysis undertaken by Clouston Associates, this applies to dwellings H03 and H03a.

As part of the site inspection undertaken on 29 April 2016, potential visual impacts on the dwellings H03 and H03a, along with potential mitigation options were discussed in detail with the landowners of these properties (one group of landowners own both these properties) and representatives of Newtricity and Clouston Associates. These discussions identified possible options for provision of screening vegetation along the southern side of each dwelling that would filter views of the WTGs and reduce visual impacts at each dwelling. As outlined in *Annex B*, it is considered that implementation of the identified mitigation measures would result in a reduction of the unmitigated visual impact ratings of moderate/high to a mitigated impact rating of moderate/low for both dwellings.

At the April 2016 site inspection, and during subsequent consultation with the landowners of these two dwellings, the landowners have expressed their willingness to agree to the anticipated visual impacts associated with the Project at their dwellings and the identified vegetation screening mitigation measures. A formal letter of agreement has been forwarded to the landowners of these dwellings, and it is anticipated that formal acceptance of this agreement will be provided by the landowners by the end of June 2016. Newtricity will forward confirmation to DPE separately once this agreement has been reached.

5. TRANSMISSION LINE

Notwithstanding that the transmission line connection from the Project to the existing electricity network will be pursued separately under Part 5 of the *Environmental Planning & Assessment Act 1979* (EP&A Act), DPE has requested additional information regarding the transmission line connection options for the Project in order to demonstrate that there is a feasible transmission line connection available for the Project. Outlined below is a brief summary of the current connection options under consideration.

At the time of preparation of the EIS, a 132 kV overhead transmission line connection to the Yass to Goulburn 132 kV line via an on-site 33/132 kV substation and 132 kV transmission line and switching station was being pursued as the preferred option. This option is continuing to be explored; however, subsequent to submission of the EIS, further investigation, including a review of connection options, has been undertaken, which has identified several additional alternatives that are currently being considered. These alternatives include connection to the existing network via the following connection points:

1. Gullen Range Wind Farm (GRWF) 330 kV Switching Station (to the Yass to Bannister 330 kV transmission line); or

2. Gunning Wind Farm (GWF) 132 kV transmission line (to the Yass to Goulburn 132 kV transmission line).

Each connection point option is discussed in the sections following, and illustrated in the schematic included in *Annex D*. For each connection option, both underground or overhead transmission line connection options (or a combination of both) are being explored, which are discussed in *Section 5.3*.

5.1 OPTION 1 - GULLEN RANGE WIND FARM CONNECTION POINT

The existing GRWF 330 kV switching station (TransGrid Asset) was constructed for the Gullen Range Wind Farm and is situated on land associated with it. Three connection scenarios for this point are under consideration, including:

a) 33 kV underground connection to the existing GRWF 33/330 KV substation.

   The GRWF substation has a firm capacity of 194 MVA while the maximum GRWF output is nominally 160 MW. Connection of the Project (80 MW) would require cooperation with the GRWF to upgrade the existing substation and shared metering requirements. Preliminary consultation with the GRWF owners has been receptive.

b) 33 kV underground connection to a new 33/330 kV substation located adjacent to the existing GRWF 33/330 kV switching station.

   This connection would be independent of the GRWF, however would require acquisition of a substation site on GRWF land.

c) 33 kV underground connection to a new 33/330 kV substation located near the existing GRWF 33/330 kV switching station, but on land outside the GRWF site.

   This connection would be independent of the GRWF but would require acquisition of a suitable substation site and a short TransGrid 330 kV overhead transmission line.

5.2 OPTION 2 - GUNNING WIND FARM CONNECTION POINT

The existing GWF 132 kV transmission line has sufficient capacity to connect both the GWF and BWF. The potential constraint on this connection point is the existing capacity of the Yass to Goulburn 132 kV transmission line (specifically the Yass to Cullerin portion - line 971(2)) and the combined output of the BWF (80 MW), GWF (45 MW) and Cullerin Range Wind Farm (30 MW).

This option would therefore require installation of a new switching station in the Yass to Goulburn line such that the combined total output from these three wind farms is split to flow to either Goulburn or Yass.

At the time of preparation of the EIS, connection of both the Biala Wind Farm and the GWF to the Yass portion of the existing transmission line was not considered feasible. However, following further investigation and assessment, it is now considered technically possible to connect to the Yass to Cullerin portion of the existing line through implementation of monitoring and management, and upgrade works if necessary. Consultation with Essential Energy (as the asset owner of this portion of the line - line 971(2)) has identified this as a relatively simple and technically effective connection arrangement subject to a number of issues that will need to be addressed before the arrangement can be confirmed as technically feasible. This option is being further investigated in consultation with Essential Energy.

5.3 TRANSMISSION LINE OPTIONS

The proposed underground collector network for the Project will be 33 kV, and it was originally proposed to step-up to 132 kV at an on-site 33/132 kV substation. However, it is possible to extend the 33 kV collector network off-site to the point of connection to the existing network, or alternatively to a 33/132 kV or 33/330 kV substation at an intermediate location and then continue overhead at either 132 kV or 330 kV to the connection point.

Whilst it is considered unlikely that installation of underground 132 kV would be commercially viable, it is considered feasible for a 33 kV transmission line to be installed underground or overhead, and to transition between the two as required to suit the terrain and landholder requirements, and in response to any other identified environmental constraints. A key advantage of 33 kV underground transmission is that it is feasible for it to be placed within existing public roads where necessary due to landholder constraints or preferences, or in response to other environmental constraints.

In consideration of the above connection options and technical constraints, alternative routes for overhead and / or underground transmission lines are being investigated for connection of the Project to either the GRWF 330 kV switching station or the GWF 132 kV transmission line. Landholder consultation along several route options indicates a strong likelihood of being able to secure an acceptable and practical transmission line connection from the Project to the existing electricity grid.

6. BIODIVERSITY

DPE's email of 29 March sought clarification on the following biodiversity related issues:

1) *Potential for relocating the access track between T01 and T06 in order to avoid impacts to the EEC vegetation between the turbines;*

2) *Further discussion of options to avoid/minimise impacts on the wedge tailed eagle and nest located adjacent to T29 and T30; and*

3) *Commitment to undertake bat monitoring as part of the Bird and Bat monitoring program.*

In addition, DPE's subsequent email of 31 May 2016 sought clarification on the following:

4) *Confirmation that the pavement rehabilitation works and intersection treatments proposed would not impact roadside trees beyond those identified in the vicinity of the northern access point;*

5) *Confirmation of the plant community areas within the project boundary and clearing area associated with the project; and*

6) *Clarification of length of the access road between T01 and T06 that would require widening from 4m to 10 m.*

Further discussion and response to the above queries is outlined below.

6.1 ACCESS ROAD BETWEEN T01 AND T06

This section provides response to Items 1 and 6 (listed above) of DPE's correspondence of 29 March and 31 May respectively.

As summarised in *Table 4* the access road between T01 and T06 is approximately 1,692 m long with 1,012 m of it traversing the vegetated area (refer also Table 4 and Figure 1.1, Annex F of RtS Report).

Table 4 Access Road Sections T01-T06

Access Road Section	Length (m)
T01-T06: From T01 west to eastern edge of vegetation	227
T01-T06: Vegetated area	1012
T01-T06: From western edge of vegetated area to T06	454
Total	1692

Table 5 shows the length of access road traversing the various vegetation types in the vegetated patch between T01 and T06, and the areas requiring clearing (for vegetation mapping refer Figure 1.1, Annex F of RtS Report). The EA and RtS Reports contain vegetation clearance calculations that assume the area is currently vegetated in which case the Project would require clearing of approximately 1.02 ha through that vegetated patch. In reality however, there is currently a formed access road measuring approximately 4 m wide that would be widened by up to an additional 6 m to construct the proposed access road. The calculation of the vegetation to be cleared, acknowledging the existing access road at 4 m wide, is 0.60 ha, of which 0.28 ha is the TSC Act listed Endangered Ecological Community (EEC): *Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South Western Slopes Bioregions* (TGW EEC). As the access road through that vegetated patch exists, the clearing required for the project will not create new edges, nor is it wide enough to cause habitat fragmentation.

Furthermore, the clearance for the access road assumes that a maximum width of 10 m along the entire length. This 10 m width provides a corridor in which the access road could be widened allowing construction of associated drainage structures and batter slopes within that 10 m. However, given the relatively small vertical elevation changes in along the alignment, the access road and infrastructure will more than likely not be 10 m wide along the entire length and in some places may be less than 10 m. Therefore, the calculations of vegetation to be cleared could provide an overestimation of the clearing required. The amount of clearing that will be required within the 10 m wide corridor allowed for in the EA will only be known following detailed design.

A discussion is provided regarding the potential to avoid the vegetated patch between T01 and T06 despite the negligible ecological impacts rendering any alternative unnecessary. Options were considered involving new access roads around the northern side of the vegetated patch. Various reasons exist that make a road around the northern side of the vegetated patch not feasible:

- the design is based on an existing road, currently used for agricultural purposes. Any access road around the northern side would be entirely new;
- the northern access road route would require a new creek crossing and associated issues/impacts that are otherwise avoidable; and
- involved landholders are not supportive of creation of an additional road, given there is an existing road that can be upgraded to support the construction of the project, but that will also provide added value/benefit to ongoing agricultural use in the future.

Table 5 Vegetation Zones and Area Impacted by the Road T01-T06

Vegetation Zone ID	Vegetation Zone	Length Traversed (m)	Area Cleared (ha) Assuming No Existing Road (i.e. 10 m clearance)	Area Cleared (ha) Acknowledging Existing Road (at 4 m wide)
351_MG-DNG	Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion_Mod-Good_DNG	106.29	0.11	0.06
351_MG-M	Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion_Mod-Good_Mod	457.66	0.44	0.26
1097_MG-M	Ribbon Gum - Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion_Mod-Good_Mod[1]	447.88	0.47	0.28
Totals		**1011.83**	**1.02**	**0.60**

Notes: *1. Denotes TGW EEC.*

6.2 WEDGE TAIL EAGLE IMPACTS

This section provides response to Item 2 (listed above) of DPE's correspondence of 29 March.

The avoidance of any ecological features in any development should be considered to achieve as minimal an ecological impact as possible within the parameters of project functionality, however projects will have some residual impacts. In this case, T29 and T30 can't be sited any further away from the nest location. The active Wedge-tailed Eagle nest was identified between T29 and T30 separated by a distance of approximately 340 m and 615 m respectively.

ERM provided an analysis in the EA and the RtS using the available, reputable published data (Smales 2015). OEH's response quotes unpublished data regarding the impacts of nearby wind farms on Wedge-tailed Eagles; data which ERM are unable to access. Should OEH supply this data, this could allow for a detailed analysis of the potential impacts that T29 and T30 may pose to the regional population of the Wedge-tailed Eagle. In the absence of the data, the current analysis must consider these factors in considering the justifiability of relocating turbines from a whole-of-project perspective:

- the Wedge-tailed Eagle is a common, highly mobile and wide-ranging species;
- the species' status is secure in NSW;
- it is extremely unlikely that the mortality of a nesting pair of Wedge-tailed Eagles will affect this secure status enough to cause the species to be eligible for listing under the TSC Act or EPBC Act; and
- further, it is extremely unlikely that the mortality of a nesting pair of Wedge-tailed Eagles will have an impact on the regional population and if previous approvals have caused the regional population to decline such that this single nesting pair are now significant in the region, then the approval process and conditions for those other wind farms must be critically revisited. That would include actively altering the operation of those wind farms via their Bird and Bat Adaptive Management Plans (BBAMPs).

Notwithstanding, the BBAMP prepared during the post-approvals phase will include discussion of this location and the Wedge-tailed Eagle across the monitoring area.

6.3 BAT MONITORING

This section provides response to Item 3 (listed above) of DPE's correspondence of 29 March.

All previous documents (Chapter 09 and Annex F of the EIS, and the RtS Report) acknowledge that risks to birds and bats posed by the wind farm will be monitored as described in a Bird and Bat Monitoring Plan. This will be developed in consultation with OEH and will include consideration of monitoring threatened species migration, behaviour triggers and management responses.

6.4 VEGETATION CLEARING

This section provides response to Items 4 and 5 (listed above) of DPE's correspondence of 31 May.

Roadside Trees

The Transport Impact Assessment included as Annex K to the EIS, identified requirements for tree removal at some of the intersections requiring upgrade along the RAV route. However, following receipt of ULSC and OEH comments during exhibition of the EIS regarding tree removal, turning circle designs have been revised to avoid any removal of trees at these intersections (refer Page 22 of RtS Report in response to ULSC comment; and Page 24 of RtS Report in response to OEH comment).

As outlined in Annex C of the RtS Report, the proposed pavement rehabilitation works along sections of Kialla and Range Roads would generally require works within the existing cleared road reserve, and therefore any impacts to trees associated with this rehabilitation works are considered unlikely.

Vegetation Clearing Impacts

Table 6 contains the revised proposed vegetation clearance in the Development Footprint by Vegetation Zone and the area in the Project Area.

Table 6 Summary of Vegetation Clearance

Plant Community Type	*Condition Classes*	*Conservation Significance (TSC Act)*	*Area in Project Area (ha)*	*Area to be Cleared (ha)*
Native Vegetation				
PCT ID 351: Brittle Gum – Board-leaved Peppermint – Red Stringy open forest in the north-western part (Yass to Orange) of South Eastern Highlands Bioregion	Mod_Good_Mod	-	260.39	0.67
	Mod_Good_Sparse	-	97.05	0.24
	Mod_Good_DNG	-	92.92	1.11
PCT ID 1097: Ribbon Gum – Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion	Mod_Good_Mod	EEC	53.24	0.68
PCT ID 1100: Ribbon Gum – Snow Gum grassy forest on damp flats, eastern South Eastern Highlands Bioregion	Mod_Good_Mod	EEC	2.10	0.00
Planted native vegetation	-	-	3.60	0.30
Sub-total Native Vegetation			**509.30**	**3.00**
Non-native Vegetation				
Non-native pastures and other land cover types	-	-	1420.35	39.37
Total (ha)			**1929.65**	**42.37**

7. ARCHAEOLOGY

DPE's email of 29 March 2016 requested further discussion and commitment to avoid potential archaeological deposits (PADs) located adjacent to or within the footprint of the proposed project infrastructure, including BWF13, BWF19 and BWF PAD1.

BWF13, BWF19 and BWF PAD1 are all located immediately adjacent to or within the footprint of proposed Project infrastructure. However, as outlined in the RtS Report, the Project Area is relatively unconstrained from an environmental sensitivity perspective (refer Figure 5.3 of the EIS), thereby providing flexibility for siting of Project infrastructure, such that future detailed design of the Project may be able to avoid mapped areas of Aboriginal heritage (or significant archaeological deposits should they be identified through sub-surface testing).

As committed in the EIS and RtS, each of the PAD areas within the PA that have been identified as having moderate or high potential to reveal Aboriginal cultural heritage, will be subject to a sub-surface testing program where disturbance to these areas cannot be avoided during detailed design of Project infrastructure.

As discussed and agreed at our meeting of 8 April 2016 and prior meetings during preparation of the RtS report, the proposed approach to defer sub-surface text excavation to the detailed design phase of the Project, was considered appropriate given: the environmental setting of the Project; potential for avoidance of impacts through detailed design; and committed mitigation measures as outlined in the RtS (including the Cultural Heritage Assessment contained in Annex D).

No ground disturbing activities in the location of Aboriginal heritage sites or areas of PAD will take place until the sub-surface archaeological investigations outlined in the Cultural Heritage Assessment (Annex D to the RtS Report) have been undertaken and reported on. The sub-surface testing program would be undertaken as part of the detailed design phase of the Project during which locations of Project infrastructure components and ground disturbing activities would be confirmed, and would occur prior to ground disturbing activities of the proposed wind farm development commencing. If the sub-surface testing program identifies significant archaeological deposits these may be subjected to a salvage excavation or avoided as part detailed design.

Further, as committed in the RtS report (refer Section 5), an Aboriginal Cultural Heritage Management Plan (ACHMP) will be prepared and implemented to manage sub-surface testing activities and the Aboriginal heritage values within the PA. The ACHMP will include strategies to manage any Aboriginal heritage sites identified during future survey work or significant deposits found during sub-surface testing.

8. VOLUNTARY PLANNING AGREEMENT

As requested by DPE, Newtricity has forwarded a formal letter of offer relating to the establishment of a Community Enhancement Program (CEP) for the Project to ULSC for consideration. Consistent with the commitment made within the EIS, the offer outlines the proposed contribution for each constructed wind turbine by the Proponent to the CEP for the operational life of the Project. A copy of the letter is provided in *Annex E*.

9. LOW FREQUENCY NOISE ASSESSMENT

DPE's email of 2 June 2016 requested additional information regarding assessment of low frequency noise impacts associated with the Project, including confirmation that the low frequency noise would be no greater than the levels considered acceptable in the *Draft NSW Planning Guidelines Wind Farms* (2011).

Outlined below is a brief discussion of low frequency noise and assessment of potential impacts associated with the Project in reference to the relevant technical literature available on this subject, and based on the results of the Noise Impact Assessment undertaken for the Project (refer Annex G of the EIS).

9.1 BACKGROUND

Noise is generally considered to be low frequency below around 200 Hz. Below 20 Hz, which is generally considered the threshold of human hearing, the noise is considered to be infrasound.

A-weighted noise levels are commonly used in environmental noise assessments, as these are considered to best reflect the human response to noise, where changes in noise level of higher frequencies are perceived as being more significant than lower frequencies. However, if a noise source has large contributions in the low frequency spectrum, in some cases it is possible that this component of the noise emission may not be suitably assessed using A-weighted noise levels. In this situation, an alternative to A-weighting that has been used in industry is C-weighting, which is sometimes used for assessing low frequency noise levels.

Low frequency noise is not usually demonstrated to be a problem with modern WTGs. Aerodynamic noise levels from a modern WTG in the low frequency range are generally less dominant than noise in the mid-range frequencies between 200 and 1000 Hz [1], which are more prominent. Association of WTGs with excessive low frequency noise may be due to misinterpretation of the 'swishing' sound typically heard in close proximity to WTGs, which is actually amplitude modulation and not low frequency noise. Early WTGs which had

their tower located upwind of the rotor also produced significant levels of low frequency noise that may have contributed to associations of WTGs with low frequency noise [2].

9.2 CONSIDERATION OF POTENTIAL IMPACTS ASSOCIATED WITH THE PROJECT

A recent study by Moller and Pedersen (2011) has shown that the frequency profiles of modern wind turbines are generally similar irrespective of turbine rated power [3]; the data presented in this study also demonstrate that modern wind turbines do not generally emit significant levels of low frequency noise relative to other frequencies. Within a Technical Note [4] detailing the development of the Draft NSW Guidelines [5], it is stated that due to the relationship of frequencies in the noise profile of wind turbines, controlling the higher frequency end of the noise spectra will also have the effect of controlling the lower frequency end of the noise spectra. The mid to higher end of the noise frequency spectra, where the noise is dominant in A-weighted measurements of the turbine noise, is controlled for the Project through a requirement for compliance with the A-weighted wind farm noise limits at residences as defined in the Draft NSW Guidelines.

The SEARs [6] for the Project do not specify a C-weighted wind farm noise limit at residences. However reference is made to the Draft NSW Guidelines which state that:

If it is shown that the C-weighted noise (measured from 20 Hz upwards) from a wind farm (excluding any wind induced or extraneous C-weighted noise) is repeatedly greater than 65 dB(C) during the daytime or 60 dB(C) during the night-time a more detailed low frequency noise assessment should be undertaken.

Therefore, in order to assess the potential impact of low frequency noise for the Project, a noise limit of 65 dBC (day) and 60 dBC (night) has been assumed. It is also assumed that these are Leq values, being the measure used for the A-weighted noise limits applied to the wind farm according to the SA EPA Guidelines [7]. It is assumed that only exceedance by the wind farm of these noise limits would identify a need for further investigation.

The prediction accuracy of wind farm noise using A-weighted sound levels by applying models such as ISO 9613-2 [8] is generally well understood. However the accuracy of predicting C-weighted sound levels is less well known, with only limited studies available. The ISO 9613-2 model is frequently applied for assessment of wind farms using A-weighted levels, however there may be an over or under prediction if applied using C-weighted input sound levels. In addition, the ISO 9613-1 standard [9], which is normally used to define the atmospheric attenuations used in the ISO9613-2 noise model, only specifies

attenuation rates down to 50 Hz, whereas the Draft NSW Guidelines require assessment of C-weighted noise levels including frequencies from 20 Hz. Therefore, it is considered that there could be significant uncertainty in applying existing noise models to predict the C-weighted low frequency noise at residential locations.

In order to assess the low frequency impact of the Project, this assessment therefore relies on an empirical adjustment to predicted A-weighted noise levels to derive expected C-weighted noise levels.

For example, the German DIN 45680 Standard for evaluating low frequency noise [10] specifies that further investigations into low frequency noise should be undertaken if the difference between A-weighted and C-weighted noise levels is greater than 20 dB. While a minimum difference of 20 dB is recommended by Broner [11], in this paper a difference of 15 dB is also reported as a good "rule-of-thumb" to identify potential low frequency noise problems. A difference between A-weighted and C-weighted noise levels of 15 dB is also allowed under the NSW Industrial Noise Policy before penalties are applied [12]. According to the Technical Note by Parnell [4], it is understood that the C-weighted noise limits as defined in the Draft NSW Guidelines are also based on the Broner study [11].

It is understood that an accepted practice by the assessing planning authority to assess the low frequency noise is to add 15 dB to predicted A-weighted noise levels at residences. This adjustment margin is also similar in magnitude to the dBA / dBC difference required before low frequency noise may be considered an issue, according to the industry references given above. While the turbine type selected for the Project is not yet finalised, it should also be noted that near to wind turbines, the difference between the overall C-weighted power level and overall A-weighted power level is generally less than 15 dB.

As per the resultant LAeq, 10 minute predicted wind farm noise levels presented in Annex F, Table 8.2 of the Noise Impact Assessment for the Project (Annex G of the EIS), the highest predicted A-weighted noise level for the Project are as follows:

- for any involved landowner dwelling, is 45 dBA at a wind speed of 11 m/s; and
- for any non-involved landowner dwelling, is 40 dBA at a wind speed of 12 m/s.

These are the highest predicted values and noise levels associated with the Project. Predicted levels are lower at all other involved and non-involved residences and at other wind speeds, as is identifiable in the resultant LAeq,

10 minute noise levels presented in Annex F, Table 8.2 of the Noise Impact Assessment for the Project.

Based on the above methodology of adding 15 dB to A-weighted levels, the maximum C-weighted noise level would be ≤60 dBC for any residence, which would be in compliance with the noise limits given in the Draft NSW Guidelines. Given the empirical nature of this methodology, it is recommended that the C-weighted values derived for the Project are confirmed by measurements after the wind farm is commissioned and operational.

9.3 REFERENCES

1. "Wind Farms Technical Paper – Environmental Noise", Report prepared for Clean Energy Council, Report No. SC3387C6, Sonus, November 2010.
2. "A proposed Metric for Assessing the Potential of Community Annoyance from Wind Turbine Low-Frequency Noise Emissions", Kelley, N.D., SERI/TP-217-3261, November 1987.
3. "Low Frequency Noise from Large Wind Turbines", H Moller and C. S Pedersen, Journal of Acoustical Society of America 129(6), 3727-3744, 2011.
4. "Development of the Draft NSW Planning Guidelines: Wind Farms", J. Parnell, Noise Specialist, NSW Department of Planning and Infrastructure, Acoustics Australia Vol. 40, April 2012 (No.1).
5. "Draft NSW Planning Guidelines Wind Farms", NSW Department of Planning and Infrastructure, December 2011.
6. "Secretary's Environmental Assessment Requirements", SEARs for Biala Wind Farm - Application Number SSD 13_6039, NSW Department of Planning and Infrastructure, 19 May 2015.
7. "Wind Farms Environmental Noise Guidelines", SA EPA, February 2003.
8. "Acoustics – Attenuation of sound during propagation outdoors, Part 2: General method of calculation", ISO 9613-2 (1996).
9. "Acoustics – Attenuation of sound during propagation outdoors, Part 1: Calculation of the absorption of sound by the atmosphere", ISO 9613-1 (1993).
10. "Measurement and Evaluation of Low-Frequency Environmental Noise", DIN 45680, March 1997.
11. "A Simple Outdoor Criterion for Assessment of Low Frequency Noise Emission", N. Broner, Acoustics Australia, Vol. 39, April 2011 (No.1).
12. "NSW Industrial Noise Policy", NSW EPA, January 2000. http://www.epa.nsw.gov.au/noise/industrial.htm

10. CONSTRUCTION NOISE ASSESSMENT

DPE's email of 2 June 2016 requested the following:

The construction noise assessment contained in the Supplementary Noise Assessment at Annex H of the EIS primarily includes assessment of associated residences. The assessment indicated significant exceedances of the "highly noise affected" criterion in the EPA's Interim Construction Noise Guidelines for these associated residences.

The Department requests an assessment of the construction noise impacts on non-associated residences in the vicinity of the proposed construction works.

As outlined in Section 3.1 of the Supplementary Acoustic Assessment report (included as Annex H to the EIS), the assessment of potential construction noise impacts included identification of those receptors considered to be representative of locations that will potentially experience the highest impacts associated with construction aspects of the Project.

This incorporated consideration of all potentially affected receptors in the vicinity of the Project, including both involved and non-involved landholder properties. Refer Table 3.1 of the Supplementary Acoustic Assessment report, which identifies involved landholders (H01, H02, H08, H10, DA16) and non-involved landholders (H03-H07, H09, H11-H15, HN17). Refer Chapter 5 of the Supplementary Acoustic Assessment report outlining the scenarios developed based on the range of construction activities that will be required during construction of the Project.

ERM has assessed all known receptors, regardless of their status (i.e. involved or non-involved), to ensure recommendations for mitigation and management measures were developed based on worst-case impacts. The recommended mitigation is expected to reduce noise levels at the most affected (typically involved land owners) and at other receptors located further away (non-involved land owners) and within the surrounding communities.

11. CLOSE

I trust this satisfies your requirements. Should you have any additional queries, please contact the undersigned on 02 4903 5500.

Kind Regards,
for Environmental Resources Management Australia Pty Ltd

Claire Burnes
Project Manager

Murray Curtis
Partner

Annex A

DPE REQUESTS FOR ADDITIONAL INFORMATION

From: nicole.brewer@planning.nsw.gov.au
To: "newtricity@optusnet.com.au"
Cc: Mike.Young@planning.nsw.gov.au; Sara.Wilson@planning.nsw.gov.au; Claire Burnes
Subject: Biala Wind Farm - further information required
Date: Tuesday, 29 March 2016 12:41:24 PM
Attachments: image001.jpg
OEH Submission.pdf
20160329 Land Ownership Visual Impact GBD .docx

Dear Anne

The Department requests a meeting with Newtricity to discuss additional information requirements in relation to proposed Biala Wind Farm (SSD 13_6039) development.

Specifically, the Department has concerns about the outcomes of the *Landscape Character and Visual Impact Assessment* (VIA) undertaken by Clouston Associated (July, 2015) and included in Annex I of the Environmental Impact Statement.

The Department engaged Mr Andrew Homewood from Green Bean Designs to peer review the VIA and complete a site inspection of the properties located in the vicinity of the proposed wind farm. Mr Homewood conducted the site inspection with a representative from the Department (Ms Sara Wilson) on 22 March 2016.

During the site inspection, Mr Homewood identified several issues in relation to the VIA which require clarification, including:

- *Assessment of dwellings:*
  - Numerous dwellings were identified within 5 kilometres of a proposed wind turbine that were not assessed as part of the VIA.
  - In particular, a residential dwelling is located on top of a ridge on the eastern side of Bertalba Road (Church Lane), north of dwelling H03. This dwelling is considered likely to experience moderate to high visual impacts associated with the Biala Wind Farm development, as well as cumulative impacts with both Gullen and Gunning Wind Farms.
  - Several other dwellings located on the eastern side of Sapphire Road have not been assessed as part of the VIA.
- *Level of impact:* The level visual impact predicted by Clouston at the majority of the non-involved dwellings surrounding the proposed site are considered to be overly conservative, particularly in some instances where the wind farm is unlikely to be visible from the residence.

A summary of the preliminary findings of Mr Homewood, compared to the predictions made by Clouston, is **attached**.

In addition to discussing issues in relation to the visual assessment, the Department requests that Newtricity provides:

- Transmission line: further justification for discarding other options for connecting the wind farm to the network, particularly as some of these options may require a significantly shorter route with fewer environmental and landholder impacts (e.g. connection at Gullen Range);
- Landholder agreements:
  - the status of agreements with associated landholders and what these agreements cover in terms of impacts from the wind farm (ie. H01, H02, H08, H10 and DA16);
  - the status of any further discussions / negotiations with non-involved landholders (particularly where significant visual impacts have been identified);
- Biodiversity:
  - potential for relocating the access track between T01 and T06 in order to avoid impacts to the EEC vegetation between the turbines;
  - further discussion of options to avoid/minimise impacts on the wedge tailed eagle and nest located adjacent to T29 and T30;
  - commitment to undertake bat monitoring as part of the Bird and Bat Monitoring Plan.
- Archaeology: further discussion and commitment to avoid potential archaeological deposits

(PADs) located adjacent to or within the footprint of the proposed project infrastructure, including BWF13, BWF19 and BWF PAD1;

It is noted that several of these issues were noted as residual concerns in the Office of Environment and Heritage's (OEH's) submission on the Response to Submissions (see **attached**).

The Department requests a meeting to discuss these matters at your earliest convenience.

regards
Nicole

Nicole Brewer
Team Leader | Resource Assessments | Planning Services
Department of Planning & Environment GPO Box 39 Sydney NSW 2001
T 02 9228 6374 E nicole.brewer@planning.nsw.gov.au

****My regular work days are Tuesday, Thursday and Friday**

From: Sara.Wilson@planning.nsw.gov.au
To: Claire Burnes; Murray Curtis
Cc: newtricity@optusnet.com.au; nicole.brewer@planning.nsw.gov.au
Subject: Biala - Request for Additional Information
Date: Tuesday, 31 May 2016 2:02:46 PM

Dear Claire and Murray,

The Department is progressing with the detailed assessment of the Biala Wind Farm project.

As part of this assessment, representatives from the Department met with several residents living in the vicinity of the site to get a better understanding of the potential issues and impacts associated with the project. This included meeting Mr & Mrs Katz at their property off Gurrundah Road (ie. DA 18). During this meeting the Department representatives were shown the proposed location for the construction of the new dwelling on this property. It is noted that the new dwelling is proposed to be constructed in a subtle hollow on the eastern side of the ridge at the top of the property (adjacent to a newly constructed water tank). The dwelling is proposed to face toward the east / south-east away from the proposed wind farm site.

In light of this information, it is requested that Newtricity obtain precise GPS coordinates of the proposed dwelling location at DA18 and reassess the visual impacts of the project on this residence.

Furthermore, the Department requests the following additional information to further inform the assessment:

Negotiated Agreements

- Progress and status of negotiated agreements with landowners, particularly the two residents located along Church Lane identified within the H03 viewshed.

Voluntary Planning Agreement (VPA)

- A copy of the letter of offer from Newtricity to Upper Lachlan Shire Council detailing the agreed community fund program (ie. $2,500 per constructed turbine per annum indexed to CPI).

Traffic and Transport

- Clarification of the existing traffic figures (daily and peak) along the key local roads. The traffic volume counts provided in Table 2.1 of the GTA *Transport Impact Assessment* (Annex K of the EIS) were taken during a short period of time (15 minutes) in the middle of the day. Please provide an analysis of the methodology used to extrapolate these figures for the peak hour and daily traffic estimates, and any additional local traffic data to confirm the accuracy of these traffic counts.
- Provision of the percentage increase in predicted traffic volumes associated with the Project when compared to the existing volume of traffic along key local roads (including a spilt between light and heavy vehicles).
- Clarification of the length of Kialla Road proposed to be reconstructed as part of the project. Note the Department has recently received correspondence from Council indicating that it was agreed that Newtricity would reconstruct 7.7 km of Kialla Road (not the 2.5 km quoted in the Response to Submission Report).

Roadside Tree Clearing

- Confirmation that the pavement rehabilitation works and intersection treatments proposed would not impact roadside trees beyond those identified in the vicinity of the northern access point.

Vegetation Clearing

- Confirmation of the plant community areas within the project boundary and clearing area associated with the project. Please refer to highlights in the table below.

Table: *Vegetation Community Impacts*

Plant Community Type	*Condition Classes*	*Conservation Significance (TSC Act)*	*Area in Project Area (ha)*	*Area to be Cleared (ha)*
Native Vegetation				
PCT ID 351: Brittle Gum – Board-leaved Peppermint – Red Stringy open forest in the north-western part (Yass to Orange) of South Eastern Highlands Bioregion	Mod_Good_Mod	-	260.39	1.48
	Mod_Good_Sparse	-	97.05	0.18
	Mod_Good_DNG	-	92.92	1.61
PCT ID 1097: Ribbon Gum – Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion	Mod_Good_Mod	EEC	53.24	0.002
	Mod_Good_DNG	EEC	??	??
PCT ID 1100: Ribbon Gum – Snow Gum grassy forest on damp flats, eastern South Eastern Highlands Bioregion	Mod_Good_Mod	EEC	2.10	??
Planted native vegetation	-	-	3.60	0.03
Sub-total Native Vegetation			**509.30**	**3.57**
Non-native Vegetation				
Non-native pastures and other land cover types	-	-	1420.35	38.80
Total (ha)			**1929.65**	**42.37**

- Clarification of length of the access road between T01 and T06 that would require widening from 4m to 10 m.

Please feel free to call and discuss.

Regards

Sara

From: Sara.Wilson@planning.nsw.gov.au
To: Claire Burnes
Subject: Low Frequency Noise
Date: Thursday, 2 June 2016 1:34:39 PM

Hi Claire

The *Noise Impact Assessment* at Annex G of the EIS does not include assessment of low frequency noise impacts associated with the Project.

Can you please provide this assessment and confirmation that the low frequency noise would be no greater than the levels considered acceptable in the *Draft NSW Wind Farm Planning Guidelines*?

Sara

From: Sara.Wilson@planning.nsw.gov.au
To: Claire Burnes
Subject: Construction Noise
Date: Thursday, 2 June 2016 6:56:04 PM

Dear Claire

The construction noise assessment contained in the Supplementary Noise Assessment at Annex H of the EIS primarily includes assessment of associated residences. The assessment indicated significant exceedances of the "highly noise affected" criterion in the EPA's Interim Construction Noise Guidelines for these associated residences.

The Department requests an assessment of the construction noise impacts on non-associated residences in the vicinity of the proposed construction works.

Please feel free to call and discuss.

Regards

Sara

From: Sara.Wilson@planning.nsw.gov.au
To: Claire Burnes
Cc: newtricity@optusnet.com.au; Murray Curtis; nicole.brewer@planning.nsw.gov.au
Subject: Kialla Road Upgrades
Date: Friday, 10 June 2016 8:29:33 AM

Dear Claire

The Department has had further discussions and correspondence from Upper Lachlan Shire Council regarding the agreed length of Kialla Road to be reconstructed as part of the Biala project.

Council has retracted its previous correspondence indicating that 7.7 km of Kialla Road is required to be upgraded, and has confirmed that the previously agreed length of 2.5 km is correct.

Can you please let me know when you will be submitting the additional information requested in relation to the Biala project?

Please feel free to call on 0414997714 to discuss.

Regards

Sara

Annex B

ADDITIONAL VISUAL ANALYSIS

CLOUSTON associates

BIALA WINDFARM
Additional Visual Analysis
Issue D 06.06.16

BIALA WINDFARM
Additional Visual Analysis

Client:
ERM

Prepared by

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Document	Issue	Date	Status	Verified	Validated
S14-0160	A	02/05/16	DRAFT	MK	
	B	03/05/16	FINAL	MK	CL
	C	10/05/16	FINAL	MK	CL
	D	06/06/16	FINAL	MK	CL

Note: this document is preliminary unless validated.

1.0 BIALA WIND FARM - ADDITIONAL VISUAL ANALYSIS

1.1 PURPOSE OF REPORT

The purpose of this report is to respond to the independent review by Green Bean Design of the CLOUSTON Associates Biala Wind Farm (BWF) Landscape Character and Visual Impact Assessment (LCVIA) - Issue E.

A further site visit was undertaken on 29th April 2016 to access several properties that had not been available during the time of the initial assessment.

This report provides:

- re-assessment of the expected visual impacts of the BWF on dwellings H03A, H03B, H13, H14 and H15 following a detailed site visit
- an assessment of the expected visual impacts at several dwellings not considered within the original assessment. These include H19, H20, H21, H22 and H23 off Sapphire Road
- a discussion of mitigation effectiveness at dwellings that have recorded an expected visual impact rating of moderate/high or high
- wire-frame images to demonstrate indicative visual impacts at H03A, H13, H14 and H15.
- a reassessment of the impacts on DA18, taking into account new information on the likely positioning and orientation of the dwelling.

Ratings within the original report that did not significantly vary from the Green Bean assessment have not been further analysed.

1.2 MITIGATION

Wind turbines are by their nature tall and visually prominent. The turbine design and location is limited by functional requirements and minor changes such as colour choice and reflectivity are unlikely to change the visual impact enough to alter any impact ratings.

Screen planting around affected dwellings has been considered the most effective form of mitigation appropriate to the BWF project. Whilst screen planting can be highly effective in blocking or filtering views, the impact is often of a highly local nature and can remove parts of the view that may still be considered desirable.

This solution may be effective for some landowners based on the location of their dwelling. Screen planting needs to be undertaken at the detail design stage in close consultation with the relevant land owner.

Screen planting would likely reduce some of the visual impact ratings recorded within this assessment and is discussed further within the visual analysis section of this report.

1.2.1 Screen planting effectiveness

It is important to acknowledge the following key points regarding screen planting:

- The species and type of vegetation used will directly impact effectiveness. Dense foliage and branch structure will screen views better than thinner branches and fewer leaves. Denser plantings will, however, block more light.
- Evergreen species will screen views throughout the year whilst deciduous trees will allow filtered views during winter months.
- Trees can take many years/decades to reach maturity. Planting should be of advanced stock to create an instant screening effect.
- Quick growing hedges may offer a better outcome than trees.
- Screen planting will be more effective where it bolsters existing planting and fills in gaps.
- Screen planting tends to be less effective on elevated dwellings with panoramic views. In these situations the view frame is often too large to be effectively screened.

Native Eucalypts have a branching canopy that allows filtered views through

Conifers form a dense screen that blocks views effectively

DWELLING LOCATIONS

VISUAL ANALYSIS

Landholder ID	Status	Distance from Nearest WTG (m)	Visual Impact			CLOUSTON Associates Site Visit - 29/04/16	Mitigation Assessment		Supporting imagery
			Initial CLOUSTON Rating	*Green Bean Rating*	*Updated CLOUSTON Rating*	*Notes*	*Screening vegetation*	*Mitigated rating*	
H01	Involved	911	-	-					
H02	Involved	912	-	-					
H03	Non-involved	2409	M-H	M-H	-	Assessment as per original LCVIA.	A line of mature trees or hedge planting (10m+ in height) to the southern side of the dwelling may partially filter/screen views of the turbines. The level of screening provided would depend on the height of trees and density of foliage. Evergreen trees would provide year round screening with deciduous species being less effective during winter months.	Moderate to Low	Photomontage (prepared for original LCVIA)
H03A	Non-involved	4216	-	M-H	M-H	Dwelling located on top of ridge, adjacent to an old church and currently has clear views to Gullen Range turbines to the east/south east and Gunning turbines to the south. Collector turbines in the west are visible in from the property but not the dwelling. Would experience direct views Biala turbines, including from within house with proposed turbines occupying a large portion of the view shed. Moderate/high visual impact expected.	A line of mature trees or hedge planting (5-8m height) to the southern side of the dwelling would effectively filter views of the turbines. The level of screening provided would depend on the height of trees and density of foliage. Evergreen trees would provide year round screening with deciduous species being less effective during winter months.	Moderate to Low	Wireframe over site photo
H03B	Non-involved	3496	-	-	L	Dwelling orientated north and surrounded by dense vegetation. Some windows on the southern side of the dwelling may have oblique views over one or two turbines, although the rest will be blocked by topography and vegetation. A major impact on visual amenity is not expected.	-	-	-
H04	Non-involved	2598	M-L	M-L	-	-	-	-	-
H05	Non-involved	2243	M-L	L	-	-	-	-	-
H06	Non-involved	2004	M	L	-	-	-	-	-
H07	Non-involved	2062	M	M	-	-	-	-	-
H08	Involved	962	-	-					
H09	Non-involved	2005	M	L	-	-	-	-	-
H10	Involved	1002	-	-					
H11	Non-involved	2001	M	L	-	-	-	-	-
H12	Non-involved	2035	M	L	-	-	-	-	-
H13	Non-involved	2377	M-H	L	M-L	Located on south side of Biala Gurrundah Road. Dwelling orientated north/west with large veranda wrapping around the property. A hill/ridge is located between dwelling and turbines although the tips of several turbines may be visible above the hill. The hubs of several of the most eastern turbines are also likely to be visible, partially screened by existing vegetation. A major impact on visual amenity is not expected.	-	-	Wireframe over site photo
H14	Non-involved	2382	M-H	L	M	Located on south side of Biala Gurrundah Road. Dwelling orientated north facing turbines. A hill/ridge is located between dwelling and turbines although the tips of some turbines may be visible above the hill. The hubs of two of the eastern most turbines are likely to be visible, partially screened by vegetation. A major impact on visual amenity is not expected.	-	-	Wireframe over site photo
H15	Non-involved	2442	M-H	L	L	Main habitable area of dwelling orientated east. Existing view towards nearby undulating ridge line with patches of woodland. Topography and vegetation likely to block views towards the majority of turbines. The blade tips of several turbines may be visible above the tree line. The hub and blades of two turbines may be visible to the south east although a major impact on visual amenity is not expected.	-	-	Wireframe over site photo
DA16	Involved	1093	-	-					
H17	Non-involved	2920	M	N	-	-	-	-	-
DA18	Non-involved	2024	H	H	M	Location of dwelling confirmed by owner. Property sits to southeast of topographical peak meaning that elevated topography of hill will screen views of WTGs to the north. Dwelling likely to be orientated southeast, reducing the level of expected visual impact.	Mitigation likely to be effective due to partial visibility of some WTGs.	Moderate/Low	Visual simulation
H19	Non-involved	7810	-	M-L	M	Property located near corner of Sapphire Road and Biala Gurrundah Road. Slightly elevated dwelling with views east towards turbines. Tops of numerous turbines likely to be visible above undulating topography.	-	-	-
H20	Non-involved	6960	-	L	L	Located on the east side of Sapphire Road, this dwelling is surrounded by tree planting and unlikely to have views towards any turbines.	-	-	-
H21	Non-involved	5100	-	L	L	Located on the east side of Sapphire Road, this dwelling is surrounded by tree planting and unlikely to have views towards any turbines.	-	-	-
H22	Non-involved	5740	-	L	M-L	Located on the west side of Sapphire Road, this dwelling has little vegetation surrounding it and may have clear views towards several turbines. Others will be blocked by the undulating topography.	-	-	-
H23	Non-involved	5700	-	L	N	Located on the east side of Sapphire Road, this dwelling is surrounded by tree planting and unlikely to have views towards any turbines.	-	-	-

H03
Photomontage

H03A
Wireframe

H13
Wireframe

H14
Wireframe

H15
Wireframe

PRIVATE RECEPTOR
VIEWPOINT 11 (DA 18)

Viewpoint location

Area plan

Area Plan

Location	Type	Nearest WTG	No. of properties	Receptors
Off Grabben Gullen Road	DA approved dwelling	2.138km	1 (DA 18 - proposed)	Future residential dwelling

Despite repeated attempts, it was not possible to gain access to this property to take site photos, however co-ordinates have recently been provided for the dwelling's location. The owner confirmed that the likely orientation of the dwelling would be south or southeast.

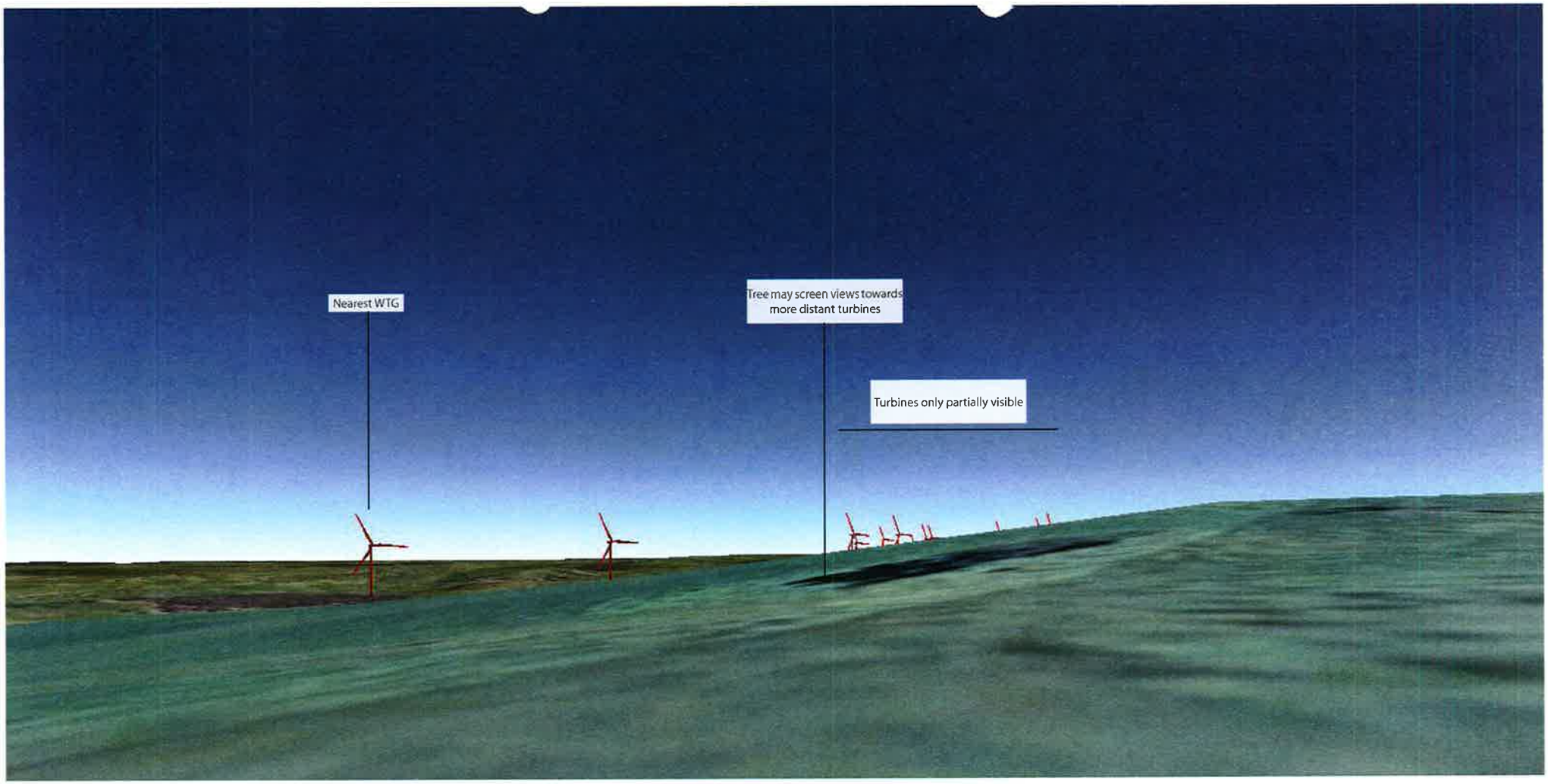
Simulated visual representations have been produced to indicate the expected visual impact of the WTGs from the approximate dwelling location looking both northwest and southeast. These images give an indicative representation of the magnitude of expected visual impacts.

Current view	Expected Visual Impact
The approved DA property site sits on a elevated hill, southeast of the topographical peak. There are likely to be expansive and far reaching views available to the west, south and east. A patchwork of fields, stands of woodland and individual tree plantings would be visible, stretching to the horizon. WTGs associated with Gunning Wind Farm would be visible to the south at a distance of approximately 6.7km. Views to the north will be mostly blocked by the elevated topography of the hill.	A simulated view of the Project from this property has been created using Google Earth and 3D modelling software - as shown in Photo 11A and B. As shown in 11A, the two closest WTGs would be clearly visible to the northwest at a distance of approximately 2.1km. Blade motion would be discernible. The upper portions of 10 more distant turbines to the north may also be visible, partially obscured by the elevated ridge line of the hill. The majority of these WTGs would only be visible as blade tips and these WTGs may be obscured by a tree within the foreground. Overall, a moderate impact rating on visual amenity is expected from this location. The presence of existing WTGs within the viewfram, along with the southerly orientation of the dwelling reduce the sensitivity of the receptor to visual change. The visible Biala WTGs will appear within a panoramic viewframe and a significant impact on visual amenity is not expected.

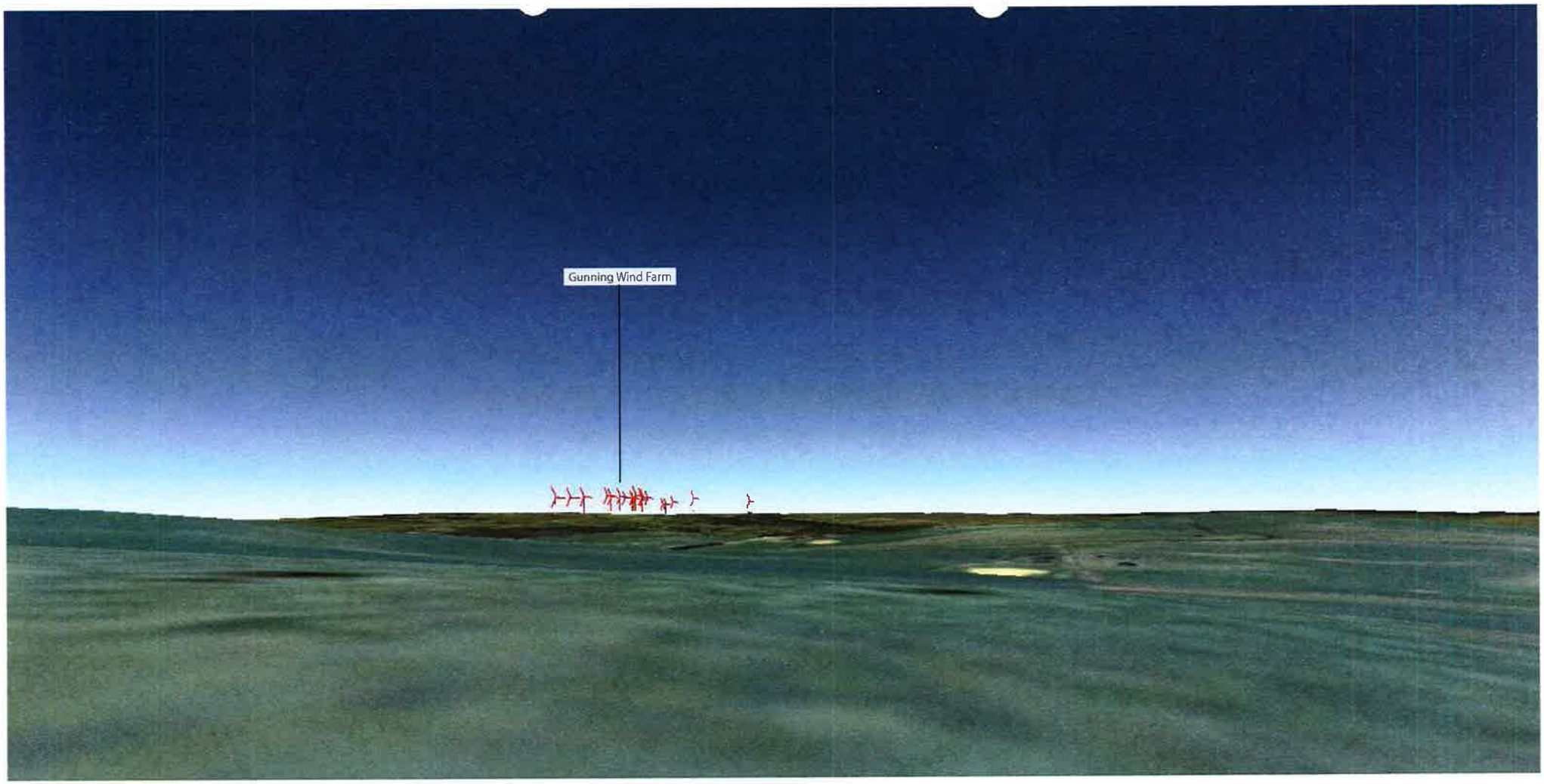
		MAGNITUDE				
RECEPTOR IDENTIFICATION	RECEPTOR SENSITIVITY	DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	MAGNITUDE OF CHANGE	SUMMARY OF RATINGS
11	M	M	L	M	M	M

Overall Visual Impact Rating	MODERATE

From Table 03, using a combination of sensitivity and magnitude ratings.



Viewpoint 11 - Photo 11A - Simulated view northwest towards proposed Blaia Wind Farm from location of proposed property DA18



Viewpoint 11 - Photo 11B - Simulated view south towards Gunning Wind Farm from location of proposed property DA18

CLOUSTON Associates
Level 2, 17 Bridge Street • Sydney NSW 2000
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Mobile + 0418 981 869
Telephone +61 2 8272 4999
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Annex C

SHADOW FLICKER RESULTS

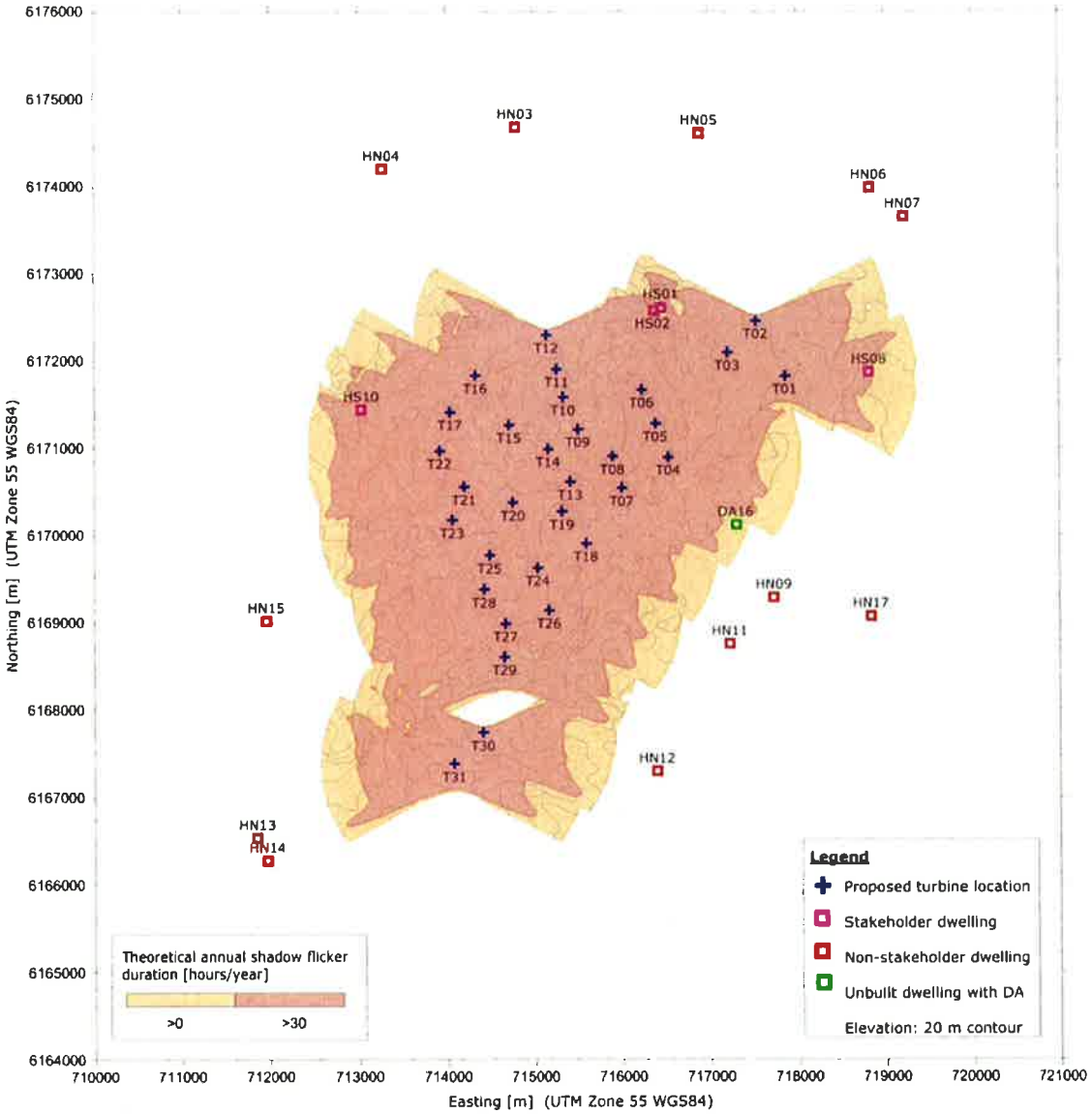


Figure 6: Map of the proposed Biala Wind Farm with turbines, dwelling locations and theoretical annual shadow flicker duration at 2 m above ground level

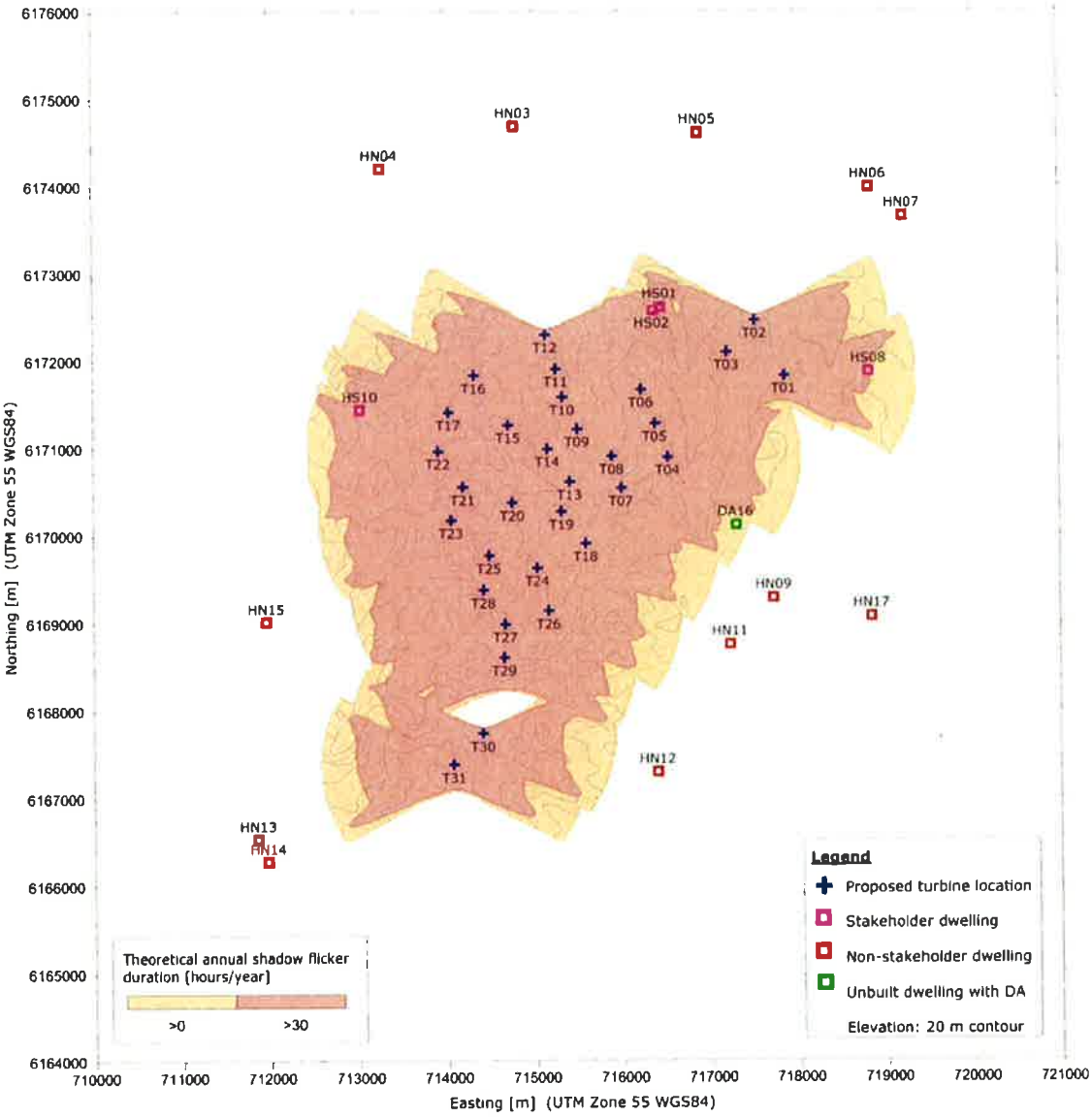
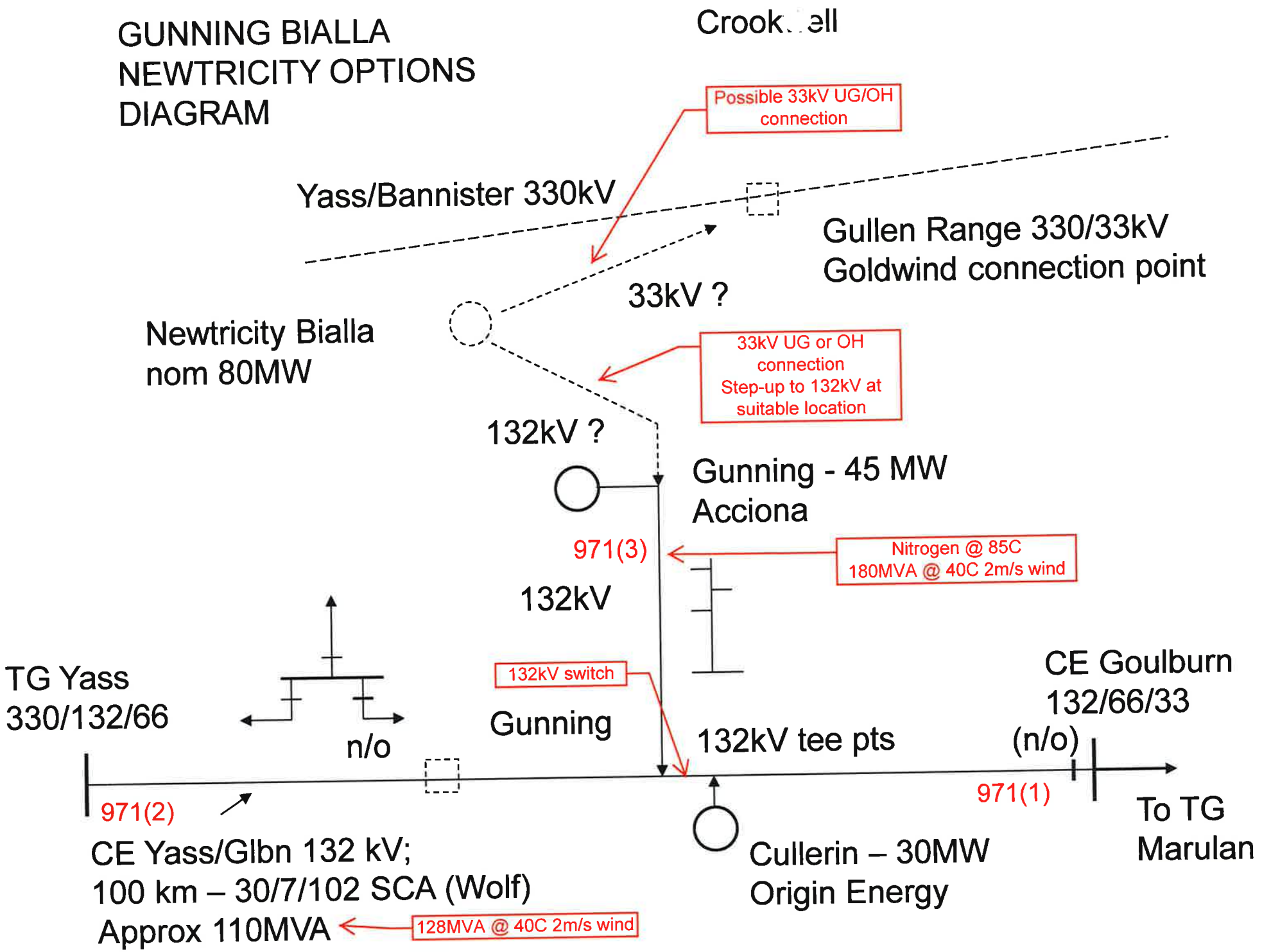


Figure 7: Map of the proposed Biala Wind Farm with turbines, dwelling locations and theoretical annual shadow flicker duration at 6 m above ground level

Annex D

BWF CONNECTION OPTIONS


GUNNING BIALLA
NEWTRICITY OPTIONS
DIAGRAM
Crook..ell
Possible 33kV UG/OH connection
Yass/Bannister 330kV
Gullen Range 330/33kV
Goldwind connection point
33kV ?
Newtricity Bialla
nom 80MW
33kV UG or OH connection
Step-up to 132kV at suitable location
132kV ?
Gunning - 45 MW
Acciona
971(3)
Nitrogen @ 85C
180MVA @ 40C 2m/s wind
132kV
TG Yass
330/132/66
132kV switch
CE Goulburn
132/66/33
n/o
Gunning
132kV tee pts
(n/o)
971(1)
971(2)
To TG
Marulan
CE Yass/Glbn 132 kV;
100 km – 30/7/102 SCA (Wolf)
Approx 110MVA
128MVA @ 40C 2m/s wind
Cullerin – 30MW
Origin Energy

Annex E

COPY OF NEWTRICITY LETTER OF OFFER TO ULSC REGARDING CEP

Newtricity

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Gladesville NSW 2111

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Facsimile +61 2 4929 5363

www.newtricity.com.au

A.B.N. 66 121 562 653

7 June, 2016

General Manager
Upper Lachlan Shire Council
PO Box 42
GUNNING NSW 2581
Via Email: council@upperlachlan.nsw.gov.au

Our Reference: *ULSC CEP NEWTRICITY OFFER_JUNE2016.DOCX*

Attention: **Tina Dodson**

Dear Tina,

RE: BIALA WIND FARM – COMMUNITY ENHANCEMENT PROGRAM

The Department of Planning and Environment (DP&E) is currently assessing the Development Application (SSD 13_6039) for the Biala Wind Farm (the Project) under the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act). As discussed, as part of that assessment, DP&E has requested that the Proponent, Newtricity, forward a letter of offer to Upper Lachlan Shire Council (ULSC) outlining the agreed funding proposed in support of establishment of a Community Enhancement Program (CEP) for the Project.

Given that the Project is yet to receive approval under the EP&A Act, a formal agreement between Newtricity and ULSC establishing a CEP for the Project cannot yet be executed. However, the purpose of this letter is to reconfirm Newtricity's commitment, as outlined in the Environmental Impact Statement (EIS), to contribute the sum of $2,500 per constructed turbine to the CEP, commencing upon commissioning of the Project until the end of its operational life, with the contribution being adjusted to take account of any increase in the Consumer Price Index (All Groups Index for Sydney) over time commencing at the September 2010 quarter.

Assuming, and following, approval of the Project under the EP&A Act, Newtricity will enter into an agreement with ULCS for provision of a CEP associated with the Project of a form consistent with that of the attached ULSC template document (refer Attachment 1).

I trust that this satisfies the requirements of both ULSC and DPE at this stage of the Project, and look forward to continuing to work with ULSC in developing the CEP at the appropriate time.

Yours Sincerely,

Annmaree Lavery

Annmaree Lavery
Business Owner

Attachment 1: Template Community Enhancement Program

COMMUNITY ENHANCEMENT PROGRAM

UPPER LACHLAN SHIRE COUNCIL

&

[Insert Name]

1. INTRODUCTION

The [Insert Name] Wind Farm (the Project) is a State Significant development consisting of XX wind turbines at [Insert names] in the Southern Tablelands region of NSW. The Project was assessed in accordance with the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). The Project was approved [Insert date]. The Project is being delivered by [Insert Name].

2. PURPOSE OF THIS DOCUMENT

This document describes and establishes the mechanism for administering the Community Enhancement Program (CEP) for the Project as required by the appropriate Planning Authority.

The CEP is an initiative being delivered jointly by the Upper Lachlan Shire Council and [Insert Name] to enhance the community's quality of life and wellbeing.

2.1 Planning Approval Requirements

Prior to the commencement of construction of the project, the Proponent shall prepare and submit for the approval of the Director-General, a Community Enhancement Program with the aim of funding community enhancement measures to the benefit of the local community that consists of:

a) a Community Fund, to provide funds to undertake initiatives which provide a direct benefit to the local community.

The Community Enhancement Program shall be developed in consultation with the Upper Lachlan Shire Council and the local community and provide details of:

a) *the process by which the program's funds would be administered, including mechanisms for accounting and reporting;*

b) *how measures and initiatives to be funded by the program would be identified, assessed, prioritised and implemented over the life of the project; and*

c) *any other terms agreed to by the parties.*

The Proponent shall each year contribute the sum of $XXXX per constructed turbine to the Community Enhancement Program, commencing upon commissioning of the project until the end of its life. The contribution shall be adjusted to take account of any increase in the Consumer Price Index (All Groups Index for Sydney) over time, commencing at the September 2010 quarter.

The Community Enhancement Program shall not require any financial contribution from any recipient of the scheme nor shall the program be conditional on the extent of government subsidies or rebates available for measures to be funded by the program.

3. THE COMMUNITY ENHANCEMENT PROGRAM

3.1 General Guidelines

What is the Community Enhancement Program

The CEP is intended to provide funds from [Insert Name] Wind Farm to enhance and enrich community initiatives throughout the local community. The CEP is an initiative being delivered jointly by the Upper Lachlan Shire Council and [Insert Name].

Within the CEP the Community Fund will provide financial contributions to community projects and initiatives such as equipment purchases, facility construction, renovation/rehabilitation projects, new programs or special funding that will enhance the community's quality of life and wellbeing.

It is proposed that the CEP is governed by the terms outlined in this document.

What are the objectives of the CEP?

Overall objectives of the CEP are to:

- Benefit the members, associations and businesses located within the target community.
- Support (and not harm) any individual, activity or infrastructure belonging to the target community commencing upon commissioning of the Project until the end of its life.
- Be honest and accountable to the target community's entitlements.
- Be lawful and subject to an independent audit.

How much funding will be provided for the CEP and when will it become available?

The total CEP funding commitment is:

- $XXXX per completed wind turbine per year. XX turbines have been installed.

Funding would be adjusted to take account any increase in the Consumer Price Index (All Groups Index for Sydney) over time, commencing at the September 2010 quarter.

It is expected that the distribution of funds will begin in the 2013/2014 financial year.

3.2 CEP Processing

How do I apply for funding?

Application processes are tailored to each funding stream to ensure that all relevant information is collected.

- Community Fund application forms will be processed and administered by the Community Fund Committee (the Committee) and a guide will be prepared to assist applicants. Incomplete application forms will be returned.

Additional requirements for eligibility are outlined in more detail in Section 4.

Who can apply for CEP funding?

The eligible target community for the CEP includes:

- Community funds, projects/programs or facilities that are located within, or provided a direct benefit to, the community within 10 kilometres of the Project.

Eligible property owner and resident applications would be given preference, however, non-permanent residents who work within the area and property owners who do not reside within the area are considered members of the community and are encouraged to apply.

The target community excludes:

- Landowners who have granted a lease or easement to the wind farm owner.

The purpose of the CEP is *'to broaden the benefits of the wind farm within the local community'*. Therefore, landowners who already benefit through lease and easement payments from the wind farm owner are excluded from the target community for the CEP.

How was the Target Community decided?

The Project's Environmental Assessment (EA) indicated that residents within 10 kilometres of the Project would be provided the opportunity to benefit from the CEP. This is measured in terms of distance from the outermost turbines and is consistent with the Upper Lachlan Shire Council's *"aim to allocate contribution to projects in areas located within 10 kilometres of a turbine."*

Figure 1: Target community area

INSERT MAP HERE

How often will applications be processed during the year?

Applicants will be informed of decisions after the end of the applicable review period. This will include feedback as to whether the application has been successful or not and relevant rationale.

Community Fund:

- Applications will be administered on an annual basis. The application process will adhere to following yearly timelines:
  - November - January - requests for applications,
  - January - February - the Committee to review applications,
  - April - Committee approval of applications and notification of applicants, and
  - June - funds released.

Application processing and funding allocation will consider the funding cycle for other programs and the potential need for more than one funding opportunity each year.

Table 1: CEP Structure

SECTION	***COMMUNITY FUND***
OBJECTIVES	To address issues directed at improving the quality of life for the people of the target community. For the provision of community facilities, services and community interest groups.
CRITERIA	As outlined in Section 4
PROCESS	Applications will be invited yearly. Each eligible application will be assessed and brought to the Committee for review.
ELIGIBLE PARTIES	Target community members within 10 kilometres. Applications outside the target community will be considered based on their merits and if it meets the key objectives.
GOVERNANCE	Committee consensus decision. Refer to the Upper Lachlan Shire Council Code of Meeting Practice in the instance where no consensus is reached.
ADMINISTRATION	Secretarial support will be provided by Upper Lachlan Shire Council.
TIMING	Following Project commissioning. Applications will be assessed in line with the administration and review periods outlined in Section 3.2.
COSTS	The costs of administering the Community Fund shall be paid to the Council out of the Community Fund on an as needed basis and be no more than $5,000 per annum, indexed to CPI over the life of the project.

4. COMMUNITY FUND DETAILS

4.1 Funding process and criteria

Who will govern the Community Fund?

A Community Fund Committee (the Committee) will be formed to govern the Community Fund. As the Project is located within the Upper Lachlan Shire Council Local Government Area (LGA), the Upper Lachlan Shire Council will be responsible for governance of the Committee.

The Committee will be constituted under Section 355 of the *Local Government Act 1993.* Section 355 enables councils to obtain the assistance of committees, including those constituted by external individuals (such as citizens from within or outside the local council area).

Committee members will be appointed for four years and the effectiveness of the group will be reviewed annually by a sub-committee comprising: a representative of [Insert Name] and Upper Lachlan Shire Council. A quorum for decision making will be a majority of appointed members.

The Committee would be required to comply with applicable Council policies and statutory requirements.These may include, but are not limited to:

- Code of Conduct.
- Code of Meeting Practice - Section 355 Committees.
- Section 355 Committee policy.
- Work Health & Safety Act.
- Risk Management.
- Privacy and Personal Information Protection Act.
- Government Information (Public Access) Act.
- Local Government Act and Regulations.

What is the role of the Community Fund Committee?

The Committee's role will be to:

- Publically call for applications for funding of projects or activities to benefit the local community.
- Evaluate funding applications and make recommendations to Council.

Committee tasks will include:

- Identifying priority projects/programs and activities for funding.
- Establishing the selection criteria for the evaluation of applications.
- Developing an application form and guide to assist applicants.
- Publically advertising: nominations for community Committee members, appointed Committee members; call for funding applications and selection criteria.
- Evaluating applications against selection criteria.
- Making recommendations to Council's Operational Plan and budget process.
- Reviewing funding priorities for upcoming financial years.

Who are the Committee Members?

The Committee will include:

- An authorised representative from [Insert Name];
- Mayor of Upper Lachlan Shire Council or Councillor delegate;
- General Manager of the Upper Lachlan Shire Council or Council delegate; and
- two community representatives.

The Chair of the Committee would be appointed by the agreement of the Committee, and an Executive Officer, appointed by Upper Lachlan Shire Council will be responsible for the provision and distribution of meeting notes and relevant documentation to Committee members. The Executive Officers specific role, i.e. whether they would form part of the committee or have a purely administrative role would be determined by Upper Lachlan Shire Council.

Replacement members are required in the case of a Councillor stepping down from the Committee and must be replaced by another elected member from that Council. If a casual vacancy arises, the Committee would determine a suitable replacement. Observer status may be granted to Upper Lachlan Shire Council elected members and other community members on request.

Who can become a Community Representative?

Persons who live within the Upper Lachlan Shire Council LGA who are able to demonstrate skills and experience relating to the terms of reference, under the Council 355 Committee Policy, are eligible to apply. Preference will be given to nominees that live within the target community.

Landowners who have granted a lease or easement to any wind farm owner are not eligible to become a community representative.

Membership on the Committee is purely voluntary. Expenses incurred can be submitted to [Insert Name], however, reimbursement is not guaranteed and is at [Insert Name]'s discretion.

How do I apply to become a Community Representative?

Community members will be invited to nominate for the Committee through an advertisement in a local paper and through direct communications from Upper Lachlan Shire Council. Selection of community representatives will be conducted by the sub-committee, however, final membership of the Committee be confirmed by the Upper Lachlan Shire Council.

4.2 FUNDING APPLICATION

How do I apply for Community Fund funding?

Application forms will be made available on the Upper Lachlan Shire Council website and can be requested at any time. Application forms will include a guide to assist applicants to ensure that the application is completed correctly and all supporting documentation is included. Applications should be sent to Upper Lachlan Shire Council via email or post. Incomplete application forms will be returned.

Applications will be subject to the administration and review periods as outlined in Section 3.2.

What criteria will be used to evaluate applications?

Due to the limited funds available not all requests that meet the established criteria will be approved. The selection criteria will be confirmed and communicated to the community following the Committee's establishment. As a guide, general selection criteria may include:

Project benefits

- direct and indirect community benefit.
- quality of life/community wellness enhancement.
- program/ project operational efficiencies.
- demographics served.

Target community need

- public safety/improved access.
- provide a direct service to the community.
- Council/community support.

Availability of funding

- prior funding to applicant.
- demonstration of need for financial assistance.

Project/ program viability

- background of applicant (i.e. organisation size/ representation, prior experience).
- the extent to which project or program duplicates other available facilities or programs in the area.

In addition to the above, applications must satisfy the following criteria:

- Aim to improve the quality of life for the people in the Target Community.
- Aim to provide facilities and services for the target community.
- Not profit individuals or private entities.
- Provide full financial and legal disclosure on the activity and be subject to independent audit.

Programs or projects with benefits beyond the target community will be considered based on their capacity to benefit those people within the target community. Funding will not be allocated to projects/ programs or activities that may harm wind farm operations.

All eligible applications, from individuals, businesses and or organisations meeting the selection criteria will be reviewed and considered by the Committee. The Committee will meet to discuss and determine, through consensus, the successful application(s). Given that the final funding decisions are to be endorsed by the Upper Lachlan Shire Council, if there is a discrepancy between the Upper Lachlan Shire Council's desires for the direction of funding and that of the Committee this will be referred back to the Committee for further discussion and resolution.

Is the information in my application protected?

The *Privacy and Personal Information Protection Act* 1998 applies to information that is provided to the Committee. Personal information provided in the application form will be used for the purpose of administering the Community Fund only.

This information may be disclosed in response to an access request under the *Government Information (Public Access) Act 2009*, subject to applicable exceptions under the Act.

Once an application has been approved and funding issued, the recipient, project, amount funded and fiscal year will be a matter of public record.

How will I know if my application is successful?

All applications lodged will receive a response from the Committee, via email or post, advising of the success of their application. In addition, successful applications will be publicised through the Upper Lachlan Shire Council website, "The Voice" newsletter and any other media deemed applicable by the Upper Lachlan Shire Council. All applications are treated as public document s. Should applicants not want details or components of their application made public, this should be stated clearly within the application.

When an application has been approved the Committee will make the necessary payment arrangements.

What if the project applied for changes once the funding has been approved?

If the scope of the project applied for changes applicants must request, in writing to the Committee, approval for changes. The scope of the program or project funding may only be adjusted with written approval from the Committee.

What happens if the actual costs are less than the approved funding?

If actual costs are less than the approved funding the applicant may;

1. Submit a written request to change the scope of the project, and if approved, apply the unexpended funds for this purpose.
2. Send a cheque, made payable to the Community Fund, for the remaining unexpended funds once the final amount has been confirmed by the Committee. Repayments must be submitted to the Community Fund.

How will the money be managed?

Funds will be held and distributed by the Upper Lachlan Shire Council who will carry any risks and liabilities associated with the distribution of this funding. The awarded funds will be distributed as agreed with the successful applicant(s) and managed through Upper Lachlan Shire Council.

The fund will be managed through an External Restricted Reserve Fund account in accordance with the usual Operational Plan processes for preparing a budget and priority projects (this includes community consultation). Upper Lachlan Shire Council will provide services to manage the administration of the Community Fund.

The Upper Lachlan Shire Council will report to the [Insert Name] Directors and produce yearly reports on the distribution of funds and/or quarterly reports related to the External Restricted Reserve Fund. In addition, [Insert Name] will produce reports for distribution to the community outlining initiatives funded and delivered.

Independent Auditor

During each year in which there are funds in the Community Fund, the Upper Lachlan Shire Council must appoint an Auditor to reconcile:

- The Monetary Contributions paid by [Insert Name],
- Any payments made by the Upper Lachlan Shire Council; and
- Identify any corrective payments required.

[Insert Name] and the Upper Lachlan Shire Council must make any corrective payments identified by the Auditor as being necessary to reconcile the Community Fund. The cost of the Auditor will be paid out of the Community Fund. The Auditor must provide a report on its work undertaken in accordance with this clause within three months of completing that work.

Upper Lachlan Shire Council would undertake an annual review of the Community Fund. This would consider, among other things, drawdown of funds in the year to date, and anticipated drawdown in the next year.

4.3 PROJECT/PROGRAM REPORTING

What reporting is required for approved applications?

Reporting on completed projects is required to ensure that the target community and the Committee can be confident that allocated funds have been used effectively.

Standard templates will be provided to all successful applicants. Applicants must submit final reports using these templates. Funding recipients must permit a representative of the Community Fund to examine records relating to the expenditure of funds to determine if the grant has been properly spent.

When will the report on completed programs/projects be due?

Timing will be agreed at the application approval stage. Agreed project delivery timing will be decided upon on an individual project basis and will follow guidelines stipulated by the Committee

Can the final reporting date be extended?

Yes. If a project/program is not completed within the required timeframe the applicant may request, in writing, an extension. All extension requests must be submitted to the Community Fund.

5 COMMUNITY FEEDBACK

The CEP has been established to secure additional benefit to the community from the Project. Community input to the objectives and proposed administrative arrangements for the CEP will assist to make the fund accessible, relevant, trusted and supported by the community.

Signed for and behalf of

The Upper Lachlan Shire Council

Sign here: _____
Authorised Officer

Print Name: _____

Position: _____

In the presence of

Sign here: _____
Witness

Print Name: _____

Dated _____/_____/_____

Signed for and behalf of

XXXX Wind Farm Pty Ltd

Sign here: _____
Authorised Officer

Print Name: _____

Position: _____

In the presence of

Sign here: _____
Witness

Print Name: _____

Dated _____/_____/_____

Environmental Resources Management Australia Pty Ltd

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13 July, 2016

Nicole Brewer
NSW Department of Planning & Environment
via email: nicole.brewer@planning.nsw.gov.au

Our Reference: 0178462 Response to Information Request July 2016_Updated Offset Calculations_Final_v2

Attention: Nicole Brewer

Dear Nicole

RE: BIALA WIND FARM - REQUEST FOR FURTHER INFORMATION

I refer to the Department of Planning & Environment (DPE) request of 20 June 2016 to Newtricity, as the Proponent of the Biala Wind Farm Project (SSD 13_6039), requesting the following:

> *"Either:*
>
> - *confirmation that the offset calculations provided in Annex F of the EIS remain applicable for the worst case biodiversity impacts associated with the project; or*
> - *updated biodiversity offset calculations using the latest version of the Biobanking Credit Calculator"*

1. OFFSETS CALCULATIONS

ERM has revised and updated the offset calculations presented in the Environmental Impact Statement (EIS) to reflect changes that have occurred since then. These include revised vegetation mapping, updated online BioBanking Credit Calculator (BBCC) and very minor access track footprint change (through non-native pasture). Details are provided of the entry in the BBCC and any decision points or other relevant information regarding the credit output. Liaison was conducted with the Office of Environment and Heritage (OEH) BioBanking team regarding the BBCC entry.

1.1 PROPOSAL DETAILS

A new BBCC entry was established as Proposal ID: 128/2016/3738MP (version 2) named "Biala Wind Farm_3".

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1.2 VEGETATION ZONES AND ENDANGERED ECOLOGICAL COMMUNITIES (EECS)

The total native vegetation impact area in the footprint is 2.70 ha (not including planted native vegetation). The breakdown of these areas by Vegetation Zone and other land cover types are provided in *Table 1*.

Table 1 Summary of Vegetation Clearance in the Development Footprint

Plant Community Type (PCT)	*Condition Classes*	*Conservation Significance (TSC Act)*	*Area in Project Area (ha)*	*Area in Development Footprint (ha)*
Native Vegetation				
PCT ID 351: Brittle Gum – Board-leaved Peppermint – Red Stringy open forest in the north-western part (Yass to Orange) of South Eastern Highlands Bioregion	Mod_Good_Mod	-	260.39	0.67
	Mod_Good_Sparse	-	97.05	0.24
	Mod_Good_DNG[1]	-	92.92	1.11
PCT ID 1097: Ribbon Gum – Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion	Mod_Good_Mod	EEC	53.24	0.68
PCT ID 1100: Ribbon Gum – Snow Gum grassy forest on damp flats, eastern South Eastern Highlands Bioregion	Mod_Good_Mod	EEC	2.10	0.00
Sub-total Native Vegetation (not including planted native vegetation)			**505.7**	**2.70**
Planted native vegetation	-	-	3.60	0.30
Sub-total Native Vegetation			**509.30**	**3.00**
Non-native Vegetation				
Non-native pastures and other land cover types	-	-	1420.35	39.52
Total (ha)			**1929.65**	**42.52**
1. DNG = Derived Native Grassland				

Additional roadside vegetation south of the northern access point, located within the road reserve, may be cleared (pending Council, detailed design and road engineering negotiations) and an area estimate (measured at 0.37 ha) has been added to cover that situation. The additional area is 0.37 ha of 1097_MG-M which changes the development footprint for that Vegetation Zone from 0.68 ha to 1.05 ha.

Consistent with the BBAM (2009) any Vegetation Zone <0.25 must be merged into the nearest (or most similar) Vegetation Zone. Furthermore, planted native vegetation is not a relevant Vegetation Zone and has been discarded from the BBCC entry.

Table 2 shows the vegetation zones inserted into the BBCC based on the discussion above.

Table 2 Vegetation Zones Entered into the BBCC

Vegetation Zone from Ecological Impact Assessment	**Area (ha)**	**Vegetation Zone Input to BBCC**	**Area (ha)**
1097_MG-M: Ribbon Gum – Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion_Mod-Good_Mod	0.68 (Development Footprint) + 0.37 (allowance for northern access road)	PCT ID 1097: Ribbon Gum – Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion_Mod-Good_Mod	1.05
351_MG-M: Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion_Mod-Good_Mod	0.67	351_MG-Sparse: Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion_Mod-Good_Mod	0.91
351_MG-Sparse: Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion_Mod-Good_Sparse	0.24		
351_MG-DNG Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion_Mod-Good_DNG	1.11	351_MG-DNG Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion_Mod-Good_DNG	1.11
		Total input to BBCC	**3.07**

The identification and distribution of EECs in the PA was the subject of detailed investigation during the DPE assessment process. These were resolved in communication with DPE during the latter part of 2015 and early part of 2016. PCT ID 1097 was identified by ERM as the EEC: *Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South Western Slopes Bioregions* (TGW EEC). PCT ID 1097 was not selectable as TGW EEC and was set at default as Tablelands Basalt Forest EEC (TBF EEC). All communication on the EEC issue from DPE (including OEH) concurred with ERM's assessment of the EEC as TGW rather than TBF. This is not changeable in the BBCC, although as all EECs are designated the offset multiplier of 3, the error is immaterial.

1.3 THREATENED SPECIES

The OEH BioBanking Team were consulted in preparing this current credit calculation. All threatened species relevant to this assessment are ecosystem credit species so none were added as species credits. That there are now no listed species credits required differs from the calculations detailed in Annex F of the EIS because at that time a list of species credits were reported in the credit profile for two reasons:

- the BBCC was showing zero 'predicted' threatened species which identified a potential erroneous dataset reference link within the BBCC. Annex F of the EIS highlighted this potential error and stated that OEH consultation would be required to resolve the issue. In the absence of any predicted threatened species, no reference could be made to whether the threatened species identified in the assessment were species credit species (requiring species credits) or ecosystem credit species (assumed present and impacts offset by vegetation type). Therefore, in accordance with the BBAM, all threatened species not listed as 'predicted' were input as species credits. The error may have caused the false presentation of ecosystem credit species as species credits because there is no automated mechanism in the BBCC to detect and prevent an erroneously entered ecosystem credit species as a species credit species. The resultant credit profile report will show species credits being required for species that are not species credit species but are ecosystem credit species (which would then eventuate in a credit profile being required that could not possibly be achieved i.e. purchase of species credits would be required for species that are ecosystem species, in which case the transaction is impossible); and

- some species that were at that time species credit species may have been changed to ecosystem credit species in the BBCC and BBAM revisions since the EIS was written.

1.4 CREDIT REQUIREMENTS

Ecosystem Credits

Table 3 shows the credit profile of the impact area and the credits required to offset the impacts. The ecosystem credits can be sourced from the BVTs/PCTs in the Crookwell/Lachlan Interim Biogeographic Regionalisation for Australia (IBRA) subregion or any adjoining IBRA subregion.

The full and final credit reports are attached in *Annex A*.

Table 3 *Ecosystem Credits Required to Offset the Project*

PCT ID	PCT	Area (ha)	Credits Created	Vegetation Zones Offset Options
1097	Ribbon Gum - Narrow leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion	1.05	41	Ribbon Gum - Narrow leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion, (LA261)
351	Brittle Gum - Broad leaved Peppermint - Red Stringybark open forest in the north western part (Yass to Orange) of the South Eastern Highlands Bioregion	2.02	44	Brittle Gum - Broad leaved Peppermint Red Stringybark open forest in the north western part (Yass to Orange) of the South Eastern Highlands Bioregion, (LA234) Apple Box - Broad leaved Peppermint dry open forest of the South Eastern Highlands Bioregion, (LA101) Apple Box - Yellow Box - Argyle Apple dry open forest of the South Eastern Highlands Bioregion and NSW South Western Slopes Bioregion, (LA102) Blakely's Red Gum - Red Stringybark open forest on slopes and hills of the western slopes, (LA117) Broad leaved Peppermint - Brittle Gum - Red Stringybark dry open forest on the South Eastern Highlands Bioregion, (LA124) Broad leaved Peppermint - Mountain Gum dry open forest of the Central Tablelands area of the South Eastern Highlands Bioregion, (LA125) Mugga Ironbark - Red Stringybark - Long leaved Box dry grass forest of the NSW South Western Slopes Bioregion, (LA167) Inland Scribbly Gum - Red Stringybark open forest on hills composed of silicous substrates in the mid-Murrumbidgee and upper Lachlan catchments mainly in the western South Eastern Highlands Bioregion, (LA242) Red Stringybark - Blakely's Red Gum hillslope open forest on meta-sediments in the Yass - Boorowa - Crookwell region of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion, (LA255)
Total		3.07	85	

2. CLOSE

I trust this satisfies your requirements. Should you have any additional queries, please contact the undersigned on 02 4903 5500.

Kind Regards,
for Environmental Resources Management Australia Pty Ltd

Matthew Flower
Senior Ecologist and Accredited BioBanking Assessor'

Clare Burnes
Project Manager

Murray Curtis
Partner

Attachments:
Annex A BBCC Reports

Annex A

BBCC REPORTS

BioBanking Credit Calculator

Ecosystem credits

Office of Environment & Heritage

Proposal ID :	128/2016/3738MP
Proposal name :	Biala Wind Farm_3
Assessor name :	Matthew Flower
Assessor accreditation number :	128
Tool version :	v4.0
Report created :	11/07/2016 13:33

Assessment circle name	Landscape score	Vegetation zone name	Vegetation type name	Condition	Red flag status	Management zone name	Management zone area	Current site value	Future site value	Loss in site value	Credit required for bio diversity	Credit required for TS	TS with highest credit requirement	Average species loss	Species TG Value	Final credit requirement for management zone
550m_1	8.80	LA261_Moderate/Good_Medium	Ribbon Gum - Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion	Moderate/Good_Medium	Yes	1A	1.05	47.83	0.00	47.83	41	41	Powerful Owl	16.67	3.00	41
550m_1	8.80	LA234_Moderate/Good_Derived grassland	Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion	Moderate/Good_Derived grassland	Yes	2A	1.11	11.46	0.00	11.46	0	12	Powerful Owl	11.11	3.00	0
550m_1	8.80	LA234_Moderate/Good_Medium	Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion	Moderate/Good_Medium	Yes	3A	0.91	52.60	0.00	52.60	0	44	Powerful Owl	61.11	3.00	44

BioBanking Credit Calculator

Species credits

Office of Environment & Heritage

Proposal ID :

Proposal name :

Assessor name :

Assessor accreditation number :

Tool version : v4.0

Report created : 11/07/2016 13:33

Scientific name	Common name	Species TG value	Identified population?	Can Id. popn. be offset?	Area / number of loss	Negligible loss	Red flag status	Number of credits
			No					

Biodiversity credit report

This report identifies the number and type of biodiversity credits required for a major project.

Date of report: 11/07/2016 Time: 1:34:38PM Calculator version: v4.0

Major Project details

Proposal ID:	128/2016/3738MP
Proposal name:	Biala Wind Farm_3
Proposal address:	Biala Crookwell NSW 2583
Proponent name:	Newtricity
Proponent address:	1 Raven St Gladesville NSW 2110
Proponent phone:	99999999
Assessor name:	Matthew Flower
ssessor address:	53 Bonville Avenue THORNTON NSW 2322
Assessor phone:	02 4964 2150
Assessor accreditation:	128

Summary of ecosystem credits required

Plant Community type	Area (ha)	Credits created
Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion	2.02	44.00
Ribbon Gum - Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion	1.05	41.00
Total	3.07	85

Credit profiles

1. Ribbon Gum - Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion, (LA261)

Number of ecosystem credits created	41
IBRA sub-region	Crookwell - Lachlan

Offset options - Plant Community types	Offset options - IBRA sub-regions
Ribbon Gum - Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion, (LA261)	Crookwell - Lachlan and any IBRA subregion that adjoins the IBRA subregion in which the development occurs

2. Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion, (LA234)

Number of ecosystem credits created	44
IBRA sub-region	Crookwell - Lachlan

Offset options - Plant Community types	Offset options - IBRA sub-regions
Brittle Gum - Broad-leaved Peppermint - Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion, (LA234) Apple Box - Broad-leaved Peppermint dry open forest of the South Eastern Highlands Bioregion, (LA101) Apple Box - Yellow Box - Argyle Apple dry open forest of the South Eastern Highlands Bioregion and NSW South Western Slopes Bioregion, (LA102) Blakely's Red Gum - Red Stringybark open forest on slopes and hills of the western slopes, (LA117) Broad-leaved Peppermint - Brittle Gum - Red Stringybark dry open forest on the South Eastern Highlands Bioregion, (LA124) Broad-leaved Peppermint - Mountain Gum dry open forest of the Central Tablelands area of the South Eastern Highlands Bioregion, (LA125) Mugga Ironbark - Red Stringybark - Long-leaved Box dry grass forest of the NSW South Western Slopes Bioregion, (LA167) Inland Scribbly Gum - Red Stringybark open forest on hills composed of silicous substrates in the mid-Murrumbidgee and upper Lachlan catchments mainly in the western South Eastern Highlands Bioregion, (LA242) Red Stringybark - Blakely's Red Gum hillslope open forest on meta-sediments in the Yass - Boorowa - Crookwell region of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion, (LA255)	Crookwell - Lachlan and any IBRA subregion that adjoins the IBRA subregion in which the development occurs

Summary of species credits required