

18 February 2019

Tim Stuckey, Senior Planner
Department of Planning and Environment
320 Pitt Street Sydney, NSW 2000

Dear Tim,

MP10_160 Mod 6 White Rock Wind Farm (WRWF) - Further Information

The following letter consolidates and provides responses to questions asked by the DPE over the course of several emails.

1. In addition to the previous information requests, could you please confirm whether the following land parcels are included in the proposed project boundary:

- 143/DP753260 • 1//DP1226333
- 140/DP753260 • 113/DP753260
- 42/DP753260

None of these lots are now included in the Project Boundary as they are not directly impacted by the construction of the project. The updated Project Boundary is shown in Figure 1.1 of the Mod 6 EA (page 16) and excludes the Lots listed above.

2. Can you confirm there would be no clearing required as a result of the proposed haulage route upgrades?

It is not possible to categorically confirm that there would be no clearing required as a result of the proposed haulage route. If any additional clearing was required along the length of the transport route between Newcastle and the Project Area, further local approval would be sought for the route upgrade works and where necessary, vegetation clearing assessed. The route analysis to date shows that the transport route is feasible but actual deliveries will need to be preceded by contractor and equipment selection and further road authority consultation.

Factors which may influence the level of clearing include:

- Blade Length – as we are considering a maximum blade length up to 85m (82m assessed for route survey) and may have use shorter blades, the level of vegetation clearing will vary accordingly;
- Haulage Contractor – once the contractor is appointed, a further assessment of the route will be undertaken by the contractor who will be able to advise on required upgrades and the potential impact on roadside/nearby vegetation. This will be influenced by the type of trailer to be used; and
- Haulage Route – the appointed contractor or road authority may propose or require variations to the route based on their own assessment/knowledge and which alters or reduces the vegetation clearing impacts.

Consultation on the route will be undertaken with the RMS, Local Councils and Private Landowners once the specific details are known and further approvals may be sought for road upgrade works, including vegetation clearance, as appropriate.

3. On the topic of vegetation clearing, can you confirm/differentiate the clearing required for the proposed Stage 2 modification (larger turbines) versus the clearing required for the approved Stage 2 turbines (that was originally underestimated). This breakdown does not appear to be in the EA or BAR.

It is not possible to provide a meaningful native vegetation clearing breakdown of the form that you are seeking for individual Stage 1 and Stage 2 impacts in respect of the original WRWF application (2011) and for the current Mod 6 Application (2017) that relates to a modified Stage 2 only.

The inability to compare clearing estimates for the original 2011 vegetation assessment and the current Mod 6 Stage 2 (2017) vegetation assessment is due to the changed basis for mapping and different assessment methodologies in 2011 and 2017. The different mapping and assessment processes were accepted by OEH at different points in time as follows.

- The initial mapping basis was accepted by OEH for the purposes of the Project Approval (2012), Mod 3 (Stage 1) (2015) and Mod 4 in 2016 (Alternate Grid Connection and variation to Condition C1 – increased clearing limit). OEH allowed use of the original assessment methodology for Mod 3 and 4 as it was the basis on which the Project Approval was granted.
- However, for the Mod 6 application, OEH no longer accepted the original methodology and mandated that, for Stage 2, a Biodiversity Assessment Report (BAR), assess the additional native vegetation clearing required for the Mod 6, in accordance with the NSW Framework for Biodiversity Assessment (FBA) for Major Projects.
- The vegetation clearing assessment for Mod 6 (Stage 2) assessment results in much more of the project footprint impacting native vegetation than would have been the case under the original assessment methodology. This is the primary reason for the increased vegetation allowance needing to be sought for WRWF Stage 2, under the Mod 6 Application.

Table 1 below summarises the assessment timeline (from 2011 application to the Mod 6 application) and outlines the different basis for vegetation assessments that is the principal factor that contributes to the increased quantum for vegetation clearance for WRWF, necessitating an increase in the WRWF Condition C1 clearing limit to enable the modified Stage 2 development.

Table 1 – Overview of Vegetation Assessments and Different Methodologies (2011 to 2018)

Assessment timing	Components	Overview of Vegetation Assessment	Status in respect of vegetation clearing assessment
Original 2011 By RPS	All infrastructure 119 turbines	EECs under NSW TSC Act TECs under EPBC Act Scattered trees	Original mapping for Project Approval based on threatened vegetation communities and scattered trees.
Mod 3 – 2015 By RPS	Stage 1 70 turbines	EECs under NSW TSC Act TECs under EPBC Act Habitat features	Process consistent with 2011 but improved mapping for pre-clearing and Stage 1 construction
Mod 4 – 2016 By ELA	Vary Cond C1	Reconciliation of vegetation impact	As per RPS vegetation mapping in relation to defined impact areas.
Mod 6 – 2017 By NGH	Stage 2 48 turbines	Biodiversity Assessment Report under the Framework for Biodiversity Assessment	Detailed assessment process – previous exotic areas now captured as native vegetation

Additional to the consequence of the changed methodology required by OEH for Stage 2, the mapping available from the original application does not extend to all parts of the modified Stage 2 layout and hence it is not possible to assess vegetation clearing for all Stage 2 infrastructure in respect of the original methodology without undertaking further mapping with 2011 methodology.

Improved engineering design that is available for Stage 2 (Mod 6) has the benefits of realistic design which considers terrain and cut and fill components and increases the reliability of the impact assessment. The more realistic design does contribute to an increase in the impact, but the changed vegetation assessment methodology is considered as being the principal contributor to the overall increase.

The original 2011 EA assessed native vegetation clearance at 22.5 hectares, based on the assessment methodology for determining ecological impacts at that time. It was apparent during the pre-construction design phase of Stage 1 that this limit would only be satisfactory to account for the vegetation clearance required for Stage 1 alone.

During construction of Stage 1 and after significant works had occurred, WRWFPL reviewed actual vegetation impacts and requested an increase in the vegetation clearance limit to 28 hectares, primarily in the context of Stage 1 impacts. DPE approved a variation of Condition C1 in conjunction with the Mod 4 application which addressed the alternate grid connection and included a minor additional vegetation impact for the alternate 132kV overhead power line. The actual clearance for the completed Stage 1 is 26.5 hectares based on the 2011 assessment method. If Stage 1 had been assessed under the method applied for Mod 6, the vegetation clearance would have been greater. That was not done as OEH accepted the 2011 assessment basis for Stage 1 (Mod 4 OEH Response 2017 as shown in Attachment B).

3.1 Supporting information to demonstrate impact of changed assessment methodology

Attachment 1, Figures 1 and 2 provide a comparison of the different methodologies (2011 and 2017) for vegetation mapping and vegetation clearance assessments.

- Figure 1 shows a section of the approved Stage 2 design and vegetation assessment undertaken as part of the original EA in 2011. Only part of the infrastructure impacts the mapped native vegetation. It is evident that the land has been extensively cleared and 2011 ecological assessments indicated that ground cover includes significant exotic component.
- Figure 2 shows the same Stage 2 section with updated design and vegetation assessment (2017 methodology) being considered as part of Mod 6 in 2018. All the WRWF infrastructure is indicated as affecting native vegetation.

It is readily apparent that extensive cleared areas (Figure 1) were not captured as ecological impacts by the 2011 assessment differing from the assessment based on 2017 mapping (Figure 2).

It would not be possible for WRWF to construct the approved Stage 2 layout, even unmodified and with turbines removed, without seeking a further increase in the native vegetation clearance limit.

3.2 Request to vary Condition C1

Based on the above, an increase in the Clearance Limit in Condition C1 is therefore sought.

However, the clearance quantities for Stage 1 and Stage 2 are from different assessment methods and combining these as one number in Condition C1 may not be appropriate. Given that Stage 1 is

complete, the wording of Condition C1 could be varied to address the Clearing for WRWF Stage 2 not exceed 62 hectares of Ribbon Gum – Mountain Gum - Snow Gum Grassy Forest /Woodland of the New England Tableland Bioregion EEC (as per BAR NGH December 2017).

4 Impact of blade length on vegetation clearance

In regards to your request to consider the impact of longer blades on vegetation clearance, the impact assessment has considered the issue of storing and installing longer blades on the surrounding vegetation.

When storing the blades on the wind farm prior to installation, there is unlikely to be additional clearing required due to longer blade lengths because:

- The proposed hardstand size of 80 m by 50 m can accommodate longer blades with minimal overhang, most likely over cleared construction cut-and-fill areas;
- Blades could be elevated off the ground to ensure any overhang does not increase impacts, particularly where the hardstand has cut into the landform;
- Blades could be stored at a slight angle on the hardstand, reducing/removing the need for blades to overhang the hardstand; and
- Blade laydown and installation can be staggered from turbine to turbine to minimise the need to store blades with other turbine components on each hardstand to remove storage limitations.

The Mod 6 impact assessment footprint has included an indicative impact area for the assembly of the blades and rotor on the ground. This assumes total vegetation clearance, but in certain locations this will be minimised or removed because:

- Blades will extend over existing cleared areas, such as hardstand, cut and fill and access tracks requiring no additional clearing;
- Blades will extend over native grass or pasture and only require the placement of temporary supports, resulting in temporary disturbance rather than clearing;
- Blades extending into treed areas may only require trees to be trimmed or no clearing at all due to the slope of the terrain away from the hardstand; and
- Blades could potentially be installed on each turbine one at a time, as opposed to assembling the rotor on the ground, removing the need for any vegetation clearance due to blade overhang. This option will be considered during the pre-construction phase.

Overall there is minimal difference between the shorter 60 m blade compared to blades up to 82 m in length.

If you have any questions or require further information, please do not hesitate to contact me.

Regards,



Adrian Maddocks

Development Manager

Attachment A – Comparison of different vegetation mapping for 2011 and 2017 assessments



Figure 1 – Map showing approved 2012 WRWF EA design and vegetation mapping (2011)



Figure 2 – Map showing WRWF Mod 6 EA design and vegetation mapping (2017)