

Gideon Roux
GPG Renewable Development Engineer
Suite 4, Level 3, 24 Marcus Clarke Street
Canberra, ACT 2600

11 December 2020

By email: gideon.roux@globalpower-generation.com.au

Dear Gideon,

Hawkesdale Wind Farm on-site substation facility screen planting removal

Further to a request from ERM Pty Ltd (email 30 October 2020), we have undertaken a review of the approved Hawkesdale Wind Farm project with specific regard to screen planting surrounding the on-site wind farm substation facility in accordance with the Amended Planning Permit.

Condition 4 of the Hawkesdale Wind Farm Amended Planning Permits states:

Before the development starts, an on-site landscape plan to the satisfaction of the Minister for Planning must be submitted to and approved by the Minister for Planning. When approved, the plan will be endorsed and will then form part of this permit. The plan must show:

- (a) landscaping to screen the onsite and offsite substation and switchyard, and associated buildings other than the turbines;*
- (b) details of plant species proposed to be used in the landscaping, including height and spread at maturity;*
- (c) a timetable for implementation of all landscaping works; and*
- (d) a maintenance and monitoring program.*

An on-site landscaping plan was prepared by ERM Pty Ltd (Landscaping Management Plan, ERM Pty Ltd 17 February 2012) and endorsed by the Minister for Planning. We have reviewed the Landscaping Management Plan (LMP) and note the provision of evergreen trees and large shrubs planted in mixed groupings adjacent to, and within, the on-site substation facility. The potential height of proposed tree and shrub planting ranges from 1.4m to 20m.

Following the LMP preparation and endorsement we understand the LMP is not consistent with the Bushfire Emergency Response Plan which states 'Grass will be no more than 100mm in height and leaf litter no more than 10mm deep for a distance of 30m around constructed buildings and viewing platform'. The Bushfire Emergency Response Plan therefore prohibits tree and shrub planting within 30m of the on-site substation facility.

We understand the requirement for a 30m wide asset protection zone around the substation facility will not allow for the installation of screen planting due to the area of the substation footprint and the availability of land beyond the asset protection zone to be utilised for screen planting. This being the case, we note your

request for a professional opinion as to the potential extent and magnitude of visual impacts on surrounding view locations without the installation of screen planting to the substation/switchyard facility.

We confirm that our review of potential visual impacts through removal of screen planting to the substation facility has included a review of the:

- Hawkesdale Wind Farm Amended Planning Permit 21 December 2017 and
- Hawkesdale Wind Farm Endorsed Landscaping Management Plan 17 February 2012.

We also confirm that we have undertaken several site inspections for a neighbouring wind farm project and are familiar with the Hawkesdale Wind Farm project and the landscape within, and surrounding, the project site.

Following a review of the above documentation and a desk top review of aerial imagery we can confirm that in our professional opinion, the deletion of screen planting to the approved substation facility will not result in any change to the significance of visual impacts associated with the substation facility. The lack of change is primarily due to several key issues which include:

- the extremely low number of key sensitive view locations within proximity (3km) to the substation facility
- the view distance between key sensitive view locations and the substation facility
- existing landscape characteristics visually absorbing the substation facility and
- the visual context of the substation facility relative to wind turbine structures.

There are six non-involved dwellings within 3km of the on-site substation facility, the closest at around 1.2km to the south west of the Woolsthorpe Heywood Road. All six dwellings have existing screen planting and/or windbreak trees beyond the dwellings that are likely to provide some high degree of visual mitigation. The substation facility will not be visible from the Hawkesdale township or visible from the majority of dwellings beyond 3km of the substation facility due to the extent and locality of existing tree screening and windbreak planting.

Indirect views would also extend north to north east from a short section of the Woolsthorpe Heywood Road toward the substation site; however, views toward the substation facility would be largely obscured by intermittent roadside vegetation and tree windbreak planting within the wind farm site. Views toward the substation facility from the Woolsthorpe Heywood Road would be transitory and short term.

The distance between key sensitive view locations and the substation facility (between 1.2km and 3km) would result in the overall visual magnitude of the substation facility being moderate to low. The facility would not

occupy a significant proportion of the viewshed (if visible) from key sensitive view locations and the overall scale of the facility structures would be small and relative to other built structures visible in the landscape.

The landscape surrounding the on-site substation facility exhibits characteristics that tend to absorb small to moderate constructed elements. These characteristics include wind break tree planting to field boundaries that tends to reduce the opportunity to obtain extended views across the wind farm site. Views toward smaller constructed elements of the wind farm, such as the on-site substation facility have greater potential to be screened by existing landscape characteristics.

The substation facility will be viewed within the visual context of surrounding wind turbines extending beyond the facility and across the project site. The substation facility will not form a dominant visual element within this context and would tend to be visually recessive in scale and colour compared to the turbine structures.

In consideration of the above, it is unlikely that the removal of screen planting to the boundary of the substation facility (in accordance with the endorsed Landscaping Management Plan) will result in any significant degree of visibility or resultant visual impacts to surrounding key significant view locations.

We confirm that Andrew Homewood, Director and Principal Landscape Architect of Green Bean Design is an appropriately qualified expert in landscape and visual impact assessment. Andrew holds a Bachelor of Science (Dual Honours) Degree in Landscape Design and Archaeology and a Graduate Diploma in Landscape Management and has over 30 years' experience in landscape consulting. Andrew has prepared landscape and visual impact assessments for over 40 renewable energy projects including wind farms across Victoria. Andrew has also been engaged to undertake wind farm peer reviews in Victoria and New South Wales.

If you require any further information in relation to this review, then please do not hesitate to contact us.

Yours sincerely,



Registered Landscape Architect, AILA, MEIANZ

Green Bean Design Pty Ltd

ABN: 86 603 575 702

Principal: Andrew Homewood Grad Dip LM, BSc (Dual Hons) Landscape Design and Archaeology, National Dip Hort.

PO BOX 3178, AUSTRAL, NSW 2179