

What are the main impacts of the tip height increase?

Vegetation

A small amount of native vegetation is required to be removed at the site entrance to accommodate the turning circles of the larger trucks necessary to deliver the larger blades. The project will result in the removal of 0.025 hectares of remnant patches of native vegetation which will be offset under the “Guidelines for the removal, destruction, or lopping of native vegetation” (Guidelines) (DELWP 2017a).

Landscape and Visual impacts

An updated analysis by XUrban makes the following key observations:

- The increased turbine height will result in the extension of the viewshed from 17km to 23km.
- The original Landscape Visual assessment determined that based on a wind turbine height of 150m the most impact occurred out to a distance of approximately 4km. It is within this area that BayWa r.e propose to offer landscape mitigation for properties.
- The change in Seen Area Analysis for a turbine height of 150m to 200m is difficult to discern and is minimal.
- The visual impacts of the 200m turbine have been assessed from both the public and private realm using the same methodology as the approved project.
- Four locations from the public domain were selected for the comparative assessment. The change in visual impact in the closer locations is concluded to be one more of scale not of character nor, without the side by side comparison, one of impact.
- At the more distant locations, it is concluded that there is no significant alteration in the level of visual impact between the approved wind turbines and the proposed wind turbines. From all viewpoints the change is considered negligible.

The analysis concludes that the change can be appropriately absorbed in the landscape.

Fauna

The turbines height has increased so has the distance from the lower tip swept path and the ground from 24 m to 64 m. This means that the impact on bats and avifauna is likely to less due to the greater distance from the ground.

Shadow Flicker

The Shadow Flicker assessment which predicts the amount of shadow cast confirms that increase in height does not result in flicker at any residence near the 30 hours per annum maximum.

Noise

The updated noise assessment for the larger turbines demonstrates that the Ferguson Wind Farm and the proposed turbine layout achieve the noise criteria established by the permit and is expected to comply with the operational noise requirements. The results of the assessment demonstrate that the predicted noise levels are at least 5 dB below the allowed minimum limit of 40 dB at all assessed receiver locations.

Aeronautical Assessment

An assessment of the higher turbines has been undertaken and found that there will be no change in impact to the original turbines proposed.

Electromagnetic interference

BayWa has analysed the potential for electromagnetic interference from the project. In practice, there are two services that have proven to be affected by wind farm developments, namely television broadcasting and microwave links. The amended tip height will not impact on either of these services

All these findings are supported by expert assessments lodged with our application for amendment.