Objecting Submission to State Significant Development

Project Number SSD-10315, Bowmans Creek Wind Farm

10 May 2021

This submission sets out the unacceptable impacts of the proposed development.

Development impacts

1. The construction and use of the wind farm will unnecessarily destroy productive agricultural land, at a time when food security is vital. The impact of 80km of access track on the surrounding farmland cannot be minimised. Clearing this amount of vegetation will increase the risk for severe erosion in the area, creating a safety risk for residents, their stock and their livelihoods in the process. The further work necessary to develop an underground section of 330kV transmission line will severely impact Hebden Road.

2. Considering the images 'Plate 3' (page 29), image 'Plate 4' (page 30) and image 'Plate 8' (page 32) of the 02 APP H Visual Assessment report, it is clear that there will be a significant impact on the surrounding land, specifically in relation to land clearing, loss of livestock feed and space, noise, increased road traffic, dust and increased air pollution. It will not be possible to implement substation facilities as shown in the abovenamed images without unacceptable impacts.

Visual impacts

3. Table 9-1 (page 74) in the 02 APP H Visual Assessment Report indicates that '*turbines may be visually apparent and could become a major element in the landscape'* (page 75). It goes on to note that '*The Bulletin notes that in a Moderate Scenic Quality Class, wind energy projects should not cause significant modification of the visual catchment'* and that this is an objective of the project.

4. The 02 APP H Visual Assessment Report indicates that there will be four rural dwellings which will not experience views of the turbines (Table 9-19, page 145; Table 9-27, page 177; Table 9-39, page 225; Table 9-40, page 228). This means that 90% of the rural dwellings considered will be impacted visually by the project. This is not acceptable and means that the turbines will comprise a major element in the landscape in contravention of the objectives.

5. Table 9-7 at page 101 of the 02 APP H Visual Assessment Report states that '*the wind turbines (and specifically turbines 60 and 61) will be visually apparent and become a major element in the landscape'*. It goes on to say that mitigation and management options are '*Proponent to offer neighbour agreement and screening (below the black line) to the landowner. Without a neighbour agreement consider removal of wind turbines 60 and 61*.' (page 101). This indicates that it is not possible to implement the proposed project without significant visual impact to residents.

6. Table 9-10 at page 111, Table 9-11 at page 116, Table 9-14 of the 02 APP H Visual Assessment Report states that '*The dwelling and curtilage lacks any significant tree cover therefore views toward wind turbines would be open and direct*.' It is difficult to comprehend how this can be congruent with the following statement that '*The wind turbines will not become a major*

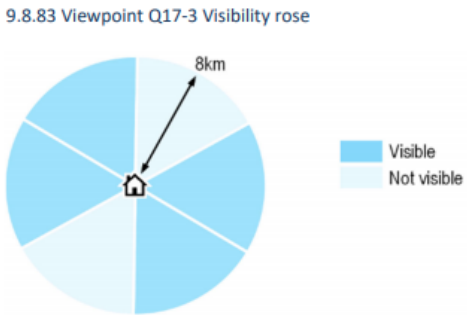
element in the landscape from this view location.' Mitigation options include '*spot planting of specimen trees'* which *'**may** provide **some potential** for screening/filtering of views toward turbines'* (emphasis added) (page 117). This is not sufficient to conclude that there will be no impact on relevant residents, or that appropriate mitigation is available.

7. Table 9-12 at page 119 of the 02 APP H Visual Assessment Report states that '*The extent of wind turbine visibility is not considered to require mitigation or management option at this dwelling. This will be confirmed post construction*.' Confirming the impact on residents 'post-construction' is not appropriate. Page 24 of the SEARs and Wind Energy Visual Assessment Bulletin states that '*where significant impacts are predicted to occur, it is a possibility that the Department will recommend that these turbines be re-sited, or removed from the proposal, or only be recommended for approval if appropriate mitigation or management measures are in place*.' The appropriate mitigation and management measures cannot be said to have been considered prior to the project's implementation, when the impacts can only be considered post-construction. By that time, it is too late for those impacted to be made fully aware of the potential consequences.

8. Table 9-14 at page 125 of the 02 APP H Visual Assessment Report states in relation to 'Landscape Scenic Integrity' that '*Overall wind turbine visibility will not cause any significant modification to the visual catchment*.' The sentence immediately following, in the same box, reads '*The wind turbines will be visually apparent and become a major element in the landscape*.' It is not possible to read those two sentences together and understand how turbines that are a '*major element in the landscape'* will '*not cause any significant modification to the visual catchment*'.

9. Table 9-26 at page 173 of the 02 APP H Visual Assessment Report states that '*Without a neighbour agreement the removal of turbines 22 and 23 has the potential to mitigate visual impacts to an acceptable level*'. This indicates that it is not possible to implement the project whilst maintaining visual impacts at an acceptable level without, at the very least, some significant downsizing of the turbine numbers.

10. Table 9-28 at page 180 of the 02 APP H Visual Assessment Report states that '*Wind turbines within four 60-degree sectors are not considered to dominate the available viewshed*.' However, when considering the included diagram of the visibility from the rural dwelling (Image 9.8.83 at page 179, reproduced below), it is evident that at least 60% of the dwelling's visibility will be impacted by the turbines, specifically 26 turbines between the blue line and black line. The project does not offer any mitigation options, instead stating that '*Tree cover and a gently undulating landform to the south east of dwelling Q17-1 **may** provide **some degree** of filtering views toward **some** wind turbines'* (emphasis added). This indicates that the existing tree cover and landform is unlikely to provide any realistic filtering of views, and if it does so, it will not filter all turbines from view. It is not clear how this fulfils the stated objective of '*manage impacts as far as practicable'*, when no practical management options have been considered.



11. Table 9-30 at page 188 of the 02 APP H Visual Assessment Report states that '*Without a neighbour agreement the removal of up to 2 wind turbines 9 and 10, and relocation of wind turbine 8 has the **potential** to mitigate visual impacts to an acceptable level*' (emphasis added). It is evident that should the project proceed as planned, consideration solely of the visual impacts indicates that the project will not meet acceptable levels.

12. Table 9-42 at page 234 of the 02 APP H Visual Assessment Report summarises the performance objectives. It indicates that turbines 9, 10, 60 and 61 need to be removed and that turbine 8 should be relocated in order to fulfil the performance objectives. As it stands, the project in its current form cannot appropriately fulfil the performance objectives and should not proceed without significant modification.

Noise impact

13. A 2012 report by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) entitled 'Exploring community acceptance of rural wind farms in Australia: a snapshot' indicated that the 'van den Berg effect' has been raised as a concern for Australian wind farms, and has been accepted in a NSW judgement that it is 'reasonably possible' that it may also occur in the Australian context (page 37). This effect is described as a 'thumping' noise which occurs on some cold, still, winter nights, owing to a temperature inversion between the extremes of rotor tip extension (page 36). The report comments that this effect appears 'to have been underestimated in previous extrapolations of daytime measurement data' (page 36). It is not clear from the 03 APP I Noise and Vibration Assessment whether this effect has been taken into account.

Property value impact

14. The 09 APP O Economics Assessment at page 22 relies heavily upon the literature review by Urbis (2016), which states that "*In our professional opinion, appropriately located windfarms within rural areas, removed from higher density residential areas, are unlikely to have a measurable negative impact on surrounding land values*." However, the same literature review also found at page 20 that impacts of wind farms which may affect property values are proximity to residential dwellings (including issues surrounding noise, shadow flicker and close visual impacts), proximity to higher density populations, and community uncertainty.

15. This project contains all three characteristics. Many dwellings are located within 3km of a potential turbine location. The project is located 10km from the higher density population of Muswellbrook. It is clear from the submissions objecting to this project that community uncertainty regarding the proposed wind turbines is high.

16. The 09 APP O Economics Assessment states at page 3 that '*While there will be a minor loss of agricultural activity to the region, this is a private economic decision made by the landholders for which they are compensated*.' This is not correct. The decision has not been made as a private economic decision by each landholder – it has been imposed on them by the project. Should particular landholders decide not to participate in hosting a turbine and obtaining rental income, there will be no economic compensation but rather economic impact.

17. The 09 APP O Economics Assessment has concluded that the foregone revenue would be $58,000 per annum (page 21). The Assessment goes on to state that '*The agricultural impacts of the Project are less than 0.012% of agricultural activity in the region and hence are insignificant*.' The sum of $58,000 per annum may be insignificant to a proposed project of this scale, however it is not insignificant to the residents and landowners who are affected by that income loss. For them, it may be the difference between keeping their land and having to sell. This is not a situation in which the project landholders will be '*better-off than they were before*' (page 21).

18. The 09 APP O Economics Assessment states at page 24 that '*The proposed VPA would contribute a payment Muswellbrook Shire Council, Upper Hunter Shire Council and Singleton Shire Council that can then be directed to a range of community infrastructure needs and programs*.' However, critical information regarding this proposed payment is missing, namely the amount, the proposed use for the amount, and justification for whether the proposed amount will sufficiently account for the loss of revenue and impact on property value suffered by landowners and residents affected by the project.

Land Zoning

19. The Waitpinga (Victor Harbor) South Australia wind farm proposal was rejected in 2005 as it did not comply with the Mount Lofty Ranges Primary Production Area regulations for protection of farming, future food and fibre production.

20. The Muswellbrook Local Environmental Plan 2009 has zoned much of the land in question as RU1 Primary Production. The objectives of the RU1 Zone, as set out in the Land Use Table, are, *inter alia*:
    i. To encourage sustainable primary industry production by maintaining and enhancing the natural resource base;
    ii. To protect the agricultural potential of rural land;
    iii. To maintain the rural landscape character of the land in the long term;
    iv. To protect or conserve (or both)—
    (a) soil stability by controlling development in accordance with land capability, and
    (b) trees and other vegetation, and
    (c) water resources, water quality and wetland areas, and their catchments and buffer areas.

21. The Singleton Local Environmental Plan 2013 provides for similar objectives. It is not clear how the proposed wind farm project will be able to fulfil the Local Environment Plan zoning objectives.
22. Specifically, the project will not be able to encourage sustainable primary industry production, as it is destroying the natural resource base (land and livestock feed) rather than

enhancing it. For the same reason, the project is not protecting the agricultural potential of the land. The project does not maintain the rural landscape character of the land in the long term. The project does not protect or conserve soil stability, trees and vegetation, and water resources.

23. Noting the decision in Waitpinga, it is possible that the project will struggle to comply with the local regulations and will have great difficulty in obtaining land rezoning or appropriate regulatory approval.

Traffic impacts

24. The 05 APP K Traffic and Transport Assessment identifies Hebden Road (north and south) as the general access route for the project, to be used '*by all general construction vehicles (general light and heavy vehicles), operational traffic and decommissioning vehicles*.' (page 2). Furthermore, following on from Hebden Road, Scrumlo Road has been identified as Haulage Route 1 which will be used in the construction, operational and decommissioning phases and will provide access to the south-western portion of the Project Boundary.

25. The data obtained for the traffic profile of Hebden Road is now more than 3 years old (obtained in December 2017) (page 13). This cannot be said to provide an accurate traffic profile and so will form an inaccurate basis for the traffic and transport assessment. It was further identified in the 05 APP K Traffic and Transport Assessment that '*Crashes mostly occurred in close proximity to the New England Highway / Hebden Road and Hebden Road / Scrumlo Road intersections'* (page 15).

26. Assuming that the traffic data obtained in the 05 APP K Traffic and Transport Assessment is acceptable, Hebden Road South has been assessed at a total peak of 371 vehicles (Figure 2.4.3, page 13). During the construction period, the 05 APP K Traffic and Transport Assessment has assessed that there will be about 141 daily **one way** traffic movements, of which almost half will be heavy vehicles (page 25). When considered as two-way trips, the total traffic movements (282) will increase by 75%.

27. Considering the data set out in pages 30 and 31 of the 05 APP K Traffic and Transport Assessment, it is not clear that the project has been able to satisfactorily measure the intersection performance at the New England Highway/Hebden Road intersection right turn. The intersection performance results in Table 4-3 and Table 4-4 were '*not considered to reasonably reflect the performance of the intersection*' (page 31). As such, it cannot be said with confidence that '*the intersection is not detrimentally impacted by the addition of project construction traffic… and therefore would not require any upgrades'* (page 31), as the intersection has not been adequately measured.

28. It is clear that traffic impacts have not been satisfactorily considered, and will in fact have a greater impact on the existing infrastructure, and therefore on residents, than has been assessed. The project has not identified how it will maintain and manage the infrastructure in order to cope with a 75% traffic increase, or any reasonable steps to mitigate crash risk at the New England Highway/Hebden Road and Hebden Road/Scrumlo Road intersections.