

Notice of Modification

Section 75W of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning, I modify the project approval referred to in Schedule 1, subject to the conditions in Schedule 2.

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Executive Director
Resource Assessments and Business Systems

Sydney 13 OCTOBER 2015

SCHEDULE 1

The Project Approval for the Bodangora Wind Farm (MP10_0157) granted by the Minister for Planning on 30 August 2013.

SCHEDULE 2

1. Replace the description of the project in Schedule A with the following:

Project: Bodangora Wind Farm Project

2. In the table of DEFINITIONS of Schedule A, delete the definitions for "Associated receptor", "Department, the", "Director-General, the", "Director-General's Approval or the agreement or satisfaction of the Director-General", "EA", "EEC", "Minister, the", "Non-associated receptor" and "NOW", and insert the following in alphabetical order:

Decommissioning	The removal of wind turbines and any associated above ground infrastructure.
Department	Department of Planning and Environment
DPI – Water	Department of Primary Industries – Water
EA	<i>Bodangora Wind Farm Environmental Assessment</i> (Bodangora Wind Farm Pty Ltd, May 2012) as amended by: <ul style="list-style-type: none">• <i>Preferred Project Report</i> (Bodangora Wind Farm Pty Ltd, February 2013) and <i>Submissions Response Report</i> (Bodangora Wind Farm Pty Ltd, February 2013); and• Modification Application MOD 1, dated 1 September 2015 and accompanying Environmental Assessment
EEC	Endangered ecological community listed under the <i>Threatened Species Conservation Act 1995</i>
Minister	Minister for Planning
Non-associated residence	Any residence on privately-owned land where the landowner has not reached a financial or in kind agreement with the Proponent in relation to the project
OOHW	Out-of-hours work
Secretary	Secretary of the Department, or nominee

3. Delete all references to "Director-General" and replace with "Secretary".
4. Delete all references to "NOW" and replace with "DPI – Water".
5. Delete condition B1 and insert the following:

- B1. The Proponent shall carry out the project:
- (a) generally in accordance with the EA; and
 - (b) in accordance with the conditions of this approval.

Note: The general layout of the project is depicted in the figure in Appendix 1.

6. Delete condition B2 and insert the following:
- B2. In the event of an inconsistency between the documents referred to in condition B1, the most recent document shall prevail to the extent of any inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
7. In condition C6, after “The Program shall be prepared”, insert “in consultation with OEH”.
8. In condition C10, replace “sensitive receivers” with “non-associated residences”.
9. In condition C25, replace “non-associated receivers” with “non-associated residences”.
10. After condition D8, insert the following:
- D9. Within 3 years of the commencement of the operation of the project, or within 3 months of the submission of an:
- incident report under condition D6;
 - audit under condition D8; or
 - any modification to the conditions of this approval, the Proponent shall review, and if necessary revise, the strategies, plans and programs required under this approval to the satisfaction of the Secretary.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.

11. Delete condition E4 and insert the following:

Construction or Decommissioning Hours

E4. The Proponent shall only undertake construction or decommissioning activities between:

- 7:00am to 6:00pm Mondays to Fridays;
- 8:00am to 1:00pm Saturdays; and
- at no time on Sundays or NSW public holidays.

The following construction activities may be undertaken outside these hours:

- activities that are inaudible at any non-associated residence;
- activities approved under an out-of-hours (OOHW) work protocol (see condition E21(b)(vi));
- the delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or
- emergency work to avoid the loss of lives, property and/or prevent environmental harm.

12. Delete conditions E5 and E6.

13. Delete conditions E7 and E8 and insert the following:

E7. The Proponent shall only carry out blasting on site between 9am and 5pm Monday to Friday and 9am to 1pm Saturday. No blasting is allowed on Sundays or NSW public holidays.

E8. The Proponent shall ensure that any blasting carried out during construction of the project does not exceed the criteria in Table 1.

Table 1 – Blasting criteria

<i>Location</i>	<i>Airblast overpressure (dB(Lin Peak))</i>	<i>Ground vibration (mm/s)</i>	<i>Allowable exceedance</i>
Residence on privately-owned land	120	10	0%
	115	5	5% of total number of blasts over a 12 month period

14. Delete conditions E9 and E10.

15. In condition E21(b)(vi), insert “and decommissioning” after “construction” the first time that word appears in the condition.

16. Delete conditions F7 to F10 and insert the following:

Noise Verification Report

- F7. Prior to commissioning of the wind farm, the Proponent shall provide an updated prediction of wind farm noise levels at all non-associated residences or representative clusters of non-associated residences that will experience wind turbine noise greater than 35 dB(A) when turbines are operating at rated power. The report is to be prepared in consultation with the EPA and should meet the requirements set out in Appendix 2.

Operational Noise Criteria – Wind Turbines

- F8. The Proponent shall ensure that the noise generated by the operation of wind turbines does not exceed the greater of:
- (a) 35 dB(A); or
 - (b) the existing background noise level for each integer wind speed from cut-in speed to the rated power of the wind turbine generators, by more than 5 dB(A).

Unless otherwise replaced by an equivalent NSW wind farm noise guideline, noise generated by the project is to be measured in accordance with the relevant requirements of Sections 3.1 and 3.2 of the South Australian Environment Protection Authority's *Wind Farms Environmental Noise Guidelines 2009*, as modified by the provisions in Appendix 3.

However, these criteria do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

Operational Noise Criteria – Ancillary Infrastructure

- F9. The Proponent shall ensure that the noise generated by the operation of ancillary infrastructure does not exceed 35 dB(A) LAeq(15 minute) at any non-associated residence.

Noise generated by the project is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy* (as may be updated from time-to-time), as modified by the provision in Appendix 3.

However, these criteria do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

Operating Conditions

- F10. The Proponent shall:
- (a) implement best management practice to minimise the construction, operational, decommissioning and road traffic noise and vibration of the project;
 - (b) implement sector management of wind turbines to manage any wind directions or meteorological conditions that are found to result in exceedances of the noise criteria in condition F8;
 - (c) undertake noise monitoring within 3 months of the commissioning of the wind farm, or other timing as may be agreed by the Secretary, to determine whether the project is complying with the relevant conditions of this approval; and
 - (d) carry out further noise monitoring if required by the Secretary, to the satisfaction of the Secretary.

17. Delete conditions F11 to F18.

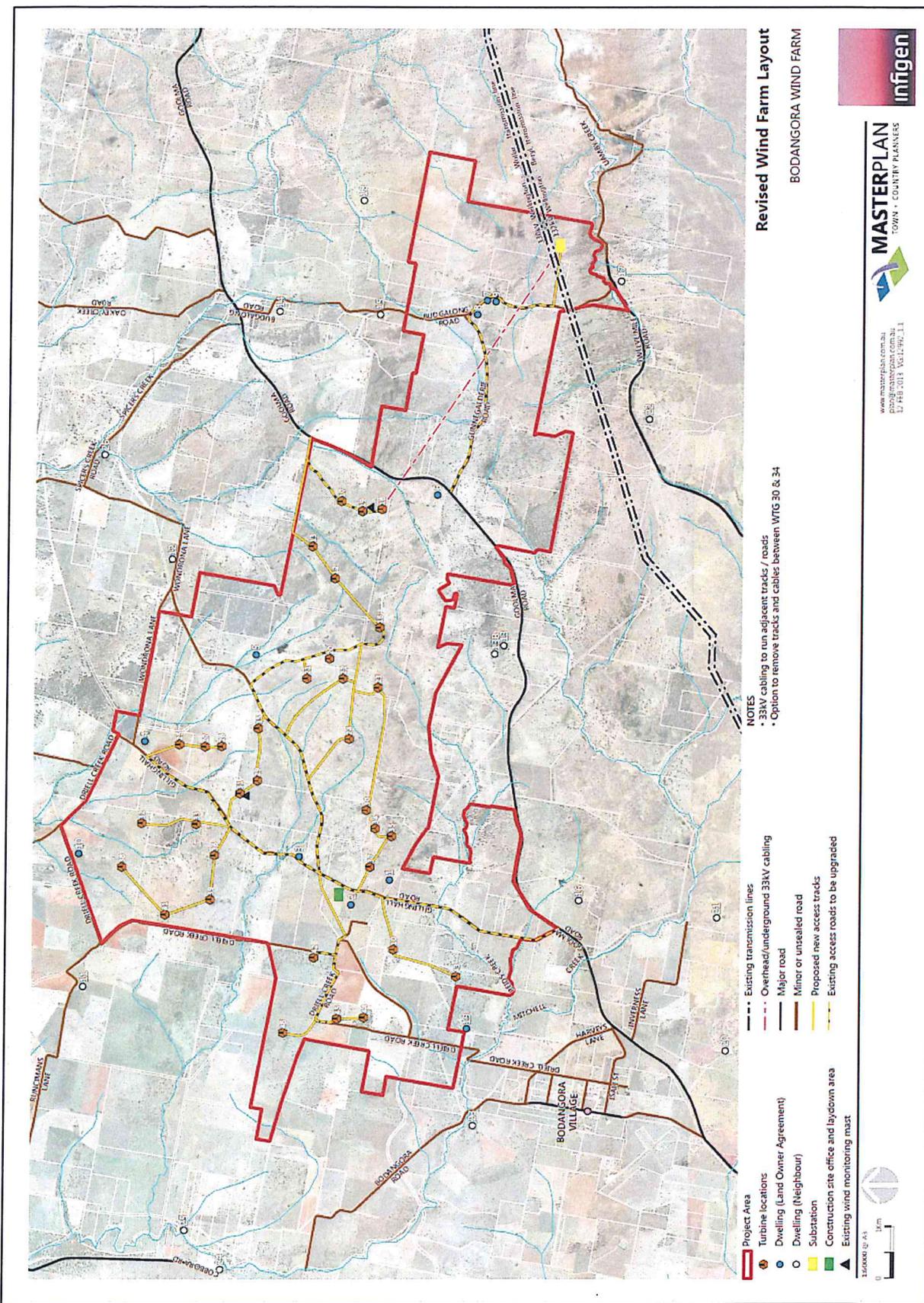
18. Insert the following after condition F19(f):

- (g) details of how sector management would be used to ensure that operational noise criteria are not exceeded.

19. Delete condition F20.

20. Insert the following appendices:

APPENDIX 1 PROJECT LAYOUT



Revised Wind Farm Layout
BODANGORA WIND FARM

APPENDIX 2 NOISE VERIFICATION REPORT

Consistent with condition F7 and prior to commissioning of the wind farm, the Proponent must prepare a noise assessment report that includes but is not limited to the following:

- (a) Background noise levels for each of the relevant receiver locations that are not associated with the project. The background noise level data must be collected in accordance with the requirements and recommendations of 'Section 3.1 Background Noise' of the document *Wind Farms Environmental Noise Guidelines* (South Australia EPA, 2009). Relevant data collected for the EA may be used for this purpose.
- (b) Address and GPS location of all non-associated relevant receivers.
- (c) Wind speed measurements for at least each integer wind speed from cut-in speed to the speed up to the rated power of the wind turbine generators in accordance with the requirements of Section 3.2 of the document *Wind Farms Environmental Noise Guidelines* (South Australia EPA, 2009).
- (d) Predicted noise levels at all relevant receiver locations that are not associated with the project for each integer wind speed from cut-in speed to the speed of the rated power in accordance with the document *Wind Farms Environmental Noise Guidelines* (South Australia EPA, 2009), as modified by Appendix 3. Noise modelling should be representative of final turbine selection and layout design.
- (e) Where operations need to be controlled under certain meteorological conditions in order to meet noise criteria set out in condition F8, these controls (such as sector management) must be described in detail.
- (f) The noise verification report should include all the documentation required by Section 5.1 and 5.2 of the document *Wind Farms Environmental Noise Guidelines* (South Australia EPA, 2009).

APPENDIX 3 NOISE COMPLIANCE ASSESSMENT

PART A: SOUTH AUSTRALIAN WIND FARMS: ENVIRONMENTAL NOISE GUIDELINES 2009 (MODIFIED)

Unless stipulated otherwise, South Australian *Wind Farms: Environmental Noise Guidelines 2009* (Modified) refers to the South Australian EPA document modified for use in NSW. The modifications are as follows:

Tonality

The presence of excessive tonality (a special noise characteristic) is consistent with that described in *ISO 1996.2: 2007 Acoustics — Description, measurement and assessment of environmental noise – Determination of environmental noise levels* and is defined as when the level of one-third octave band measured in the equivalent noise level $L_{eq}(10\text{minute})$ exceeds the level of the adjacent bands on both sides by:

- 5dB or more if the centre frequency of the band containing the tone is in the range 500Hz to 10,000Hz;
- 8dB or more if the centre frequency of the band containing the tone is in the range 160 to 400Hz; and/or
- 15dB or more if the centre frequency of the band containing the tone is in the range 25Hz to 125Hz.

If tonality is found to be a repeated characteristic of the wind turbine noise, 5 dB(A) should be added to measured noise levels from the wind farm. If tonality is only identified for certain wind directions and speeds, the penalty is only applicable under these conditions. The tonal characteristic penalty applies only if the tone from the wind turbine is audible at the relevant receiver. Absence of tone in noise emissions measured at an intermediate location is sufficient proof that the tone at the receiver is not associated with the wind farm's operation. The assessment for tonality should only be made for frequencies of concern from 25 Hz to 10 KHz and for sound pressure levels above the threshold of hearing (as defined in *ISO 389.7: 2005 Acoustics - Reference zero for the calibration of audiometric equipment - Part 7: Reference threshold of hearing under free-field and diffuse-field listening conditions*).

Low Frequency Noise

The presence of excessive low frequency noise (a special noise characteristic) [i.e. noise from the wind farm that is repeatedly greater than 65 dB(C) during the day time or 60 dB(C) during the night time at any relevant receiver] will incur a 5 dB(A) penalty, to be added to the measured noise level for the wind farm, unless a detailed internal low frequency noise assessment demonstrates compliance with the proposed criteria for the assessment of low frequency noise disturbance (UK Department for Environment, Food and Rural Affairs (DEFRA, 2005)) for a steady state noise source.

Notes:

- For the purposes of these conditions, a special noise characteristic is defined as a repeated characteristic if it occurs for more than 10% of an assessment period. This equates to being identified for more than 54 minutes during the 9 hour night from 10pm – 7am, or for more than 90 minutes during the 15 hour day from 7am – 10pm. This definition refers to verified wind farm noise only.
- The maximum penalty to be added to the measured noise level from the wind farm for any special noise characteristic individually or cumulatively is 5 dB(A).
- Notwithstanding conditions F8 and F9 of this project approval, the noise limits specified under these conditions do not apply to any residence where a noise agreement is in place between the Proponent and the owner(s) of those residences in relation to noise impacts and / or noise limits. For this condition to take effect, the noise agreements shall satisfy the relevant requirements of *Guidelines for Community Noise (WHO, 1999)*.

PART B: NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions – Wind Turbines

1. The noise criteria in condition F8 of the conditions are to apply under all meteorological conditions.

Applicable Meteorological Conditions – Other Facilities

2. The noise criteria in condition F9 of the conditions are to apply under all meteorological conditions except the following:
 - (a) wind speeds greater than 3 m/s at 10 m above ground level; or
 - (b) temperature inversion conditions between 1.5°C and 3°C/100m and wind speeds greater than 2 m/s at 10 m above ground level; or
 - (c) temperature inversion conditions greater than 3°C/100m.