



Your reference: MP08_0022 MOD 3
Our reference: EF13/5568; DOC16/394721-08
Contact: Jason Price 02 6969 0700

The Manager Energy
Infrastructure Projects
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Osbourne

Re Silvertown wind farm – modification to Major Project No 08_0022 (MOD 3)

I refer to your electronic mail dated 29 July 2016 to the Environment Protection Authority (EPA) seeking a written submission from the EPA on the Environmental Assessment (EA) that supports a modified project approval application submitted by Silvertown Wind Farm Developments Pty Ltd for a wind farm in the Barrier Ranges near Silvertown.

We have reviewed the information provided and determined that we support the proposed modification subject to the Department of Planning and Environment (DPE) incorporating the recommended conditions provided in the enclosed Attachment 'A' into the project approval.

Attachment 'B' contains our assessment of the EA, including justification for our recommended conditions of consent.

Please note that inclusion of our recommended conditions in any development consent granted by the DPE is important for our ongoing support of the proposal. It is expected that the EPA will be given an opportunity to review and comment on the DPE's draft conditions of consent for this proposal.

Where a modified project approval for the wind farm is granted, an application for an environment protection licence and a revised Noise Impact Assessment will be required to be submitted by the proponent to the EPA prior to any construction work or activities associated with the proposal.

If you have any further enquiries about this matter please contact Jason Price by telephoning 02 6969 0700.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Darren Wallett', followed by the date '29/8/16'.

DARREN WALLETT
Head, Griffith Unit
Environment Protection Authority

ATTACHMENT 'A'

We recommend that the following conditions are retained and/or included in any modified project approval (Application No 08_0022) for the Silverton wind farm located in the Barrier Ranges near Silverton.

Schedule 2

Limits of Approval

- 1.6 The project shall not exceed 172 wind turbines.
 1.6a The maximum turbine tip height shall not exceed 180 metres from ground level.

Noise Impacts

- 2.7 (Retain)
 2.8 (Retain)
 2.9 (Retain)
 2.10 (Retain)
 2.11 (Retain)
 2.12 (Retain)
 2.13 (Retain)
 2.14 (Retain)
 2.15 (Retain)
 2.20 Replace with:
 2.20 For wind speeds from cut in to rated power of the wind turbine generators, wind turbine noise generated from the premises must not exceed the greater of:
- a) 35 dBA or
 - b) the existing background noise level plus 5 dBA for each integer wind speed at hub height, at the wind farm site
- at the nearest non-involved residential receivers.

2.20a For the purpose of determining compliance with condition 2.20, the locations and noise limits in the table below apply. The locations referred to in the table below are defined in condition 2.20B.

Location	L _{eq(10minute)} NOISE LIMITS (dBA)						
	3	4	5	6	7	8	9 or more
Integer wind speed (m/s) at hub height							
SL6	36	38	39	40	40	41	42
S10, S11, S12, S14, S15, S16, S17a, S17b, S18, S19, S20, S21, S22, S24, S25a, S25b, S27, S28a, S28b, S29	35	35	35	35	35	35	35
SL3	37	37	37	38	38	38	38

2.20b For the purpose of condition 2.20a, locations are defined in the table below. Grid references (eastings and northings) refer to the Map Grid of Australia 1994 (MGA94), Zone 54.

Location	Name	Easting (m)	Northing (m)
S10	Willangee Road Silverton	520508	6472376

Location	Name	Easting (m)	Northing (m)
S11	Thackaringa Street Silverton	520663	6472010
S12	Layard Street Silverton	520976	6471892
S14	Silverton Road Silverton	521947	6472277
S15	Burke Street Silverton	520956	6472316
S16	Burke Street Silverton	521243	6472275
S17a	Layard Street Silverton	521025	6472557
S17b	Layard Street Silverton	521065	6472551
S18	Burke Street Silverton	521169	6472417
S19	Gipps Street Silverton	521305	6472779
S20	Unnamed road Silverton	521310	6473016
S21	Unnamed road Silverton	521349	6473120
S22	Unnamed road Silverton	521491	6473190
S24	Penrose Park	521585	6472431
S25a	Burke Street Silverton	521376	6472210
S25b	Loftus, Silverton	521403	6472255
S27	Unnamed road Silverton	522282	6472652
S28a	Silverton Road Silverton	522122	6472266
S28b	Silverton Road Silverton	522186	6472304
S29	Silverton Road Silverton	521918	6471763
SL3	Limestone Station	535925	6469159
SL6	Umberumberka	519709	6479956

2.21 Replace with:

2.21 The Proponent shall prepare a revised Noise Impact Assessment (NIA) for the final turbine model and turbine layout selected. **The revised NIA is to be prepared in consultation with the EPA** and shall be submitted to the Secretary prior to the commissioning of the WTG's. The NIA shall include the noise predictions of the final turbine model and layout selected at each of the receiver locations. The NIA will demonstrate consistency with the EA and the ability of final turbine model and layout to meet the requirements of conditions 2.20:

a) These revised noise predictions will become the new limit.

The NIA must outline the methodology used to assess tonality.)

2.22 (Retain)

2.25 (Retain)

2.26 (Retain)

2.27 (Retain)

2.28 (Retain)

Air Quality Impacts

2.49 (Retain)

Soil and Water Quality Impacts

- 2.59 (Retain)
- 2.60 (Retain)
- 2.62 (Retain)
- 2.63 (Retain)

Bunding and Spill Management

- 2.66 (Retain)

Waste Generation and Management

- 2.68 (Retain)
- 2.69 (Retain)
- 2.70 (Retain)

Independent Environmental Auditing

- 3.3 (Retain)

Environmental Management

- 5.1 (Retain)
- 5.2 (Retain)
- 5.5 (Retain)
- 5.6 (Retain)

ATTACHMENT 'B'

The proposed modification to the Silverton wind farm (MP 08_0022 MOD 3) reduces the approved wind turbines permitted from 282 to 172 and despite the proposed turbines expected to be larger than those approved, this modification is likely to result in reduced impacts on the surrounding environment and sensitive receptors.

Air Quality

The primary concern for this development in terms of air quality is the potential for impacts from dust generated from the construction of turbine pads, access roads and operational vehicle movements.

We note that 110 less turbine pads will be required (although each individual footprint will increase) and that there is a 30 kilometre reduction in access tracks required.

The Environmental Assessment for the proposed modification does not propose any additional dust mitigation measures however dust mitigation measures from construction are expected to be detailed in the construction environmental management plan and operational vehicle movements raising dust will be managed through the environment protection licence.

Noise Impact Assessment

The 'Noise Impact Assessment' (NIA) (SLR Consulting Australia Pty Ltd , 2016) appears to generally meet the requirements of the 'South Australian EPA Noise Guideline for Wind Farms, 2003' (SA EPA Guidelines) and states it was consistent with the 'Draft NSW Planning Guidelines – Wind Farms, 2011' assessment methodology.

The NIA indicates that the modified project will reduce noise impacts on surrounding sensitive receptors and will comply with the SA EPA Guidelines. However, the EPA's suggested noise limits at residences in Silverton are based on measurements at Penrose Park North, not Penrose Park South as the NIA suggests as:

- the measured background noise levels at Penrose Park South had very low correlation with wind speed and varied by about 30 dBA at any wind speed between 3 m/s and 13 m/s;
- "filtered" background noise levels at Penrose Park South showed a significant difference between the day time and night time (about 10 dBA); and
- the 2008 assessment adopted the night time regression line for Penrose Park, and noted a "high bird population" in the southern part of Penrose Park.

The NIA indicates that the project would easily comply with the EPA's proposed noise limits.

We understand the final wind turbine model has not been chosen, and worst case sound power levels were used in the assessment based on various known turbine model sound power levels. The project's actual turbine sound power levels are not known at this stage.

The EPA recommends most existing noise conditions are retained, in any modified project approval, to require:

- statutory compliance with the SA EPA Guidelines
- a revised NIA to be submitted prior to construction.

The revised NIA will finalise the wind farm layout, turbine model and sound power levels.

The EPA also requests that we are consulted on the preparation of the revised NIA prior to submission of the revised NIA to the Secretary, so that the EPA can conduct a review of the final assessment and ensure:

- Compliance with the relevant guideline is achieved at all sensitive receptors (otherwise so that acquisition or mitigation rights are assigned);

- That the project approval and environment protection licence conditions are consistent;
- Timely preparation of the environment protection licence which is also required prior to construction.

Surface Water

There are numerous ephemeral water courses in the project footprint and the primary impact from the project on surface water is in relation to the construction of access tracks and their crossing intersections with the ephemeral water courses.

The modified proposal will result in a reduction of 136 crossings and a retraction in activities away from the Umberumbeka Reservoir resulting a net benefit to the potential impacts on surface waters.

The EPA has recommended retaining conditions which protect and mitigate access road construction impacts on the ephemeral water courses and the Umberumbeka Reservoir.

Waste

The modification will result in the generation of less solid and liquid waste particularly through construction. The EPA has recommended that conditions are retained that require lawful disposal of waste. Waste disposal, handling and storage will be managed through conditions in the environment protection licence.