

4 April 2013

40-1952 EPA Review Comments 20130322.docx

Union Fenosa Wind Pty Ltd
Suite 403, 68 York St
Sydney NSW 2000

Attention: Shaq Mohajerani

Dear Shaq

**Crookwell 3 Wind Farm
EPA Review Comments
Response by SLR Consulting**

SLR Consulting Australia Pty Ltd (SLR Consulting) has received the EPA review comments in relation the Crookwell 3 NIA. The following is response to each of the requests for additional information.

Crookwell 3 only predictions

The EPA has requested SLR Consulting to provide:

Predicted noise levels received by sensitive receivers from the Crookwell 3 wind farm alone for each integer hub-height wind speed for each turbine modelled in the NIA

These are listed in the attachment to this letter – **Attachment A**.

Crookwell 3 only allowable noise level to meet cumulative criteria

The EPA has requested SLR Consulting to provide:

The allowable noise levels received by sensitive receivers from the Crookwell 3 wind farm alone for each integer hub-height wind speed in order for the Crookwell 1, 2 and 3 wind farms to meet the criteria in the Environmental Noise Guidelines: Wind Farms (SA EPA 2003)

It should be noted that the SA EPA Guideline Criteria (35 dBA or background + 5 dBA) for new wind farm developments are unclear whether they apply to each individual wind farm or if they should cover a cumulative total of all wind farms. It is our understanding that in South Australia, the limit applies to each individual wind farm. In New South Wales where the INP approach is to set a cumulative limit from all industry it may be considered more appropriate to cap all wind farm noise emissions to the SA EPA criteria.

The approach adopted in the NIA is the more conservative, with the cumulative total of Crookwell 1 (CW1), Crookwell 2 (CW2) and Crookwell 3 (CW3) aiming toward meeting the criteria.

Additionally, the predictions for the total noise for CW1, CW2 and CW3 have been based on an assumed layout of Vestas V90 turbines. The original NIA for CW2 was able to demonstrate compliance by placing a number of turbines in Noise Management Mode; an assumption that not carried forward into the CW3 NIA on the basis that it would result in a more conservative view of the cumulative impact of all three wind farms operating concurrently. Therefore, where the predicted cumulative noise level for CW1 and CW2 is above the criteria, the derived license limit for that location is 10 dBA below the limit, at each integer wind speed. This approach is in-line with the approach in the NSW INP where new industry may not increase the noise level in the area and are therefore instructed to design for 10 dBA below the limit. This is only the case for two non-project-involved locations.

The predicted allowable noise levels are listed in an attachment to this letter – **Attachment B**.

If a revised NIA is completed for Crookwell 3, it should be understood that the license limits should be updated to be equal with the revised predicted level, provided that it complies to the SA EPA criteria, rather than the level predicted for any layout presented in the original NIA. The EPA should confirm that this approach is acceptable to them.

Similarly, as the final turbine type for Crookwell 2 has yet to be determined, if a revised NIA is completed for Crookwell 2 (i.e. a layout change or alternative turbine), then the license limits will need to be appropriately re-established with the new predictions.

Finally, the license limits derived from the data contained in Attachment A and Attachment B will only apply to project uninvolved receptors, ie those that have not signed a noise agreement with the proponent. For the project involved receptors, the noise agreement or WHO based limits take precedent.

If you require any further information about our analysis, please feel free to contact us at any time.

Yours sincerely



GUSTAF REUTERSWARD

MELBOURNE OFFICE MANAGER

ATTACHMENT A

Below are the noise predictions for Crookwell 3 only. It is our understanding that for locations where the noise is predicted to comply to the SA EPA noise limit, the license limit for Crookwell 3 Wind Farm will be the predicted noise level, as shown in the tables below.

Table 1 Crookwell 3 only predicted noise levels – Vestas V90

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
1	24.0	24.7	24.3	23.3	22.5
2	25.9	26.6	26.2	25.2	24.4
3	26.1	26.8	26.4	25.4	24.6
4	23.6	24.3	23.9	22.9	22.1
5	24.3	25.0	24.6	23.6	22.8
6	24.5	25.2	24.8	23.8	23.0
7	24.6	25.3	24.9	23.9	23.1
8	33.9	34.6	34.2	33.2	32.4
9	14.4	15.1	14.7	13.7	12.9
10	16.3	17.0	16.6	15.6	14.8
11	16.3	17.0	16.6	15.6	14.8
12	22.1	22.8	22.4	21.4	20.6
13	20.4	21.1	20.7	19.7	18.9
14	22.4	23.1	22.7	21.7	20.9
15	22.5	23.2	22.8	21.8	21.0
16	22.8	23.5	23.1	22.1	21.3
17	31.7	32.4	32.0	31.0	30.2
18	34.6	35.3	34.9	33.9	33.1
19	34.2	34.9	34.5	33.5	32.7
20	29.1	29.8	29.4	28.4	27.6
21	23.2	23.9	23.5	22.5	21.7
22	25.5	26.2	25.8	24.8	24.0
23	21.1	21.8	21.4	20.4	19.6
24	22.3	23.0	22.6	21.6	20.8
25	20.5	21.2	20.8	19.8	19.0
26	17.7	18.4	18.0	17.0	16.2
27	17.8	18.5	18.1	17.1	16.3
28	17.9	18.6	18.2	17.2	16.4
29	23.3	24.0	23.6	22.6	21.8
30	23.3	24.0	23.6	22.6	21.8
32	22.4	23.1	22.7	21.7	20.9
33	23.2	23.9	23.5	22.5	21.7
34	24.5	25.2	24.8	23.8	23.0
35	23.2	23.9	23.5	22.5	21.7

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
36	25.6	26.3	25.9	24.9	24.1
37	24.7	25.4	25.0	24.0	23.2
38	25.3	26.0	25.6	24.6	23.8
39	25.6	26.3	25.9	24.9	24.1
40	25.1	25.8	25.4	24.4	23.6
41	23.2	23.9	23.5	22.5	21.7
42	17.1	17.8	17.4	16.4	15.6
43	17.3	18.0	17.6	16.6	15.8
44	17.1	17.8	17.4	16.4	15.6
45	17.5	18.2	17.8	16.8	16.0
46	18.0	18.7	18.3	17.3	16.5
47	22.1	22.8	22.4	21.4	20.6
48	22.5	23.2	22.8	21.8	21.0
49	22.8	23.5	23.1	22.1	21.3
50	23.8	24.5	24.1	23.1	22.3
51	24.1	24.8	24.4	23.4	22.6
52	24.3	25.0	24.6	23.6	22.8
53	25.6	26.3	25.9	24.9	24.1
54	26.5	27.2	26.8	25.8	25.0
55	26.8	27.5	27.1	26.1	25.3
56	25.5	26.2	25.8	24.8	24.0
57	27.4	28.1	27.7	26.7	25.9
58	32.9	33.6	33.2	32.2	31.4
59	33.6	34.3	33.9	32.9	32.1
60	30.4	31.1	30.7	29.7	28.9
61	33.7	34.4	34.0	33.0	32.2
62	33.8	34.5	34.1	33.1	32.3
63	37.5	38.2	37.8	36.8	36.0
64	35.6	36.3	35.9	34.9	34.1
65	35.6	36.3	35.9	34.9	34.1
66	37.9	38.6	38.2	37.2	36.4
67	35.7	36.4	36.0	35.0	34.2
68	31.7	32.4	32.0	31.0	30.2
69	34.3	35.0	34.6	33.6	32.8
70	29.8	30.5	30.1	29.1	28.3
71	27.2	27.9	27.5	26.5	25.7
72	26.3	27.0	26.6	25.6	24.8
73	24.8	25.5	25.1	24.1	23.3
74	16.2	16.9	16.5	15.5	14.7
75	14.5	15.2	14.8	13.8	13.0
76	15.6	16.3	15.9	14.9	14.1

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
77	10.6	11.3	10.9	9.9	9.1
79	38.8	39.5	39.1	38.1	37.3
80	35.6	36.3	35.9	34.9	34.1
81	23.1	23.8	23.4	22.4	21.6
82	24.0	24.7	24.3	23.3	22.5
83	23.6	24.3	23.9	22.9	22.1
84	26.1	26.8	26.4	25.4	24.6
85	13.6	14.3	13.9	12.9	12.1
86	14.5	15.2	14.8	13.8	13.0
87	14.5	15.2	14.8	13.8	13.0
88	13.2	13.9	13.5	12.5	11.7
89	12.5	13.2	12.8	11.8	11.0
90	13.3	14.0	13.6	12.6	11.8
91	13.6	14.3	13.9	12.9	12.1
92	14.3	15.0	14.6	13.6	12.8
93	14.5	15.2	14.8	13.8	13.0
94	13.9	14.6	14.2	13.2	12.4
95	13.8	14.5	14.1	13.1	12.3
96	14.1	14.8	14.4	13.4	12.6
98	14.2	14.9	14.5	13.5	12.7
99	14.8	15.5	15.1	14.1	13.3
100	14.7	15.4	15.0	14.0	13.2
101	14.5	15.2	14.8	13.8	13.0
102	17.8	18.5	18.1	17.1	16.3
103	23.2	23.9	23.5	22.5	21.7
104	26.9	27.6	27.2	26.2	25.4
105	25.2	25.9	25.5	24.5	23.7
106	22.3	23.0	22.6	21.6	20.8
107	24.5	25.2	24.8	23.8	23.0
108	24.2	24.9	24.5	23.5	22.7
109	23.9	24.6	24.2	23.2	22.4
110	14.1	14.8	14.4	13.4	12.6
111	14.1	14.8	14.4	13.4	12.6
112	14.1	14.8	14.4	13.4	12.6
113	24.2	24.9	24.5	23.5	22.7
114	25.6	26.3	25.9	24.9	24.1
115	13.9	14.6	14.2	13.2	12.4
116	13.7	14.4	14.0	13.0	12.2

Table 2 Crookwell 3 only predicted noise levels – Repower MM92

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
1	27.9	28.7	28.7	28.7	28.7
2	29.8	30.6	30.6	30.6	30.6
3	29.9	30.7	30.7	30.7	30.7
4	27.6	28.4	28.4	28.4	28.4
5	28.3	29.1	29.1	29.1	29.1
6	28.4	29.2	29.2	29.2	29.2
7	28.5	29.3	29.3	29.3	29.3
8	37.4	38.2	38.2	38.2	38.2
9	15.7	16.5	16.5	16.5	16.5
10	17.8	18.6	18.6	18.6	18.6
11	17.8	18.6	18.6	18.6	18.6
12	25.3	26.1	26.1	26.1	26.1
13	23.3	24.1	24.1	24.1	24.1
14	25.6	26.4	26.4	26.4	26.4
15	25.8	26.6	26.6	26.6	26.6
16	26.2	27.0	27.0	27.0	27.0
17	35.3	36.1	36.1	36.1	36.1
18	37.9	38.7	38.7	38.7	38.7
19	37.7	38.5	38.5	38.5	38.5
20	32.8	33.6	33.6	33.6	33.6
21	26.9	27.7	27.7	27.7	27.7
22	29.3	30.1	30.1	30.1	30.1
23	24.2	25.0	25.0	25.0	25.0
24	25.7	26.5	26.5	26.5	26.5
25	24.1	24.9	24.9	24.9	24.9
26	20.3	21.1	21.1	21.1	21.1
27	21.4	22.2	22.2	22.2	22.2
28	21.6	22.4	22.4	22.4	22.4
29	26.7	27.5	27.5	27.5	27.5
30	26.7	27.5	27.5	27.5	27.5
32	25.8	26.6	26.6	26.6	26.6
33	26.3	27.1	27.1	27.1	27.1
34	28.0	28.8	28.8	28.8	28.8
35	26.7	27.5	27.5	27.5	27.5
36	29.2	30.0	30.0	30.0	30.0
37	28.4	29.2	29.2	29.2	29.2
38	29.2	30.0	30.0	30.0	30.0
39	29.5	30.3	30.3	30.3	30.3

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
40	28.8	29.6	29.6	29.6	29.6
41	26.6	27.4	27.4	27.4	27.4
42	18.9	19.7	19.7	19.7	19.7
43	19.2	20.0	20.0	20.0	20.0
44	18.9	19.7	19.7	19.7	19.7
45	19.5	20.3	20.3	20.3	20.3
46	20.1	20.9	20.9	20.9	20.9
47	25.3	26.1	26.1	26.1	26.1
48	25.7	26.5	26.5	26.5	26.5
49	26.1	26.9	26.9	26.9	26.9
50	27.3	28.1	28.1	28.1	28.1
51	27.6	28.4	28.4	28.4	28.4
52	27.8	28.6	28.6	28.6	28.6
53	29.3	30.1	30.1	30.1	30.1
54	30.3	31.1	31.1	31.1	31.1
55	30.5	31.3	31.3	31.3	31.3
56	29.2	30.0	30.0	30.0	30.0
57	31.2	32.0	32.0	32.0	32.0
58	36.6	37.4	37.4	37.4	37.4
59	37.3	38.1	38.1	38.1	38.1
60	34.3	35.1	35.1	35.1	35.1
61	37.4	38.2	38.2	38.2	38.2
62	37.5	38.3	38.3	38.3	38.3
63	40.9	41.7	41.7	41.7	41.7
64	39.2	40.0	40.0	40.0	40.0
65	39.1	39.9	39.9	39.9	39.9
66	41.3	42.1	42.1	42.1	42.1
67	38.9	39.7	39.7	39.7	39.7
68	35.3	36.1	36.1	36.1	36.1
69	37.8	38.6	38.6	38.6	38.6
70	33.6	34.4	34.4	34.4	34.4
71	30.9	31.7	31.7	31.7	31.7
72	30.1	30.9	30.9	30.9	30.9
73	28.5	29.3	29.3	29.3	29.3
74	19.3	20.1	20.1	20.1	20.1
75	17.2	18.0	18.0	18.0	18.0
76	18.8	19.6	19.6	19.6	19.6
77	13.6	14.4	14.4	14.4	14.4
79	41.8	42.6	42.6	42.6	42.6
80	39.1	39.9	39.9	39.9	39.9
81	26.7	27.5	27.5	27.5	27.5
82	27.6	28.4	28.4	28.4	28.4

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
83	27.0	27.8	27.8	27.8	27.8
84	29.8	30.6	30.6	30.6	30.6
85	15.0	15.8	15.8	15.8	15.8
86	16.0	16.8	16.8	16.8	16.8
87	16.9	17.7	17.7	17.7	17.7
88	15.0	15.8	15.8	15.8	15.8
89	15.4	16.2	16.2	16.2	16.2
90	15.7	16.5	16.5	16.5	16.5
91	17.0	17.8	17.8	17.8	17.8
92	15.6	16.4	16.4	16.4	16.4
93	15.8	16.6	16.6	16.6	16.6
94	15.1	15.9	15.9	15.9	15.9
95	15.0	15.8	15.8	15.8	15.8
96	15.7	16.5	16.5	16.5	16.5
98	16.5	17.3	17.3	17.3	17.3
99	17.2	18.0	18.0	18.0	18.0
100	17.9	18.7	18.7	18.7	18.7
101	16.8	17.6	17.6	17.6	17.6
102	20.6	21.4	21.4	21.4	21.4
103	26.4	27.2	27.2	27.2	27.2
104	30.6	31.4	31.4	31.4	31.4
105	29.0	29.8	29.8	29.8	29.8
106	26.1	26.9	26.9	26.9	26.9
107	28.3	29.1	29.1	29.1	29.1
108	28.0	28.8	28.8	28.8	28.8
109	27.6	28.4	28.4	28.4	28.4
110	17.5	18.3	18.3	18.3	18.3
111	17.5	18.3	18.3	18.3	18.3
112	17.5	18.3	18.3	18.3	18.3
113	27.8	28.6	28.6	28.6	28.6
114	29.3	30.1	30.1	30.1	30.1
115	17.3	18.1	18.1	18.1	18.1
116	17.1	17.9	17.9	17.9	17.9

Table 3 Crookwell 3 only predicted noise levels – Vestas V100

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
1	21.9	22.5	22.5	22.5	22.5
2	24.6	25.2	25.2	25.2	25.2
3	24.7	25.3	25.3	25.3	25.3
4	21.6	22.2	22.2	22.2	22.2
5	22.5	23.1	23.1	23.1	23.1
6	22.7	23.3	23.3	23.3	23.3
7	22.8	23.4	23.4	23.4	23.4
8	34.2	34.8	34.8	34.8	34.8
9	5.0	5.6	5.6	5.6	5.6
10	7.9	8.5	8.5	8.5	8.5
11	7.9	8.5	8.5	8.5	8.5
12	16.2	16.8	16.8	16.8	16.8
13	14.4	15.0	15.0	15.0	15.0
14	16.6	17.2	17.2	17.2	17.2
15	16.9	17.5	17.5	17.5	17.5
16	18.3	18.9	18.9	18.9	18.9
17	31.5	32.1	32.1	32.1	32.1
18	35.0	35.6	35.6	35.6	35.6
19	34.4	35.0	35.0	35.0	35.0
20	27.8	28.4	28.4	28.4	28.4
21	20.2	20.8	20.8	20.8	20.8
22	23.3	23.9	23.9	23.9	23.9
23	16.4	17.0	17.0	17.0	17.0
24	17.6	18.2	18.2	18.2	18.2
25	15.8	16.4	16.4	16.4	16.4
26	12.5	13.1	13.1	13.1	13.1
27	14.2	14.8	14.8	14.8	14.8
28	14.4	15.0	15.0	15.0	15.0
29	18.2	18.8	18.8	18.8	18.8
30	18.2	18.8	18.8	18.8	18.8
32	17.7	18.3	18.3	18.3	18.3
33	18.0	18.6	18.6	18.6	18.6
34	20.1	20.7	20.7	20.7	20.7
35	18.6	19.2	19.2	19.2	19.2
36	21.7	22.3	22.3	22.3	22.3
37	21.7	22.3	22.3	22.3	22.3
38	23.5	24.1	24.1	24.1	24.1
39	24.0	24.6	24.6	24.6	24.6
40	21.3	21.9	21.9	21.9	21.9

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
41	18.1	18.7	18.7	18.7	18.7
42	9.6	10.2	10.2	10.2	10.2
43	10.2	10.8	10.8	10.8	10.8
44	9.6	10.2	10.2	10.2	10.2
45	10.6	11.2	11.2	11.2	11.2
46	11.5	12.1	12.1	12.1	12.1
47	16.2	16.8	16.8	16.8	16.8
48	16.9	17.5	17.5	17.5	17.5
49	17.4	18.0	18.0	18.0	18.0
50	19.1	19.7	19.7	19.7	19.7
51	19.6	20.2	20.2	20.2	20.2
52	19.9	20.5	20.5	20.5	20.5
53	21.9	22.5	22.5	22.5	22.5
54	23.4	24.0	24.0	24.0	24.0
55	23.9	24.5	24.5	24.5	24.5
56	22.3	22.9	22.9	22.9	22.9
57	24.7	25.3	25.3	25.3	25.3
58	32.6	33.2	33.2	33.2	33.2
59	33.2	33.8	33.8	33.8	33.8
60	29.0	29.6	29.6	29.6	29.6
61	33.3	33.9	33.9	33.9	33.9
62	33.3	33.9	33.9	33.9	33.9
63	37.7	38.3	38.3	38.3	38.3
64	35.8	36.4	36.4	36.4	36.4
65	35.8	36.4	36.4	36.4	36.4
66	38.3	38.9	38.9	38.9	38.9
67	35.6	36.2	36.2	36.2	36.2
68	31.2	31.8	31.8	31.8	31.8
69	34.4	35.0	35.0	35.0	35.0
70	28.6	29.2	29.2	29.2	29.2
71	25.0	25.6	25.6	25.6	25.6
72	23.7	24.3	24.3	24.3	24.3
73	21.4	22.0	22.0	22.0	22.0
74	10.6	11.2	11.2	11.2	11.2
75	9.1	9.7	9.7	9.7	9.7
76	10.2	10.8	10.8	10.8	10.8
77	4.4	5.0	5.0	5.0	5.0
79	39.6	40.2	40.2	40.2	40.2
80	35.4	36.0	36.0	36.0	36.0
81	19.0	19.6	19.6	19.6	19.6
82	20.3	20.9	20.9	20.9	20.9
83	18.9	19.5	19.5	19.5	19.5

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
84	22.8	23.4	23.4	23.4	23.4
85	4.9	5.5	5.5	5.5	5.5
86	6.2	6.8	6.8	6.8	6.8
87	8.8	9.4	9.4	9.4	9.4
88	6.0	6.6	6.6	6.6	6.6
89	6.9	7.5	7.5	7.5	7.5
90	7.0	7.6	7.6	7.6	7.6
91	9.0	9.6	9.6	9.6	9.6
92	5.5	6.1	6.1	6.1	6.1
93	6.0	6.6	6.6	6.6	6.6
94	4.5	5.1	5.1	5.1	5.1
95	4.4	5.0	5.0	5.0	5.0
96	6.0	6.6	6.6	6.6	6.6
98	8.2	8.8	8.8	8.8	8.8
99	9.0	9.6	9.6	9.6	9.6
100	10.2	10.8	10.8	10.8	10.8
101	8.4	9.0	9.0	9.0	9.0
102	12.8	13.4	13.4	13.4	13.4
103	18.0	18.6	18.6	18.6	18.6
104	24.9	25.5	25.5	25.5	25.5
105	22.2	22.8	22.8	22.8	22.8
106	20.5	21.1	21.1	21.1	21.1
107	21.9	22.5	22.5	22.5	22.5
108	21.2	21.8	21.8	21.8	21.8
109	20.2	20.8	20.8	20.8	20.8
110	9.7	10.3	10.3	10.3	10.3
111	9.7	10.3	10.3	10.3	10.3
112	9.6	10.2	10.2	10.2	10.2
113	21.0	21.6	21.6	21.6	21.6
114	23.0	23.6	23.6	23.6	23.6
115	9.3	9.9	9.9	9.9	9.9
116	9.0	9.6	9.6	9.6	9.6

Table 4 Crookwell 3 only predicted noise levels – G.E. 2.5xl

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
1	26.6	28.6	28.7	27.5	-
2	28.5	30.5	30.6	29.4	-
3	28.6	30.6	30.7	29.5	-
4	26.2	28.2	28.3	27.1	-
5	26.9	28.9	29.0	27.8	-
6	27.1	29.1	29.2	28.0	-
7	27.1	29.1	29.2	28.0	-
8	36.0	38.0	38.1	36.9	-
9	14.8	16.8	16.9	15.7	-
10	16.9	18.9	19.0	17.8	-
11	16.8	18.8	18.9	17.7	-
12	24.2	26.2	26.3	25.1	-
13	22.2	24.2	24.3	23.1	-
14	24.5	26.5	26.6	25.4	-
15	24.7	26.7	26.8	25.6	-
16	25.0	27.0	27.1	25.9	-
17	33.9	35.9	36.0	34.8	-
18	36.5	38.5	38.6	37.4	-
19	36.3	38.3	38.4	37.2	-
20	31.5	33.5	33.6	32.4	-
21	25.6	27.6	27.7	26.5	-
22	28.0	30.0	30.1	28.9	-
23	23.0	25.0	25.1	23.9	-
24	24.5	26.5	26.6	25.4	-
25	22.9	24.9	25.0	23.8	-
26	19.0	21.0	21.1	19.9	-
27	20.2	22.2	22.3	21.1	-
28	20.3	22.3	22.4	21.2	-
29	25.5	27.5	27.6	26.4	-
30	25.5	27.5	27.6	26.4	-
32	24.6	26.6	26.7	25.5	-
33	25.1	27.1	27.2	26.0	-
34	26.8	28.8	28.9	27.7	-
35	25.5	27.5	27.6	26.4	-
36	28.0	30.0	30.1	28.9	-
37	27.2	29.2	29.3	28.1	-
38	27.9	29.9	30.0	28.8	-
39	28.1	30.1	30.2	29.0	-
40	27.6	29.6	29.7	28.5	-

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
41	25.4	27.4	27.5	26.3	-
42	17.8	19.8	19.9	18.7	-
43	18.2	20.2	20.3	19.1	-
44	17.8	19.8	19.9	18.7	-
45	18.4	20.4	20.5	19.3	-
46	19.0	21.0	21.1	19.9	-
47	24.2	26.2	26.3	25.1	-
48	24.6	26.6	26.7	25.5	-
49	25.0	27.0	27.1	25.9	-
50	26.1	28.1	28.2	27.0	-
51	26.4	28.4	28.5	27.3	-
52	26.6	28.6	28.7	27.5	-
53	28.0	30.0	30.1	28.9	-
54	29.0	31.0	31.1	29.9	-
55	29.3	31.3	31.4	30.2	-
56	28.0	30.0	30.1	28.9	-
57	30.0	32.0	32.1	30.9	-
58	35.2	37.2	37.3	36.1	-
59	35.9	37.9	38.0	36.8	-
60	32.9	34.9	35.0	33.8	-
61	36.0	38.0	38.1	36.9	-
62	36.1	38.1	38.2	37.0	-
63	39.5	41.5	41.6	40.4	-
64	37.8	39.8	39.9	38.7	-
65	37.7	39.7	39.8	38.6	-
66	39.9	41.9	42.0	40.8	-
67	37.5	39.5	39.6	38.4	-
68	34.0	36.0	36.1	34.9	-
69	36.4	38.4	38.5	37.3	-
70	32.2	34.2	34.3	33.1	-
71	29.6	31.6	31.7	30.5	-
72	28.8	30.8	30.9	29.7	-
73	27.2	29.2	29.3	28.1	-
74	18.2	20.2	20.3	19.1	-
75	16.0	18.0	18.1	16.9	-
76	17.6	19.6	19.7	18.5	-
77	12.5	14.5	14.6	13.4	-
79	40.4	42.4	42.5	41.3	-
80	37.7	39.7	39.8	38.6	-
81	25.5	27.5	27.6	26.4	-
82	26.4	28.4	28.5	27.3	-
83	25.8	27.8	27.9	26.7	-

10 m AGL Wind Speed	6	7	8	9	10
Hub Height Wind Speed	8.2	9.6	10.9	12.3	13.7
Receiver	Predicted Noise Level, dBA				
84	28.5	30.5	30.6	29.4	-
85	14.0	16.0	16.1	14.9	-
86	15.0	17.0	17.1	15.9	-
87	15.8	17.8	17.9	16.7	-
88	13.9	15.9	16.0	14.8	-
89	14.3	16.3	16.4	15.2	-
90	14.6	16.6	16.7	15.5	-
91	15.8	17.8	17.9	16.7	-
92	14.6	16.6	16.7	15.5	-
93	14.8	16.8	16.9	15.7	-
94	14.2	16.2	16.3	15.1	-
95	14.1	16.1	16.2	15.0	-
96	14.7	16.7	16.8	15.6	-
98	15.4	17.4	17.5	16.3	-
99	16.1	18.1	18.2	17.0	-
100	16.7	18.7	18.8	17.6	-
101	15.6	17.6	17.7	16.5	-
102	19.4	21.4	21.5	20.3	-
103	25.2	27.2	27.3	26.1	-
104	29.2	31.2	31.3	30.1	-
105	27.7	29.7	29.8	28.6	-
106	24.7	26.7	26.8	25.6	-
107	27.0	29.0	29.1	27.9	-
108	26.8	28.8	28.9	27.7	-
109	26.4	28.4	28.5	27.3	-
110	16.3	18.3	18.4	17.2	-
111	16.3	18.3	18.4	17.2	-
112	16.3	18.3	18.4	17.2	-
113	26.5	28.5	28.6	27.4	-
114	28.0	30.0	30.1	28.9	-
115	16.1	18.1	18.2	17.0	-
116	15.9	17.9	18.0	16.8	-

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H8 Narangi		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0201x^3 + 0.7209x^2 - 5.4402x + 35.805$	24.8	26.2	28.1	30.6	33.4
SA EPA Criteria		35.0	35.0	35.0	35.6	38.4
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H2		32.6	31.8	31.9	33.5	37.7
H3		33.9	33.6	33.7	34.7	38.0
H4		34.2	34.0	34.0	34.9	38.1
H5		34.4	34.3	34.3	35.1	38.2
H6		34.4	34.3	34.3	35.1	38.2
H7		34.5	34.3	34.3	35.1	38.2
H8		34.6	34.5	34.5	35.2	38.2

H18 Woolondilly2		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0143x^3 + 0.5536x^2 - 4.7402x + 39.782$	28.2	28.8	30.0	31.5	33.4
SA EPA Criteria		35.0	35.0	36.5	38.4	38.4
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H17		32.6	31.8	31.9	33.5	37.7
H18		33.9	33.6	33.7	34.7	38.0
H19		34.2	34.0	34.0	34.9	38.1

H20 Normaroo		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0124x^3 + 0.4392x^2 - 2.7661x + 29.349$	25.9	27.3	29.0	31.0	33.2
SA EPA Criteria		35.0	35.0	35.0	36.0	38.2
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H20		25.0	25.0	25.0	26.0	28.2

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H58 Woodhouseslee Rd		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0045x^3 + 0.2194x^2 - 1.5322x + 31.956$	29.7	30.4	31.4	32.7	34.1
SA EPA Criteria		35.0	35.4	36.4	37.7	39.1
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H58		34.6	35.0	36.1	37.5	39.0
H59		34.5	34.8	36.0	37.4	38.9

H62 Cottonwood		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0135x^3 + 0.4454x^2 - 2.4834x + 29.187$	27.4	29.0	30.9	33.1	35.4
SA EPA Criteria		35.0	35.0	35.9	38.1	40.4
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H60		34.2	34.0	35.1	37.7	40.2
H61		34.4	34.2	35.3	37.8	40.3
H62		34.6	34.5	35.5	37.9	40.3

H64 Valdarmon Hill		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0061x^3 + 0.1743x^2 + 0.8289x + 18.421$	28.4	30.7	33.1	35.6	38
SA EPA Criteria		35.0	35.7	38.1	40.6	43.0
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H64		26.7	25.8	35.0	39.4	42.6
H65		27.2	26.6	35.1	39.4	42.6

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H66 Little Vale		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0074x^3 + 0.2965x^2 - 1.5459x + 25.005$	24.8	26.2	27.8	29.7	31.8
SA EPA Criteria		35.0	35.0	35.0	35.0	36.8
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H64		34.9	34.9	34.9	34.9	36.8
H65		35.0	34.9	34.9	35.0	36.8

H70 Snowgums		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0194x^3 + 0.639x^2 - 4.0664x + 31.611$	26.0	27.8	30.0	32.6	35.4
SA EPA Criteria		35.0	35.0	35.0	37.6	40.4
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H68		31.6	30.3	30.6	36.1	39.9
H69		30.8	28.7	29.2	35.8	39.8
H70		25.0	25.0	25.0	27.6	30.4

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H71 Lyncross		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0118x^3 + 0.381x^2 - 1.4234x + 25.263$	27.9	29.9	32.2	34.7	37.3
SA EPA Criteria		35.0	35.0	37.2	39.7	42.3
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H71		31.9	30.7	35.2	38.9	42.0
H72		32.8	32.2	35.8	39.1	42.1
H73		33.3	32.8	36.1	39.2	42.1
H74		34.4	34.3	36.8	39.5	42.2
H75		34.3	34.2	36.7	39.5	42.2
H76		34.6	34.6	37.0	39.6	42.3
H81		34.6	34.5	36.9	39.6	42.3
H82		34.2	34.0	36.6	39.4	42.2
H109		34.5	34.3	36.8	39.5	42.3
H110		34.6	34.5	36.9	39.6	42.3
H112		35.0	35.0	37.2	39.7	42.3
H115		34.8	34.8	37.1	39.6	42.3
H116		34.9	34.8	37.1	39.7	42.3

H79 Leeston		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = 0.001x^3 - 0.053x^2 + 2.4941x + 19.177$	32.4	34.4	36.2	38.0	39.8
SA EPA Criteria		37.4	39.4	41.2	43.0	44.8
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H63		36.9	38.9	41.0	42.9	44.7
H79		36.1	38.3	40.6	42.7	44.6
H80		37.1	39.1	41.1	42.9	44.7

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H106 Rosdale		6 m/s	7 m/s	8 m/s	9 m/s	10 m/s
Background Noise Regression Line	$y = -0.0085x^3 + 0.2644x^2 - 0.8076x + 32.476$	35.3	36.9	38.6	40.4	42.3
SA EPA Criteria		40.3	41.9	43.6	45.4	47.3
<i>Wind Speed</i>	<i>(Hub Height)</i>	8.2	9.6	10.9	12.3	13.7
H103		40.3	41.9	43.6	45.4	47.3
H104		39.7	41.4	43.3	45.3	47.3
H105		40.0	41.6	43.4	45.3	47.3
H106		40.1	41.7	43.5	45.4	47.3
H107		40.1	41.7	43.5	45.4	47.3
H108		40.1	41.7	43.5	45.4	47.3
H113		40.3	41.9	43.6	45.4	47.3
H114		40.3	41.9	43.6	45.4	47.3