APPENDIX 11-5

SOUND POWER LEVELS OF OTHER WIND FARMS

Table 11-5A Sound Power Level Spectra Used for Prediction Model – Aught Wind Farm – 65m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	71.3	80.2	85.5	85	84.1	81.1	74.5	62.1	90.8
5	74.1	83	88.3	87.8	86.9	83.9	77.3	64.9	93.6
6	79.3	88.2	93.5	93	92.1	89.1	82.5	70.1	98.8
7	81.9	90.8	96.1	95.6	94.7	91.7	85.1	72.7	101.4
8	83.6	92.5	97.8	97.3	96.4	93.4	86.8	74.4	103.1
≥9	85	93.9	99.2	98.7	97.8	94.8	88.2	75.8	104.5

Table 11-5B Sound Power Level Spectra Used for Prediction Model – Carrowglen Wind Farm – 74.4m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	79.5	88.4	93.7	93.2	92.3	89.3	82.7	70.3	99.0
5	79.5	88.4	93.7	93.2	92.3	89.3	82.7	70.3	99.0
6	82.7	91.6	96.9	96.4	95.5	92.5	85.9	73.5	102.2
7	85.4	94.3	99.6	99.1	98.2	95.2	88.6	76.2	104.9
8	86.4	95.3	100.6	100.1	99.2	96.2	89.6	77.2	105.9
≥9	86.5	95.4	100.7	100.2	99.3	96.3	89.7	77.3	106.0

Table 11-5C Sound Power Level Spectra Used for Prediction Model – Crockahenny Wind Farm – 40m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	76.4	85.3	90.6	90.1	89.2	86.2	79.6	67.2	95.9
5	78	86.9	92.2	91.7	90.8	87.8	81.2	68.8	97.5
6	79.6	88.5	93.8	93.3	92.4	89.4	82.8	70.4	99.1
7	81.2	90.1	95.4	94.9	94	91	84.4	72	100.7
8	82.8	91.7	97	96.5	95.6	92.6	86	73.6	102.3
≥9	83.5	92.4	97.7	97.2	96.3	93.3	86.7	74.3	103.0

Table 11-5D Sound Power Level Spectra Used for Prediction Model – Flughland Wind Farm – 64m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	71.3	80.2	85.5	85	84.1	81.1	74.5	62.1	90.8
5	74.1	83	88.3	87.8	86.9	83.9	77.3	64.9	93.6
6	79.3	88.2	93.5	93	92.1	89.1	82.5	70.1	98.8
7	81.9	90.8	96.1	95.6	94.7	91.7	85.1	72.7	101.4
8	83.6	92.5	97.8	97.3	96.4	93.4	86.8	74.4	103.1
≥9	85	93.9	99.2	98.7	97.8	94.8	88.2	75.8	104.5

Table 11-5E Sound Power Level Spectra Used for Prediction Model – Glockmore 1 Wind Farm – 64m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	71.3	80.2	85.5	85	84.1	81.1	74.5	62.1	90.8
5	74.1	83	88.3	87.8	86.9	83.9	77.3	64.9	93.6
6	79.3	88.2	93.5	93	92.1	89.1	82.5	70.1	98.8
7	81.9	90.8	96.1	95.6	94.7	91.7	85.1	72.7	101.4
8	83.6	92.5	97.8	97.3	96.4	93.4	86.8	74.4	103.1
≥9	85	93.9	99.2	98.7	97.8	94.8	88.2	75.8	104.5

Table 11-5E Sound Power Level Spectra Used for Prediction Model – Glockmore 2 Wind Farm – 78m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	76.8	85.7	91	90.5	89.6	86.6	80	67.6	96.3
5	76.8	85.7	91	90.5	89.6	86.6	80	67.6	96.3
6	81.2	90.1	95.4	94.9	94	91	84.4	72	100.7
7	83.8	92.7	98	97.5	96.6	93.6	87	74.6	103.3
8	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0
≥9	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0

Table 11-5E Sound Power Level Spectra Used for Prediction Model – Sorne Hill Wind Farm – 64m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	71.3	80.2	85.5	85	84.1	81.1	74.5	62.1	90.8
5	74.1	83	88.3	87.8	86.9	83.9	77.3	64.9	93.6
6	79.3	88.2	93.5	93	92.1	89.1	82.5	70.1	98.8
7	81.9	90.8	96.1	95.6	94.7	91.7	85.1	72.7	101.4
8	83.6	92.5	97.8	97.3	96.4	93.4	86.8	74.4	103.1
≥9	85	93.9	99.2	98.7	97.8	94.8	88.2	75.8	104.5

Table 11-5E Sound Power Level Spectra Used for Prediction Model – Colpey Wind Farm – 84m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	73.3	78.9	85	88.2	89.4	90	85.4	72.1	95.2
5	75.6	79.9	87.1	92.1	93.7	93.3	88.2	74.3	98.7
6	81.7	85.8	91.2	95.5	98	97.2	93.2	79.6	102.8
7	81.7	87.7	92.1	96.4	98.7	97.6	92.7	79.4	103.4
8	82.8	89.1	92.8	96.9	99.6	98.5	93.5	79.9	104.2
≥9	82.6	89.3	91.9	96	100.1	99.5	93.7	79.1	104.5

Table 11-5E Sound Power Level Spectra Used for Prediction Model – McCarron Wind Farm – 80m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	78	86.9	92.2	91.7	90.8	87.8	81.2	68.8	97.5
5	81.5	90.4	95.7	95.2	94.3	91.3	84.7	72.3	101.0
6	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0
7	85.5	94.4	99.7	99.2	98.3	95.3	88.7	76.3	105.0

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
8	86	94.9	100.2	99.7	98.8	95.8	89.2	76.8	105.5
≥9	86	94.9	100.2	99.7	98.8	95.8	89.2	76.8	105.5

Table 11-5E Sound Power Level Spectra Used for Prediction Model – Malkell Wind Farm – 78m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	76.8	85.7	91	90.5	89.6	86.6	80	67.6	96.3
5	76.8	85.7	91	90.5	89.6	86.6	80	67.6	96.3
6	81.2	90.1	95.4	94.9	94	91	84.4	72	100.7
7	83.8	92.7	98	97.5	96.6	93.6	87	74.6	103.3
8	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0
≥9	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0

Table 11-5E Sound Power Level Spectra Used for Prediction Model – Meenkragh 3 Wind Farm – 55m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	77.1	86	91.3	90.8	89.9	86.9	80.3	67.9	96.6
5	78.6	87.5	92.8	92.3	91.4	88.4	81.8	69.4	98.1
6	80.1	89	94.3	93.8	92.9	89.9	83.3	70.9	99.6
7	81.6	90.5	95.8	95.3	94.4	91.4	84.8	72.4	101.1
8	83.1	92	97.3	96.8	95.9	92.9	86.3	73.9	102.6
≥9	83.5	92.4	97.7	97.2	96.3	93.3	86.7	74.3	103.0

Table 11-5E Sound Power Level Spectra Used for Prediction Model – Meenkragh 4 Wind Farm – 85m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	76.8	85.7	91	90.5	89.6	86.6	80	67.6	96.3

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
5	77.1	86	91.3	90.8	89.9	86.9	80.3	67.9	96.6
6	81.5	90.4	95.7	95.2	94.3	91.3	84.7	72.3	101.0
7	84	92.9	98.2	97.7	96.8	93.8	87.2	74.8	103.5
8	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0
≥9	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0

Table 11-5E Sound Power Level Spectra Used for Prediction Model – Three Trees Wind Farm – 78m Hub Height

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								dB L_{WA}
	63	125	250	500	1000	2000	4000	8000	
4	76.8	85.7	91	90.5	89.6	86.6	80	67.6	96.3
5	76.8	85.7	91	90.5	89.6	86.6	80	67.6	96.3
6	81.2	90.1	95.4	94.9	94	91	84.4	72	100.7
7	83.8	92.7	98	97.5	96.6	93.6	87	74.6	103.3
8	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0
≥9	84.5	93.4	98.7	98.2	97.3	94.3	87.7	75.3	104.0