

## Technical Appendix 15.2: Sound Power Levels and Cumulative Noise Levels

### Introduction

A15.2.1 The following tables (A15.2.1 – 4) present the noise emission data for each assessed cumulative development, including the adjustments made in accordance with the methodology described in paragraph 15.5.13 of the Environmental Impact Assessment Report (EIA Report).

### Achany Wind Farm

**Table A15.2.1: Manufacturer's Noise Emission Data – Repower MM82, 59m Hub Height**

	Standardised 10m Wind Speed, m/s								
	4	5	6	7	8	9	10	11	12
	Sound Power Level, dB(A)								
Sound Power Level, dB, LWA, inc. 2dB allowance for uncertainty	95.5	101.2	105.3	106.0	106.0	106.0	106.0	106.0	106.0
Noise Limits at Controlling Property (Durcha-250013, 902464)	37.0	39.0	40.0	42.0	44.0	45.0	47.0	48.0	50.0
Predicted Noise Level at Controlling Property (Durcha)	23.4	29.1	33.2	33.9	33.9	33.9	33.9	33.9	33.9
Additional Adjustment for Cumulative Assessment, dB	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
<b>Adjusted Sound Power Level, dB LWA, for cumulative assessment</b>	<b>97.5</b>	<b>103.2</b>	<b>107.3</b>	<b>108.0</b>	<b>108.0</b>	<b>108.0</b>	<b>108.0</b>	<b>108.0</b>	<b>108.0</b>

**Table A15.2.2: Manufacturer's Noise Emission Data – Repower MM82**

	Octave-band Centre Frequency, f, Hz							
	63	125	250	500	1000	2000	4000	8000
	Sound Power Level, dB, LWA							
Octave-band Spectrum scaled to 108.0dB, LWA	89.9	96.2	101	103.2	102.3	97.6	92.7	79.4

**Rosehall Wind Farm****Table A15.2.3: Manufacturer's Noise Emission Data – Siemens SWT-1.3-62, 59m Hub Height**

	Standardised 10m Wind Speed, m/s								
	4	5	6	7	8	9	10	11	12
	Sound Power Level, dB(A)								
Sound Power Level, dB, LWA, inc. 2 dB allowance for uncertainty	103.0	103.5	104.0	104.5	105.0	106.3	107.5	108.8	110.1
Noise Limits at Controlling Property (Durcha - 250013, 902464)	37.0	39.0	40.0	42.0	44.0	45.0	47.0	48.0	50.0
Predicted Noise Level at Controlling Property (Durcha)	33.4	33.9	34.4	34.9	35.4	36.7	37.9	39.2	40.5
Additional Adjustment for Cumulative Assessment, dB	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
<b>Adjusted Sound Power Level, dB LWA, for cumulative assessment</b>	<b>105.0</b>	<b>105.5</b>	<b>106.0</b>	<b>106.5</b>	<b>107.0</b>	<b>108.3</b>	<b>109.5</b>	<b>110.8</b>	<b>112.1</b>

**Table A15.2.4: Manufacturer's Noise Emission Data – Siemens SWT-1.3-62**

	Octave-band Centre Frequency, f, Hz							
	63	125	250	500	1000	2000	4000	8000
	Sound Power Level, dB, LWA							
Octave-band Spectrum scaled to 112.1dB, LWA	96.2	102.8	105.7	104.8	104.7	105.0	99.4	91.2