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## APPENDIX 12-9

**BASELINE NOISE SURVEY FOR  
GRID CONNECTION**

## APPENDIX 12-9. BASELINE NOISE SURVEY FOR GRID CONNECTION

An environmental noise survey was conducted at five locations in order to quantify the existing noise environment in the vicinity of the Proposed Grid Connection. The survey was conducted in general accordance with ISO 1996: 2017: Acoustics – Description, measurement and assessment of environmental noise.

### Noise Measurement Locations

The noise measurement locations were selected to represent the noise environment at the NSLs along the Proposed Grid Connection.

The noise measurement locations for this survey are described below and illustrated in Figure 12-9-1.

**Table A12-9-1 Noise Measurement Locations Coordinates**

Name	ITM Coordinates	
	N	E
N1	559560	730476
N2	556232	730951
N3	552164	730434
N4	546902	730601
N5	544934	727952

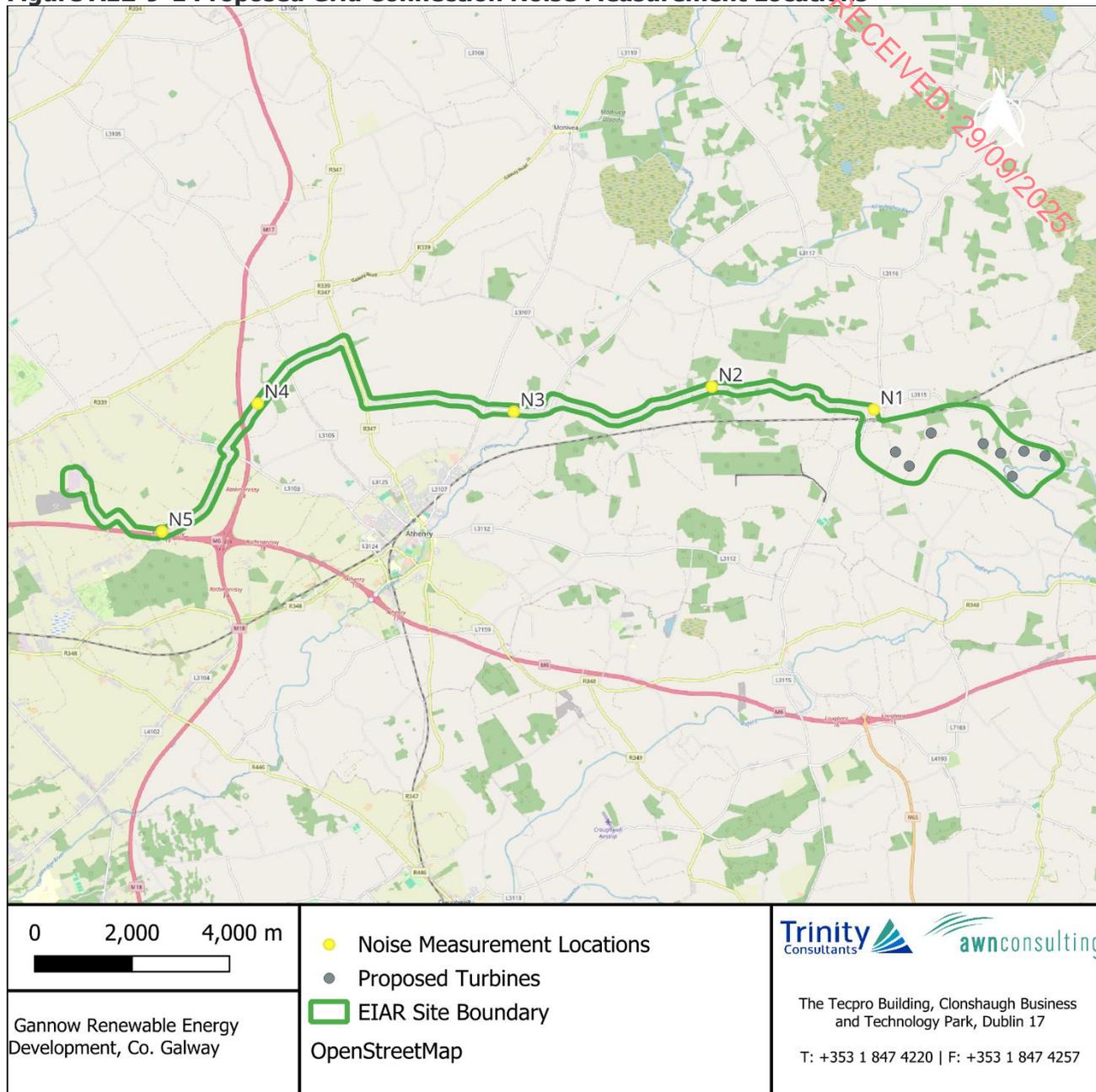
### Personnel and Instrumentation

The noise survey was undertaken by AWN Consulting using Rion NL-52 and Rion NL-53 sound level meters and were calibrated using Rion NC-75 and Bruel & Kjaer 4231 type calibrators. The specific equipment details are summarised in Table 2-2.

**Table A12-9-2. Noise Monitoring Equipment**

Type	Manufacturer	Equipment Model	Serial Number	Calibration Date
Sound Level Meter	Bruel & Kjaer	2250	2199217	22/11/2023
Calibrator	Bruel & Kjaer	Type 4231	2615338	28/11/2024

**Figure A12-9-1 Proposed Grid Connection Noise Measurement Locations**



## Survey Results

The survey results for the attended measurement locations are presented in Table A12-9-3.

**Table A12-9-3. Attended Noise Measurement Results**

Location	Date	Period	Time	Measured Noise Levels (dB re.2010-5Pa)	
				L <sub>Aeq</sub>	L <sub>A90</sub>
N1	02/07/2025	Day	10:55	61	38
			13:50	61	38
			16:00	54	35
N2	02/07/2025	Day	11:20	58	34
			14:12	61	35
			16:20	54	35
N3	02/07/2025	Day	11:42	62	37
			14:34	60	36
			16:44	60	36
N4	02/07/2025	Day	12:15	50	43
			15:02	50	46
			17:14	52	48
N5	02/07/2025	Day	12:47	60	56
			15:23	60	57
			17:37	61	58

### 1.1.1.1 Location N1

Local road traffic was the dominant source of noise at location N1 across the three daytime monitoring periods. Other noise sources noted were birdsong, horses, foliage rustling and yard noise. Ambient daytime noise levels were measured in the range of 54 to 61 dB L<sub>Aeq, 15min</sub>. Background daytime noise levels were in the range 35 to 38 dB L<sub>A90, 15min</sub>.

### 1.1.1.2 Location N2

Birdsong, horses, foliage rustling, yard noise were the dominant source of noise at location N2 across the three daytime monitoring periods. Other noise sources noted were intermittent local road traffic and occasional tractor noise and grinder noise. Ambient daytime noise levels were measured in the range of 54 to 61 dB L<sub>Aeq, 15min</sub>. Background daytime noise levels were in the range 34 to 35 dB L<sub>A90, 15min</sub>.

### 1.1.1.3 Location N3

Birdsong, horses, foliage rustling and distant air traffic were the dominant source of noise at location N3 across the three daytime monitoring periods. Other noise sources noted were intermittent local road traffic and occasional farm work related noise. Ambient daytime noise levels were measured in the range of 60 to 62 dB L<sub>Aeq, 15min</sub>. Background daytime noise levels were in the range 36 to 37 dB L<sub>A90, 15min</sub>.

#### **1.1.1.4 Location N4**

Birdsong, horses and distant road traffic were the dominant source of noise at location N4 across the three daytime monitoring periods. Ambient daytime noise levels were measured in the range of 50 to 52 dB  $L_{Aeq, 15min}$ . Background daytime noise levels were in the range 43 to 48 dB  $L_{A90, 15min}$ .

#### **1.1.1.5 Location N5**

Road traffic was the dominant source of noise at location N5 across the three daytime monitoring periods. Other noise sources noted were birdsong, and foliage rustling. Ambient daytime noise levels were measured in the range of 60 to 61 dB  $L_{Aeq, 15min}$ . Background daytime noise levels were in the range 56 to 58 dB  $L_{A90, 15min}$ .

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