

**Netherton Hub 400 kV OHL Connection to New
Deer and Peterhead: Tie-In
Environmental Appraisal Report
Volume 3 Appendix 11.5 – Baseline Noise Levels**

July 2026



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1. APPENDIX 11.5 – BASELINE NOISE LEVELS

1.1 Introduction

- 1.1.1 This Appendix presents the baseline noise levels of the existing environment following the campaign of background noise monitoring carried out between 15 January 2026 to 5 February 2026. This Appendix is meant to be read in conjunction with **Chapter 11: Noise Environment (Volume 1)**.
- 1.1.2 Continuous 15-minute sound level measurements were taken at five measurement locations for the duration of the survey. Four locations are representative of the background of the nearest noise sensitive receptors, LT1 to LT4. LT5 was used to monitor the existing noise level underneath the existing New Deer OHL. The measurement locations are presented in **Figure 11.3: Noise Monitoring Locations (Volume 2)**.
- 1.1.3 In addition to this, meteorological data was monitored throughout the measurement period via a locally installed weather station at LT3. 15-minute periods where the windspeed exceeded 5 m/s, and rainfall was captured were excluded from the data analysis and tabulated level herein. **Table 2.1 to Table 2.5** present a summary of the measured sound levels captured at each measurement location.
- 1.1.4 **Plate 3.1 to Plate 3.5** present the time history of the continuous noise measurements undertaken at each location.

2. SUMMARY OF MEASURED DATA

Table 2.1: Summary of Measured Sound Levels at LT1: All Days, Weekdays and Weekends

	Background Sound level, dB LA90, T		Ambient Sound Level, dB, LAeq, T		Maximum Sound Level, dB LAfmax	
	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)
Range	20 - 50	18 - 49	21 - 61	19 - 59	31 - 79	23 - 75
25th percentile	27	21	40	26	64	39
Arithmetic Average	30	29	43	35	65	49
Log Average	-	-	49	49	-	-

Table 2.2: Summary of Measured Sound Levels at LT2: All Days, Weekdays and Weekends

	Background Sound level, dB LA90, T		Ambient Sound Level, dB, LAeq, T		Maximum Sound Level, dB LAfmax	
	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)
Range	24 - 50	23 - 49	26 - 58	24 - 57	35 - 81	29 - 80
25th percentile	29	25	36	26	52	38
Arithmetic Average	32	30	40	35	58	49
Log Average	-	-	47	47	-	-

Table 2.3: Summary of Measured Sound Levels at LT3: All Days, Weekdays and Weekends

	Background Sound level, dB LA90, T		Ambient Sound Level, dB, LAeq, T		Maximum Sound Level, dB LAfmax	
	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)
Range	24 - 63	23 - 62	26 - 72	24 - 70	33 - 87	28 - 90
25th percentile	29	24	46	28	66	42
Arithmetic Average	35	33	50	40	69	56
Log Average	-	-	61	61	-	-

Table 2.4: Summary of Measured Sound Levels at LT4: All Days, Weekdays and Weekends

	Background Sound level, dB LA90, T		Ambient Sound Level, dB, LAeq, T		Maximum Sound Level, dB LAfmax	
	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)
Range	21 - 58	19 - 58	24 - 63	21 - 62	33 - 85	28 - 75
25th percentile	30	24	36	28	50	39
Arithmetic Average	36	33	44	37	59	49
Log Average	-	-	53	53	-	-

Table 2.5: Summary of Measured Sound Levels at LT5 - All Days, Weekdays and Weekends

	Background Sound level, dB LA90, T		Residual Sound Level, dB, LAeq, T		Maximum Sound Level, dB LAfmax	
	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)	Daytime (07:00 – 23:00)	Night-time (23:00 – 07:00)
Range	29 - 58	28 - 57	33 - 63	30 - 63	36 - 90	34 - 86
25th percentile	35	36	50	38	71	44
Arithmetic Average	40	41	53	45	75	56
Log Average	-	-	56	53	-	-

3. TIME HISTORY OF MEASURED SOUND LEVELS

Plate 3.1: LT1 Time History

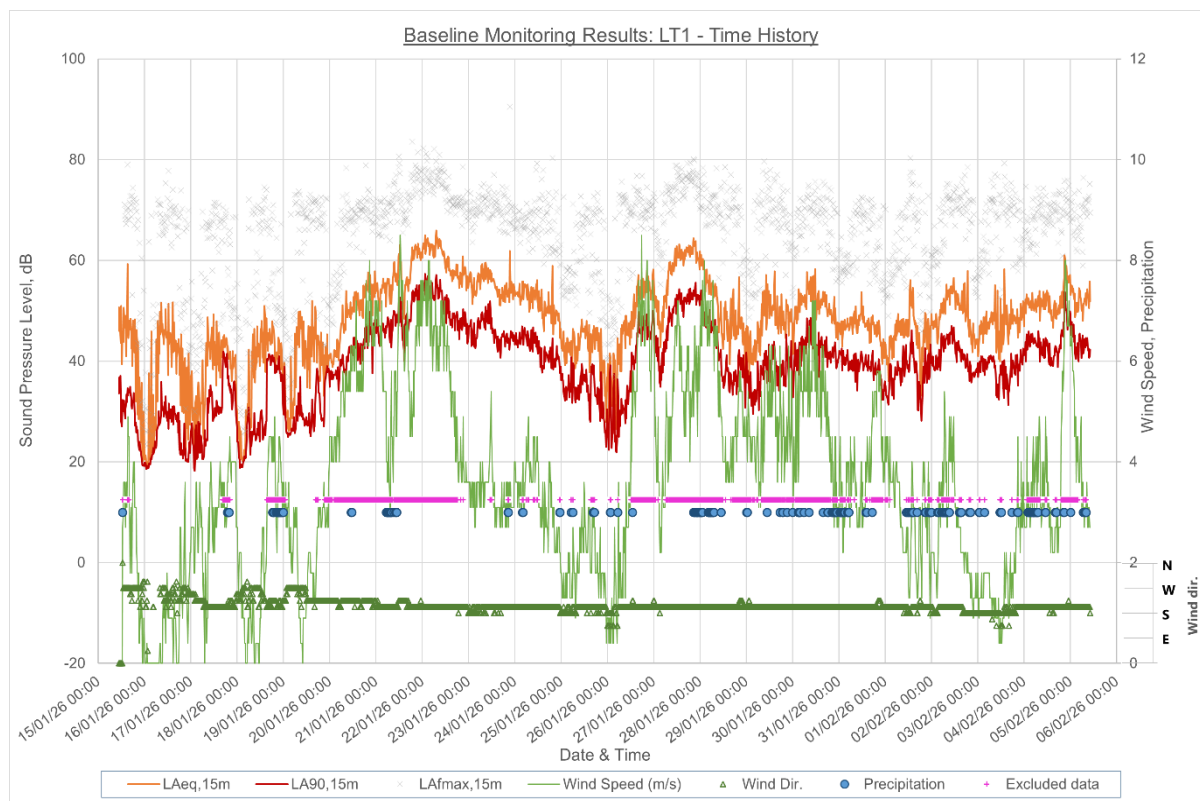


Plate 3.2: LT2 Time History

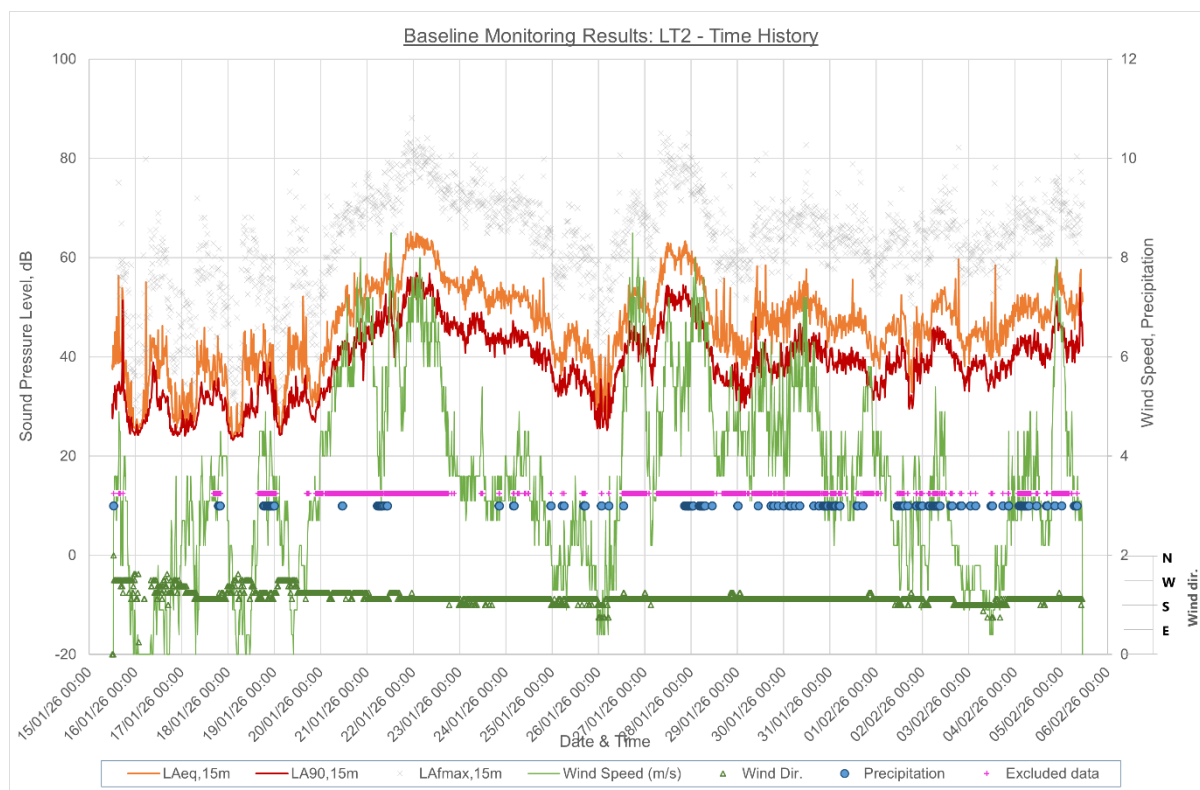


Plate 3.3: LT3 Time History

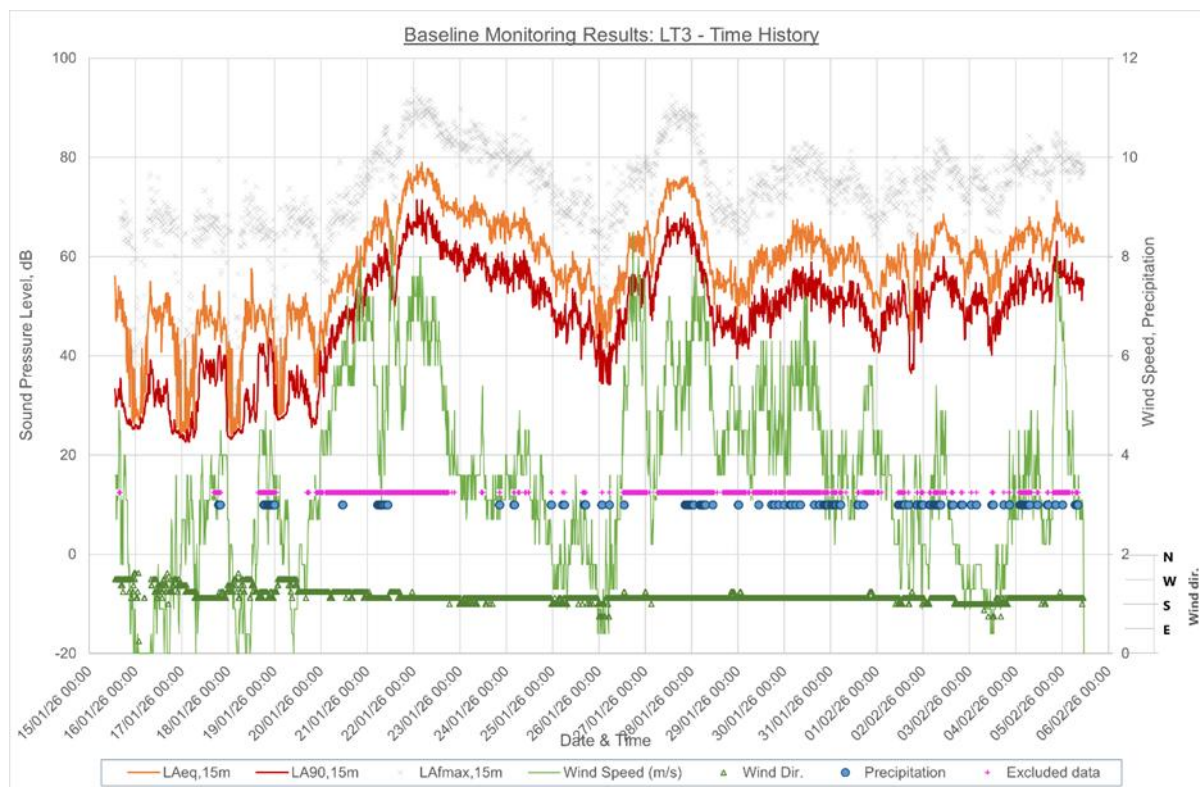


Plate 3.4: LT5 Time History

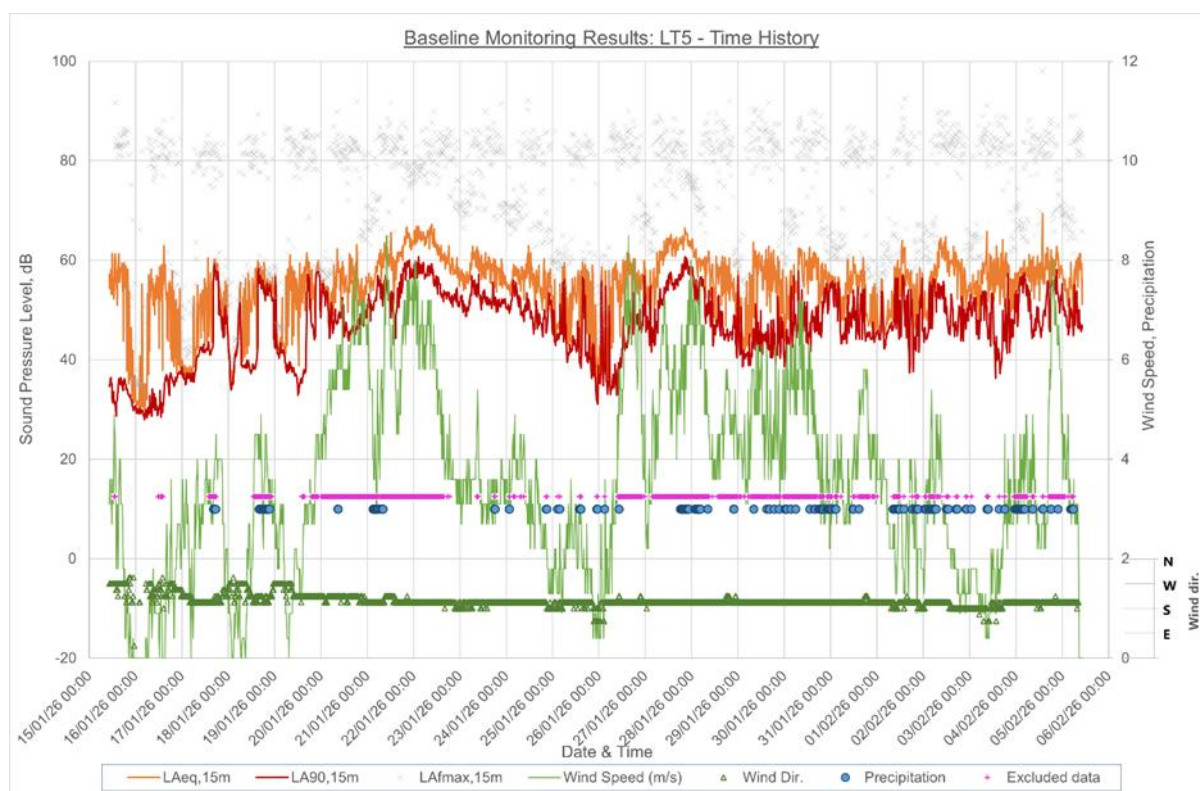


Plate 3.5: LT4 Time History

