
EAST YORKSHIRE SOLAR FARM

**East Yorkshire Solar Farm
EN010143**

Environmental Statement

**Volume 2, Appendix 11-3: Baseline Noise Survey
Document Reference: EN010143/APP/6.2**

Regulation 5(2)(a)
Infrastructure Planning (Applications: Prescribed Forms and Procedure)
Regulations 2009

November 2023
Revision Number: 00

2009

BOOM-POWER.CO.UK

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Prepared for:

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1. Introduction

- 1.1.1 This Appendix presents the methodology and results of the baseline noise monitoring carried out to inform the construction and operational noise assessments. Noise monitoring locations were determined based on the Site location with respect to nearby noise-sensitive receptors.
- 1.1.2 A number of other factors were also taken into consideration when identifying these locations, including:
- a. Safety of the surveyors;
 - b. Security of monitoring equipment; and
 - c. Site accessibility.

2. Noise Monitoring Methodology

- 2.1.1 Baseline noise monitoring was carried out to establish the existing noise climate in the area around the Site. The monitoring procedures followed guidance from British Standards (BS) 7445-1:2003 Description and measurement of environmental noise – Part 1: Guide to quantities and procedures and BS 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound. Acoustic field calibrators were applied to each instrument at the start and end of each measurement to check the calibration levels.
- 2.1.2 Each unattended sound level meter was housed within a weatherproof box with batteries to power the instrument for the full measurement duration. Appropriate outdoor all-weather equipment was used on all microphones. All noise measurements included LAeq, LA90, and LAFmax sound level indicators over 1-hour contiguous periods.

3. Meteorological Conditions

- 3.1.1 A weather station was set up at one location during each tranche of monitoring. The weather station measurement included windspeed (m/s), wind direction, rainfall (mm), and temperature (°C). Periods of wind higher than 5 m/s have been excluded from the analysis and are detailed in Section 4.

4. Survey Results

- 4.1.1 The baseline noise monitoring results of unattended measurements are presented in **Table 4-2** to **Table 4-17**. **Table 4-1** presents the dates of noise monitoring and any reasoning for excluded data during the relevant measurement period. Data has been excluded from the overall averaging of results at locations where adverse weather, atypical data (anomalous spikes in noise data that are likely due to activity in the immediate area to the noise monitor) and school holidays were experienced.

Table 4-1. Noise Monitoring Dates

Monitor Location	Start date	End Date	Excluded data
N1	18/01/2023	25/01/2023	
N2	25/01/2023	01/02/2023	Adverse weather / atypical values
N3	08/02/2023	14/02/2023	School holidays
N4	25/01/2023	01/02/2023	Adverse weather
N5	08/02/2023	13/02/2023	School holidays
N6	25/01/2023	31/01/2023	
N7	18/01/2023	25/01/2023	
N8	18/01/2023	24/01/2023	
N9	25/01/2023	01/02/2023	
N10	01/02/2023	08/02/2023	
N11	08/02/2023	14/02/2023	School holidays
N12	18/01/2023	25/01/2023	
N13	01/02/2023	08/02/2023	
N14	01/02/2023	08/02/2023	Atypical data
N15	18/01/2023	24/01/2023	
N16	18/01/2023	24/01/2023	

Results – N1

Table 4-2. N1 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 18/01/2023	53	42	41	35	29	26
Thu 19/01/2023	49	43	37	36	32	29
Fri 20/01/2023	50	43	34	35	28	25
Sat 21/01/2023	48	46	33	32	27	27
Sun 22/01/2023	48	40	41	32	26	26
Mon 23/01/2023	50	47	42	34	30	31
Tue 24/01/2023	51	43	41	39	30	29
Wed 25/01/2023	53	-	-	40	-	-
Arithmetic Average	50	44	38	35	29	27

Results – N2

Table 4-3. N2 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 25/01/2023	50	45	35	34	28	24
Thu 26/01/2023	51	42	37	33	28	23
Fri 27/01/2023	50	41	34	29	21	21
Sat 28/01/2023	48	35	-	30	22	-
Arithmetic Average	50	41	35	31	25	23

Results – N3

Table 4-4. N3 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 08/02/2023	44	35	36	36	31	27
Thu 09/02/2023	45	39	41	37	31	30
Fri 10/02/2023	48	48	38	39	38	28
Sat 11/02/2023	46	29	36	34	23	20
Sun 12/02/2023	43	26	43	27	24	25
Average	45	35	38	33	29	26

Results – N4

Table 4-5. N4 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 25/01/2023	46	41	30	29	26	24
Thu 26/01/2023	55	45	32	31	26	25
Fri 27/01/2023	45	41	29	27	20	23
Sat 28/01/2023	46	38	-	28	23	-
Average	48	41	30	29	24	24

Results – N5

Table 4-6. N5 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 08/02/2023	41	36	33	37	31	26
Thu 09/02/2023	49	38	38	34	29	30
Fri 10/02/2023	49	46	37	38	31	26
Sat 11/02/2023	43	23	31	30	20	20
Sun 12/02/2023	43	34	36	35	28	29
Average	45	35	35	35	28	26

Results – N6

Table 4-7. N6 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 18/01/2023	43	37	39	39	35	36
Thu 19/01/2023*	-*	-*	-*	-*	-*	-*
Fri 20/01/2023	40	32	36	33	30	34
Sat 21/01/2023	41	35	39	33	32	36
Average	41	34	38	34	32	35

*Excluded due to unsuitable weather

Results – N7

Table 4-8. N7 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 18/01/2023	49	42	39	42	37	34
Thu 19/01/2023	59	42	37	40	36	33
Fri 20/01/2023	50	42	36	37	32	30
Sat 21/01/2023	50	43	37	36	33	32
Sun 22/01/2023	50	46	44	38	38	37
Mon 23/01/2023	54	44	40	41	35	35

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Tue 24/01/2023	57	49	51	47	43	44
Wed 25/01/2023	55	-	-	48	-	-
Average	53	44	40	41	36	35

Results – N8

Table 4-9. N8 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 18/01/2023	45	50	28	32	28	22
Thu 19/01/2023	41	37	32	30	27	26
Fri 20/01/2023	42	35	29	34	29	24
Sat 21/01/2023	35	30	28	29	27	25
Sun 22/01/2023	42	29	30	30	26	25
Mon 23/01/2023	45	33	32	34	27	27
Tue 24/01/2023	41	33	26	31	24	22
Average	42	35	29	32	27	25

Results – N9

Table 4-10. N9 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 25/01/2023	57	49	46	33	29	29
Thu 26/01/2023	58	51	45	34	29	29
Fri 27/01/2023	56	48	42	32	25	28
Sat 28/01/2023	54	49	39	31	29	29
Sun 29/01/2023	52	46	47	34	35	35
Mon 30/01/2023	56	48	46	35	32	33
Tue 31/01/2023	56	50	48	43	38	38
Wed 01/02/2023	56	-	-	46	-	-
Average	56	49	45	36	31	31

Results – N10

Table 4-11. N10 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 01/02/2023	58	53	54	47	39	40
Thu 02/02/2023	59	55	56	50	45	48
Fri 03/02/2023	59	54	51	48	30	28

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Sat 04/02/2023	58	51	45	44	36	27
Sun 05/02/2023	57	55	56	42	28	34
Mon 06/02/2023	60	56	54	48	30	36
Tue 07/02/2023	58	56	56	46	31	34
Wed 08/02/2023	60	-	-	53	-	-
Average	58	54	53	46	34	35

Results – N11

Table 4-12. N11 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 08/02/2023	48	43	37	37	33	26
Thu 09/02/2023	45	44	38	35	29	27
Fri 10/02/2023	47	43	37	38	33	25
Sat 11/02/2023	46	41	36	33	23	19
Sun 12/02/2023	45	41	34	29	27	26
Average	46	42	36	34	29	25

Results – N12

Table 4-13. N12 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 18/01/2023	48	50	41	31	28	25
Thu 19/01/2023	51	46	40	34	32	27
Fri 20/01/2023	48	45	36	35	37	30
Sat 21/01/2023	47	44	36	37	30	33
Sun 22/01/2023	48	39	41	38	33	33
Mon 23/01/2023	52	49	42	40	34	32
Tue 24/01/2023	51	49	44	39	30	26
Wed 25/01/2023	52	-	-	38	-	-
Average	50	46	40	36	32	29

Results – N13

Table 4-14. N13 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 01/02/2023	55	49	49	47	41	40
Thu 02/02/2023	55	53	56	48	45	48
Fri 03/02/2023	55	47	44	45	35	32

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Sat 04/02/2023	52	46	38	44	34	28
Sun 05/02/2023	49	48	50	40	34	39
Mon 06/02/2023	56	50	49	48	36	40
Tue 07/02/2023	54	51	51	45	39	40
Wed 08/02/2023	56	-	-	51	-	-
Average	54	49	48	45	38	38

Results – N14

Table 4-15. N14 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Sat 04/02/2023	52	46	38	44	34	28
Sun 05/02/2023	49	48	50	40	34	39
Mon 06/02/2023	56	50	49	48	36	40
Tue 07/02/2023	54	51	51	45	39	40
Average	53	49	47	44	36	37

Results – N15

Table 4-16. N15 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 18/01/2023	48	47	39	47	41	40
Thu 19/01/2023	47	42	38	48	45	48
Fri 20/01/2023	46	42	37	45	35	32
Sat 21/01/2023	45	41	36	44	34	28
Sun 22/01/2023	45	39	38	40	34	39
Mon 23/01/2023	48	40	41	48	36	40
Tue 24/01/2023	49	-	-	49	-	-
Average	47	42	38	46	38	38

Results – N16

Table 4-17. N16 Noise Monitoring Results

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Wed 18/01/2023	49	47	42	40	39	39
Thu 19/01/2023	45	45	41	40	41	39
Fri 20/01/2023	49	41	42	42	36	39
Sat 21/01/2023	44	44	45	41	42	43

Date	LAeq,T dB			LA90,T dB		
	07:00-19:00	19:00-23:00	23:00-07:00	07:00-19:00	19:00-23:00	23:00-07:00
Sun 22/01/2023	46	43	41	43	39	39
Mon 23/01/2023	47	44	47	42	42	45
Tue 24/01/2023	47	44	43	43	41	41
Average	47	44	43	42	40	41