

**Fanellan Hub 400 kV Substation and
Converter Station
Environmental Impact Assessment Report
Volume 4 | Technical Appendices**

**Appendix 14.29 – Construction Noise
Assessment of Fanellan Hub**

February 2025



TECHNICAL APPENDIX 14.29: CONSTRUCTION NOISE ASSESSMENT OF FANNELAN HUB

NSR	Shortest distance to geometric centre of site (m)	Site Establishment, Haul Roads & Tower diversion enabling works		Earthworks AC		Earthworks DC		Civils Platform Works		BAM Building Works		M&E Installation and commissioning		Bunding, Landcaping and Removal of Temporary Laydown and Welfare	
		SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance
1	643	56	-9	62	-3	60	-5	60	-5	54	-11	54	-11	54	-11
2	734	57	-8	61	-4	60	-5	60	-5	56	-9	56	-9	56	-9
3	1105	56	-9	59	-6	58	-7	58	-7	56	-9	56	-9	56	-9
4	1456	45	-20	53	-12	51	-14	51	-14	37	-28	39	-26	37	-28
5	823	53	-12	59	-6	58	-7	58	-7	51	-14	51	-14	51	-14
6	409	61	-4	66	1	65	0	65	0	60	-5	60	-5	60	-5
7	531	60	-5	64	-1	63	-2	63	-2	59	-6	59	-6	59	-6
8	1306	48	-17	54	-11	53	-12	53	-12	44	-21	45	-20	44	-21
9	523	60	-5	64	-1	63	-2	63	-2	58	-7	58	-7	58	-7
10	807	56	-9	60	-5	59	-6	59	-6	55	-10	55	-10	55	-10
11	1145	59	-6	61	-4	60	-5	60	-5	59	-6	59	-6	59	-6
12	1178	58	-7	60	-5	59	-6	59	-6	58	-7	58	-7	58	-7
13	1198	59	-6	60	-5	60	-5	60	-5	59	-6	59	-6	59	-6
14	1278	52	-13	56	-9	55	-10	55	-10	51	-14	51	-14	51	-14
15	1285	56	-9	58	-7	57	-8	58	-7	56	-9	56	-9	56	-9

NSR	Shortest distance to geometric centre of site (m)	Site Establishment, Haul Roads & Tower diversion enabling works		Earthworks AC		Earthworks DC		Civils Platform Works		BAM Building Works		M&E Installation and commissioning		Bunding, Landcaping and Removal of Temporary Laydown and Welfare	
		SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance
16	1124	59	-6	60	-5	60	-5	60	-5	59	-6	59	-6	59	-6
17	1287	61	-4	62	-3	62	-3	62	-3	61	-4	61	-4	61	-4
18	1452	56	-9	58	-7	57	-8	57	-8	56	-9	56	-9	56	-9
19	951	56	-9	59	-6	58	-7	59	-6	56	-9	56	-9	56	-9
20	1501	61	-4	61	-4	61	-4	61	-4	61	-4	61	-4	61	-4
21	1538	50	-15	54	-11	53	-12	53	-12	49	-16	49	-16	49	-16
22	1537	60	-5	60	-5	60	-5	60	-5	60	-5	60	-5	60	-5
23	1436	58	-7	59	-6	58	-7	58	-7	57	-8	57	-8	57	-8
24	923	61	-4	62	-3	62	-3	62	-3	60	-5	60	-5	60	-5
25	1450	56	-9	57	-8	57	-8	57	-8	55	-10	55	-10	55	-10
26	1445	60	-5	60	-5	60	-5	60	-5	59	-6	59	-6	59	-6
27	1578	57	-8	58	-7	58	-7	58	-7	57	-8	57	-8	57	-8
28	1618	53	-12	55	-10	54	-11	54	-11	52	-13	52	-13	52	-13
29	1475	59	-6	60	-5	60	-5	60	-5	59	-6	59	-6	59	-6
30	1617	60	-5	61	-4	61	-4	61	-4	60	-5	60	-5	60	-5
31	1689	48	-17	53	-12	51	-14	52	-13	47	-18	47	-18	47	-18
32	1692	48	-17	53	-12	51	-14	52	-13	47	-18	47	-18	47	-18

NSR	Shortest distance to geometric centre of site (m)	Site Establishment, Haul Roads & Tower diversion enabling works		Earthworks AC		Earthworks DC		Civils Platform Works		BAM Building Works		M&E Installation and commissioning		Bunding, Landcaping and Removal of Temporary Laydown and Welfare	
		SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance
33	1477	60	-5	60	-5	60	-5	60	-5	60	-5	60	-5	60	-5
34	1681	62	-3	62	-3	62	-3	62	-3	62	-3	62	-3	62	-3
35	1751	47	-18	52	-13	50	-15	51	-14	45	-20	45	-20	45	-20
36	1474	61	-4	62	-3	62	-3	62	-3	61	-4	61	-4	61	-4
37	1458	58	-7	59	-6	59	-6	59	-6	58	-7	58	-7	58	-7
38	994	60	-5	62	-3	61	-4	61	-4	60	-5	60	-5	60	-5
39	995	60	-5	62	-3	61	-4	61	-4	60	-5	60	-5	60	-5
40	1651	49	-16	53	-12	52	-13	52	-13	47	-18	48	-17	47	-18
41	1211	52	-13	56	-9	55	-10	55	-10	50	-15	50	-15	50	-15
42	1757	46	-19	52	-13	50	-15	50	-15	44	-21	44	-21	44	-21
43	1860	46	-19	51	-14	50	-15	50	-15	44	-21	45	-20	44	-21
44	1185	53	-12	57	-8	56	-9	56	-9	52	-13	52	-13	52	-13
45	1695	48	-17	52	-13	51	-14	51	-14	46	-19	46	-19	46	-19
46	1168	55	-10	57	-8	57	-8	57	-8	54	-11	54	-11	54	-11
47	1794	46	-19	51	-14	50	-15	50	-15	44	-21	44	-21	44	-21
48	1802	46	-19	51	-14	50	-15	50	-15	44	-21	44	-21	44	-21
49	1560	54	-11	56	-9	55	-10	55	-10	54	-11	54	-11	54	-11
50	1306	51	-14	55	-10	54	-11	54	-11	49	-16	50	-15	49	-16

NSR	Shortest distance to geometric centre of site (m)	Site Establishment, Haul Roads & Tower diversion enabling works		Earthworks AC		Earthworks DC		Civils Platform Works		BAM Building Works		M&E Installation and commissioning		Bunding, Landcaping and Removal of Temporary Laydown and Welfare	
		SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance	SPL at Recept or (dB)	Construction Noise Limit Exceedance
51	1810	46	-19	51	-14	50	-15	50	-15	44	-21	44	-21	44	-21
52	1158	59	-6	60	-5	60	-5	60	-5	58	-7	59	-6	58	-7
53	1616	52	-13	55	-10	54	-11	54	-11	51	-14	52	-13	51	-14
54	1719	48	-17	52	-13	51	-14	51	-14	46	-19	46	-19	46	-19
55	1889	54	-11	55	-10	55	-10	55	-10	54	-11	54	-11	54	-11
56	1825	46	-19	51	-14	50	-15	50	-15	44	-21	44	-21	44	-21
57	1707	47	-18	52	-13	51	-14	51	-14	45	-20	45	-20	45	-20
58	1834	46	-19	51	-14	50	-15	50	-15	44	-21	44	-21	44	-21
59	1868	51	-14	53	-12	52	-13	53	-12	50	-15	50	-15	50	-15
60	1676	51	-14	54	-11	53	-12	53	-12	50	-15	50	-15	50	-15
61	1945	49	-16	52	-13	51	-14	52	-13	48	-17	49	-16	48	-17
62	1868	50	-15	53	-12	52	-13	52	-13	49	-16	49	-16	49	-16
63	1848	52	-13	54	-11	54	-11	54	-11	52	-13	52	-13	52	-13
64	1306	56	-9	58	-7	57	-8	57	-8	56	-9	56	-9	56	-9
65	1759	46	-19	51	-14	50	-15	50	-15	43	-22	43	-22	43	-22
66	1735	46	-19	52	-13	50	-15	50	-15	43	-22	43	-22	43	-22
67	1383	59	-6	60	-5	59	-6	60	-5	59	-6	59	-6	59	-6
68	1454	53	-12	56	-9	55	-10	55	-10	53	-12	53	-12	53	-12
69	1754	49	-16	53	-12	52	-13	52	-13	48	-17	48	-17	48	-17
70	1353	60	-5	60	-5	60	-5	60	-5	59	-6	59	-6	59	-6

NSR	Shortest distance to geometric centre of site (m)	Site Establishment, Haul Roads & Tower diversion enabling works		Earthworks AC		Earthworks DC		Civils Platform Works		BAM Building Works		M&E Installation and commissioning		Bunding, Landcaping and Removal of Temporary Laydown and Welfare	
		SPL at Receptor (dB)	Construction Noise Limit Exceedance	SPL at Receptor (dB)	Construction Noise Limit Exceedance	SPL at Receptor (dB)	Construction Noise Limit Exceedance	SPL at Receptor (dB)	Construction Noise Limit Exceedance	SPL at Receptor (dB)	Construction Noise Limit Exceedance	SPL at Receptor (dB)	Construction Noise Limit Exceedance	SPL at Receptor (dB)	Construction Noise Limit Exceedance
71	1833	45	-20	51	-14	50	-15	50	-15	43	-22	43	-22	43	-22
72	1412	53	-12	55	-10	55	-10	55	-10	52	-13	52	-13	52	-13
73	1903	48	-17	52	-13	51	-14	51	-14	47	-18	47	-18	47	-18