

Volume 4: Appendix 10.4 – Operational Noise Impact Assessment

Emmock and Tealing 400 kV Overhead Line Tie-Ins

Environmental Impact Assessment (EIA)

Volume 4 | Appendix 10.4

Operational Noise Impact Assessment

September 2025



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1. OPERATIONAL NOISE IMPACT ASSESSMENT

1.1 Introduction

The purpose of this appendix is to provide the results of the Operational Noise Impact Assessment. Each table provides the results of the Tier 1 TGN(E)322 assessment, including predicted noise levels at each Noise Sensitive Receptor (NSR) during wet conditions, the magnitude of impact that noise level could have, and the significance of that impact on the NSR. For additional context, the distance to the Proposed Development for each NSR is the distance to nearest overhead line that will be operational as part of the Proposed Development.

Two scenarios have been assessed. The first considers the temporary diversions, the second considers the OHLs in their permanent location. The total predicted noise is a sum of the OHLs listed below in each scenario.

Temporary Scenario

- Proposed Alyth-Tealing 275 kV OHL temporary diversion
- Proposed Tealing-Westfield 275 kV OHL temporary diversion
- Existing Alyth-Tealing 275 kV OHL
- Existing Tealing-Westfield 400 kV OHL

Permanent Scenario

- Proposed Alyth-Tealing 400 kV OHL
- Proposed Tealing-Westfield 400 kV OHL
- Tealing-Emmock Tie back West – 275 kV OHL double circuit
- Tealing-Emmock Tie back East – 275 kV OHL single circuit

2. OPERATIONAL NOISE IMPACT ASSESSMENT RESULTS

2.1 Temporary Scenario

Table 10.4.1: TGN(E)322 Tier 1 Result Summary – Temporary Scenario

NSR	Name, if possible	Coordinate (X)	Coordinate (Y)	Distance from Proposed Development	Predicted Wet Noise (dB(A))	Sensitivity	<34 dB(A)	Magnitude	Significance	Action
1	WYNTON WORKS	338277	737020	305	12.3	Medium	Yes	No Effect	Negligible	Acceptable
2	NORTH BALLUDERON FARM	337601	738637	362	9.7	Medium	Yes	No Effect	Negligible	Acceptable
3	1 BALCALK FARM COTTAGES	339723	739039	923	8.3	Medium	Yes	No Effect	Negligible	Acceptable
4	1 PINK COTTAGES	337557	738240	750	8.3	Medium	Yes	No Effect	Negligible	Acceptable
5	BALNUITH	339911	737321	188	13.6	Medium	Yes	No Effect	Negligible	Acceptable
6	SOUTH BALLUDERON	337595	738032	760	8.3	Medium	Yes	No Effect	Negligible	Acceptable
7	NEWLANDHEAD FARMHOUSE	337465	738416	561	8.3	Medium	Yes	No Effect	Negligible	Acceptable
8	HILLSIDE OF PRIESTON	339198	739285	496	8.4	Medium	Yes	No Effect	Negligible	Acceptable
9	PRIESTON FARM	339278	738653	580	8.3	Medium	Yes	No Effect	Negligible	Acceptable
10	BALNUITH COTTAGE	339850	737623	410	8.9	Medium	Yes	No Effect	Negligible	Acceptable
11	HILLSIDE COTTAGE	339132	739372	509	8.3	Medium	Yes	No Effect	Negligible	Acceptable
12	6 BALKEMBACK FARM COTTAGES	338735	738302	681	8.3	Medium	Yes	No Effect	Negligible	Acceptable
13	NORTH BALLUDERON FARM COTTAGE	337382	738599	366	9.6	Medium	Yes	No Effect	Negligible	Acceptable

14	1 BALKEMBACK FARM COTTAGES	339007	738209	653	8.3	Medium	Yes	No Effect	Negligible	Acceptable
15	MYRETON OF CLAVERHOUSE FARM	339689	736704	405	9.3	Medium	Yes	No Effect	Negligible	Acceptable
16	4 BALKEMBACK FARM COTTAGES	338836	738314	672	8.3	Medium	Yes	No Effect	Negligible	Acceptable
17	BALNUITH FARM	339784	737845	562	8.3	Medium	Yes	No Effect	Negligible	Acceptable
18	2 PINK COTTAGES	337547	738234	754	8.3	Medium	Yes	No Effect	Negligible	Acceptable
19	DUNIAN	338323	738277	694	8.3	Medium	Yes	No Effect	Negligible	Acceptable
20	CROSS ROADS COTTAGE	339536	738153	706	8.3	Medium	Yes	No Effect	Negligible	Acceptable
21	5 BALKEMBACK FARM COTTAGES	338746	738304	679	8.3	Medium	Yes	No Effect	Negligible	Acceptable
22	BALKEMBACK FARMHOUSE	339175	738095	532	8.3	Medium	Yes	No Effect	Negligible	Acceptable
23	GAMEKEEPER'S COTTAGE	338576	738504	474	8.5	Medium	Yes	No Effect	Negligible	Acceptable
24	BALNUITH	339812	737880	607	8.3	Medium	Yes	No Effect	Negligible	Acceptable
25	COTTAR HOUSE	339474	738721	722	8.3	Medium	Yes	No Effect	Negligible	Acceptable
26	MYRETON OF CLAVERHOUSE	339499	736740	466	8.6	Medium	Yes	No Effect	Negligible	Acceptable
27	BALNUITH FARM	339824	737915	643	8.3	Medium	Yes	No Effect	Negligible	Acceptable
28	BALNUITH	339840	737789	544	8.3	Medium	Yes	No Effect	Negligible	Acceptable
29	HILLSIDE OF PRIESTON	339086	739367	476	8.5	Medium	Yes	No Effect	Negligible	Acceptable
30	BALNUITH	339816	737897	623	8.3	Medium	Yes	No Effect	Negligible	Acceptable

31	HILLVIEW HOUSE	338795	738306	679	8.3	Medium	Yes	No Effect	Negligible	Acceptable
32	HILLSIDE	339129	739372	507	8.3	Medium	Yes	No Effect	Negligible	Acceptable

2.2 Permanent Scenario

Table 10.4.2: TGN(E)322 Tier 1 Result Summary – Permanent Scenario

NSR	Name, if possible	Coordinate (X)	Coordinate (Y)	Distance from Proposed Development	Predicted Wet Noise (dB(A))	Sensitivity	<34 dB(A)	Magnitude	Significance	Action
1	WYNTON WORKS	338277	737020	305	36	Medium	No	Medium	Moderate	Proceed To Tier 2
2	NORTH BALLUDERON FARM	337601	738637	227	37	Medium	No	Medium	Moderate	Proceed To Tier 2
3	1 BALCALK FARM COTTAGES	339723	739039	1569	13	Medium	Yes	No Effect	Negligible	Acceptable
4	1 PINK COTTAGES	337557	738240	445	30	Medium	Yes	No Effect	Negligible	Acceptable
5	BALNUITH	339911	737321	188	24	Medium	Yes	No Effect	Negligible	Acceptable
6	SOUTH BALLUDERON	337595	738032	479	30	Medium	Yes	No Effect	Negligible	Acceptable
7	NEWLANDHEAD FARMHOUSE	337465	738416	474	29	Medium	Yes	No Effect	Negligible	Acceptable
8	HILLSIDE OF PRIESTON	339198	739285	1453	13	Medium	Yes	No Effect	Negligible	Acceptable
9	PRIESTON FARM	339278	738653	984	19	Medium	Yes	No Effect	Negligible	Acceptable
10	BALNUITH COTTAGE	339850	737623	410	25	Medium	Yes	No Effect	Negligible	Acceptable
11	HILLSIDE COTTAGE	339132	739372	1432	13	Medium	Yes	No Effect	Negligible	Acceptable

12	6 BALKEMBACK FARM COTTAGES	338735	738302	405	31	Medium	Yes	No Effect	Negligible	Acceptable
13	NORTH BALLUDERON FARM COTTAGE	337382	738599	344	33	Medium	Yes	No Effect	Negligible	Acceptable
14	1 BALKEMBACK FARM COTTAGES	339007	738209	476	30	Medium	Yes	No Effect	Negligible	Acceptable
15	MYRETON OF CLAVERHOUSE FARM	339689	736704	405	21	Medium	Yes	No Effect	Negligible	Acceptable
16	4 BALKEMBACK FARM COTTAGES	338836	738314	452	30	Medium	Yes	No Effect	Negligible	Acceptable
17	BALNUITH FARM	339784	737845	562	25	Medium	Yes	No Effect	Negligible	Acceptable
18	2 PINK COTTAGES	337547	738234	457	30	Medium	Yes	No Effect	Negligible	Acceptable
19	DUNIAN	338323	738277	263	36	Medium	No	Medium	Moderate	Proceed To Tier 2
20	CROSS ROADS COTTAGE	339536	738153	706	24	Medium	Yes	No Effect	Negligible	Acceptable
21	5 BALKEMBACK FARM COTTAGES	338746	738304	410	31	Medium	Yes	No Effect	Negligible	Acceptable
22	BALKEMBACK FARMHOUSE	339175	738095	519	30	Medium	Yes	No Effect	Negligible	Acceptable
23	GAMEKEEPER'S COTTAGE	338576	738504	554	27	Medium	Yes	No Effect	Negligible	Acceptable
24	BALNUITH	339812	737880	607	24	Medium	Yes	No Effect	Negligible	Acceptable
25	COTTAR HOUSE	339474	738721	1168	17	Medium	Yes	No Effect	Negligible	Acceptable
26	MYRETON OF CLAVERHOUSE	339499	736740	466	23	Medium	Yes	No Effect	Negligible	Acceptable
27	BALNUITH FARM	339824	737915	643	23	Medium	Yes	No Effect	Negligible	Acceptable
28	BALNUITH	339840	737789	544	24	Medium	Yes	No Effect	Negligible	Acceptable

29	HILLSIDE OF PRIESTON	339086	739367	1389	13	Medium	Yes	No Effect	Negligible	Acceptable
30	BALNUITH	339816	737897	623	24	Medium	Yes	No Effect	Negligible	Acceptable
31	HILLVIEW HOUSE	338795	738306	428	31	Medium	Yes	No Effect	Negligible	Acceptable
32	HILLSIDE	339129	739372	1429	13	Medium	Yes	No Effect	Negligible	Acceptable

Table 10.4.3: TGN(E)322 Tier 2 Result Summary – Permanent Scenario

NSR	Name, if possible	Distance from Proposed Development	Predicted Wet Noise (dB(A))	Predicted Dry Noise (dB(A))	Predicted Combined Wet and Dry Noise (dB(A))	Sensitivity	Magnitude	Significance	Action
1	WYNTON WORKS	305	36.1	11.1	27.2	Medium	Negligible	Negligible	Acceptable
2	NORTH BALLUDERON FARM	227	37.2	12.2	28.2	Medium	Negligible	Negligible	Acceptable
19	DUNIAN	263	35.9	10.9	26.9	Medium	Negligible	Negligible	Acceptable