Appendix 12.4 Operational OHL Noise

12. Operational Overhead Line Noise

12.1.1 The operational noise from the overhead lines (OHLs) has been predicted and reported by Bakerhicks in the following reports. These have been included in this appendix.

- DWNO-MORG-CO-ZZZZOHL-RT-EL-0001-S0-P01 *'Conductor System Assessment for DWNO (Denny – Wishaw Reinforcement)'*
- DWNO-MORG-CO-ZZZZOHL-RT-EL-0012 '*WB Route: NOISE ASSESSMENT IN IDENTIFYING AREAS OF NOISE SENSITIVE RECEPTORS'*
- DWNO-MORG-CO-ZZZZOHL-RT-EL-0013 '*ZG Route: NOISE ASSESSMENT IN IDENTIFYING AREAS OF NOISE SENSITIVE RECEPTORS'*
- DWNO-MORG-CO-ZZZZOHL-RT-EL-0014 'XX *Route: NOISE ASSESSMENT IN IDENTIFYING AREAS OF NOISE SENSITIVE RECEPTORS'*
- DWNO-MORG-CO-ZZZZOHL-RT-EL-0011 'XR *Route: NOISE ASSESSMENT IN IDENTIFYING AREAS OF NOISE SENSITIVE RECEPTORS'*

12.1.2 Additional Tier 3 assessments have been undertaken for stretches of the line that have been identified in these reports. The Tier 3 assessments have been included at the end of this Appendix.

XX Tier 3 assessment

12.1.3 The DWNO-MORG-CO-ZZZZOHL-RT-EL-0014 '*XX Route: NOISE ASSESSMENT IN IDENTIFYING AREAS OF NOISE SENSITIVE RECEPTORS'* report identifies receptors that need a Tier 3 assessment. These are receptors within 27 m of the line between towers XX042 and XX046. This is after including mitigation in the form of triple bundle configuration. The Tier 3 assessment for these receptors is outlined below.

12.1.4 Background noise measurements were undertaken at two locations along this stretch of line that were representative of the receptors. Details of the baseline measurements have been included in Appendix 12.2 .

Table 1 XX Route Tier 3 Assessment

Receptor	Shortest distance to XX line (m)	Predicted wet noise for triple configuration (dBA)	Dry baseline	Miller curve (and correction factor)	Wet baseline	Difference between predicted wet noise and wet baseline (dBA)	Magnitude of impact
15 Dundrennan Drive Ml6 8gt	25	43	42	R1 (38)	43	-1	Negligible
20 Dundrennan Drive Ml6 8gt	25	43	42	R1 (38)	43	-1	Negligible
35 Dundrennan Drive Ml6 8gt	25	43	42	R1 (38)	43	-1	Negligible
70 Dundrennan Drive Ml6 8gt	25	43	42	R1 (38)	43	-1	Negligible
199 Main Street Ml6 8sf	13	44	42	R1 (38)	43	0	Negligible
212 Main Street Ml6 8sf	27	42	42	R1 (38)	43	-1	Negligible
214 Main Street Ml6 8sf	23	43	42	R1 (38)	43	-1	Negligible
218 Main Street Ml6 8sf	16	44	42	R1 (38)	43	0	Negligible
25 St Abbs Way Ml6 8wg	27	42	42	R1 (38)	43	-1	Negligible
54 St Abbs Way Ml6 8wg	27	42	42	R1 (38)	43	-1	Negligible

Receptor	Shortest distance to XX line (m)	Predicted wet noise for triple configuration (dBA)	Dry baseline	Miller curve (and correction factor)	Wet baseline	Difference between predicted wet noise and wet baseline (dBA)	Magnitude of impact
58 St Abbs Way Ml6 8wg	25	43	42	R1 (38)	43	-1	Negligible
60 St Abbs Way Ml6 8wg	27	42	42	R1 (38)	43	-1	Negligible
203 Honeywell Crescent Ml6 8xh	25	43	42	R1 (38)	43	-1	Negligible
205 Honeywell Crescent Ml6 8xh	18	43	42	R1 (38)	43	0	Negligible

12.1.5 The above results show that all the receptors in the Tier 3 assessment result in a negligible magnitude of impact. All the identified receptors are medium sensitivity and therefore result in negligible significant effect.

XR Tier 3 assessment

12.1.6 The DWNO-MORG-CO-ZZZZOHL-RT-EL-0011 '*XR Route: NOISE ASSESSMENT IN IDENTIFYING AREAS OF NOISE SENSITIVE RECEPTORS'* report identifies receptors that need a Tier 3 assessment. These are receptors within 27 m of the line between towers XR043 and XR044. This is after including mitigation in the form of triple bundle configuration. The Tier 3 assessment for these receptors is outlined below.

12.1.7 Background noise measurements were undertaken at one location along this stretch of line that was representative of the receptors. Details of the baseline measurements have been included in Appendix 12.2.

Table 2 XR Route Tier 3 Assessment

Receptor	Shortest distance to XX line (m)	Predicted wet noise for triple configuration (dBA)	Dry baseline	Miller curve (and correction factor)	Wet baseline	Difference between predicted wet noise and wet baseline (dBA)	Magnitude of impact
104 WISHAW ROAD ML2 8EA	18	43	29	R2 (41)	41	+2	Low
106 WISHAW ROAD ML2 8EA	0	45	29	R2 (41)	41	+3	Low
125 WISHAW ROAD ML2 8EN	27	42	29	R2 (41)	41	+1	Low
127 WISHAW ROAD ML2 8EN	27	42	29	R2 (41)	41	+1	Low

12.1.8 The above results show that all the receptors in the Tier 3 assessment result in a low magnitude of impact. All the identified receptors are medium sensitivity and therefore result in minor significant effect.