

TECHNICAL APPENDIX 13.3: SOURCE NOISE LEVELS

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1.1 Source Noise Levels

Table 0-1 Equipment Sound Power Levels – Spittal to Peterhead and Eastern Green Link 3 HVDC Converters

Equipment	Quantity	Housing Arrangements	Sound Power Level (SWL) (dB(A))
Alternating Current (AC) Hall Heating Ventilation Air Conditioning (HVAC)	2	External	80
Air Exhaust HVAC	4	Internal	71
Air Intake Climate System Air Handling Units (AHU)	4	Internal	70
Air Intake HVAC System AHU	4	Internal	67
Chiller	14	Internal	4 @ 70, 4 @ 80, 2 @ 85, 4 @ 92
Climate System Overpressure Fresh Air Intake	4	Internal	2 @ 68, 2 @ 71
Climate System Fresh Air Reactivation	4	Internal	2 @ 57, 2 @ 60
Climate System Wet Air Outlet	8	Internal	4 @ 40, 4 @ 71
Cooler Bank	2	External	95
DC Hall AHU	8	External	80
Exhaust Air Outlet Climate System	4	Internal	71
Relay Building HVAC	3	External	2 @ 75, 1 @ 80
Storage Building HVAC	3	External	80
Transformers Fans	6	External	80
Transformers in Building	6 (across 2 buildings)	Internal	106
Filter Reactor	6 (across 2 buildings)	Internal	75
Converter Reactor	6 (across 2 buildings)	Internal	90

Table 0-2 Equipment Sound Power Levels – HVDC Switching Station

Equipment	Quantity	Housing Arrangements	SWL (dB(A))
Climate System inlet/outlet	20	Internal	67
Standby Diesel Generator	1	Internal	80.0
Auxiliary Transformer	2	Internal	73.0

Table 0-3 Equipment Sound Power Levels – 400 kV AC Substation and 132 kV AC Substation

Equipment	Quantity	Housing Arrangements	SWL (dB(A))
Air Handling Units (AHU) – 400 kV	6	Internal	3 @ 75, 3 @ 85
AC Transformer – 400 kV	2	Internal	87.0
Standby Diesel Generators	1	Internal	65.0
Earthing Transformers	2	Internal	55.0
Control Room EVAC fans – 132 kV	2	External	65.8
Wet Area EVAC fans – 132 kV	2	External	78.0

Table 0-4 Equipment Sound Power Levels – Operations Depot Site

Equipment	Quantity	Housing Arrangements	SWL (dB(A))
Service Building HVAC inlet/outlet	2	External	81.0
Auxiliary Transformer	2	Internal	73.0
Standby Diesel Generator	1	Internal	80.0

Table 0-5 Sound Reduction – Building Facades - 200mm Rockspan and Firemaster Ultima

