

The Great Grid Upgrade

Sea Link

Preliminary Environmental Information Report

Volume: 2

Part 1 Introduction

Appendix 1.4.E Construction Plant Schedule

Version A

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Sea Link

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1.4.E Construction Plant Schedule

Table 1.4.E.1 Construction plant for the installation of converter stations and underground cables to inform the construction noise assessment

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB ¹	Drive-by maximum Sound Pressure Level at 10 m LA(max) dB ²	No	% on-time
Levelling and Creation of Substation/Converter Station Platform for Construction	360 excavator	BS 5228-1 Table C.2 #5 Tracked excavator (72 kW, 16 t)	76	-	2	90
	360 excavator (idling)	BS 5228-1 Table C.2 #6 Tracked excavator (idling) (72 kW, 16 t)	63	-	2	10
	Bulldozer	BS 5228-1 Table C.2 #10 Dozer (239 kW, 41 t)	80	-	2	100
	Dumper trucks	BS 5228-1 Table C.4 #4 Dumper (75 kW, 9 t)	-	76	3	90
	Dumper trucks (idling)	BS 5228-1 Table C.4 #5 Dumper (idling) (75 kW, 9 t)	63	-	3	10
	Smooth roller compacting plant	BS 5228-1 Table C.5 #19 Road roller (95 kW, 22 t)	-	80	1	65
	360 excavator	BS 5228-1 Table C.2 #5 Tracked excavator (72 kW, 16 t)	76	-	2	90

¹ LAeq,dB – The A-weighted, equivalent continuous sound pressure level in decibels.

² LA(max) dB - highest noise level in decibels, reached in a given time period.

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB ¹	Drive-by maximum Sound Pressure Level at 10 m LA(max) dB ²	No	% on-time
Construction of Equipment Foundations	360 excavator (idling)	BS 5228-1 Table C.2 #6 Tracked excavator (idling) (72 kW, 16 t)	63	-	2	10
	Dumper trucks	BS 5228-1 Table C.4 #4 Dumper (75 kW, 9 t)	76	-	2	65
	Dumper trucks (idling)	BS 5228-1 Table C.4 #5 Dumper (idling) (75 kW, 9 t)	63	-	2	65
	Ready mix delivery (discharging)	BS 5228-1 Table C.4 #18 Cement mixer truck (discharging)	75	-	2	90
	Ready mix delivery (idling)	BS 5228-1 Table C.4 #19 Cement mixer truck (idling)	71	-	2	10
	Telehandler	BS 5228-1 Table C.4 #54 Telescopic handler (76 kW, 4 t)	79	-	2	100
	Hydrovac	BS 5228-1 Table C.11 #4 Lorry (350 kW, 44 t)	-	83	1	100
Removal and Installation of Security Fence	Readymix (discharging)	BS 5228-1 Table C.4 #18 Cement mixer truck- (discharging)	75	-	3	65
	Readymix (idling)	BS 5228-1 Table C.4 #19 Cement mixer truck (idling)	71	-	3	65
	Dumper trucks	BS 5228-1 Table C.4 #4 Dumper (75 kW, 9 t)	76	-	1	100
	Dumper trucks (idling)	BS 5228-1 Table C.4 #5 Dumper (idling) (75 kW, 9 t)	63	-	1	100
	Jackhammers	BS 5228-1 Table C.5 #4 Road breaker (hand-held pneumatic)	95	-	2	50

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB ¹	Drive-by maximum Sound Pressure Level at 10 m LA(max) dB ²	No	% on-time
	Compressor	BS 5228-1 Table C.5 #5 Compressor for hand-held pneumatic breaker (1 t)	65	-	1	50
	Telehandler	BS 5228-1 Table C.4 #54 Telescopic handler (76 kW, 4 t)	79	-	1	100
	360 excavator	BS 5228-1 Table C.2 #5 Tracked excavator (72 kW, 16 t)	76	-	1	100
	360 excavator (idling)	BS 5228-1 Table C.2 #6 Tracked excavator (idling) (72 kW, 16 t)	63	-	1	100
Transport transformers to site (Converter Station Site ONLY)	AIL - Transformer delivery specialist low loader, AIL - Transformer delivery specialist low loader, AIL - Transformer delivery specialist low loader	BS 5228-1 Table C.11 #4 Lorry (350 kW, 44 t)	-	83	1	10
Transport necessary materials to site	Articulated lorry DSV mega trailer	BS 5228-1 Table C.11 #4 Lorry (350 kW, 44 t)	-	83	1	10

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB ¹	Drive-by maximum Sound Pressure Level at 10 m LA(max) dB ²	No	% on-time
Deliver the cables from port to main construction compound	Cable drum delivery vehicle Category 3 vehicle and trailer, detailed in fig 3.1 and 3.3	BS 5228-1 Table C.11 #4 Lorry (350 kW, 44 t)	-	83	1	10
Transport cable drum along haulage road, with agricultural tractor	Cable drum installation rear-facing trailer Such as SEB CD980	BS 5228-1 Table C.4 #75 Tractor (towing trailer) (71 kW, 3.5 t)	-	79	1	25
Transport cable drum along haulage road, with standard HGV tractor	Cable drum installation side-facing trailer such as Goldhofer cable installation trailer	BS 5228-1 Table C.11 #4 Lorry (350 kW, 44 t)	-	83	1	25
Deliver concrete to site	CBS/Concrete mixer 8 m ³ capacity	BS 5228-1 Table C.4 #18 Cement Mixer Truck (discharging)	75	-	1	25
		BS 5228-1 Table C.4 #19 Cement Mixer Truck (idling)	71	-	1	50

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB ¹	Drive-by maximum Sound Pressure Level at 10 m LA(max) dB ²	No	% on-time
Transport materials such as stone on site	Dump Truck 30 t bell dump truck	BS 5228-1 Table C.4 #1 Articulated dump truck (194 kW, 25 t)	-	81	1	25
Transport spoil and aggregates within site boundaries	Dumper 10 t Dumper - Hydrema 912F & 912F MultiTip	BS 5228-1 Table C.4 #4 Dumper (75 kW, 9 t)	-	76	3	50
		BS 5228-1 Table C.4 #5 Dumper (idling) (75 kW, 9 t)	63	-	3	40
Excavate the site for convertor station, ponds and drainage	Excavator Hyundai HX300 (30 t excavator)	BS 5228-1 Table C.2 #16 Tracked excavator (170 kW, 30t)	75	-	1	25
Provide fuel to the vehicles on site	Fuel tank 7,500 Litre bunded fuel tanker	BS 5228-1 Table C.4 #15 Fuel tanker lorry (11 t)	-	76	1	10
Drill the cable route underneath an obstacle (e.g. river, existing road)	Horizontal directional drill JT60 directional drill	BS 5228-1 Table C.4 #96 Directional drill (generator) (106 kW)	77	-	1	25
		BS 5228-1 Table C.4 #38 Wheeled mobile telescopic crane (610 kW, 400 t)	78	-	1	10

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB ¹	Drive-by maximum Sound Pressure Level at 10 m LA(max) dB ²	No	% on-time
Lift heavy materials and transport them into position on site	Liebherr 200–250 tonne crane					
	Medium crane NHC 100T crane	BS 5228-1 Table C.4 #41 Mobile telescopic crane (280 kW, 100 t)	71	-	1	25
Excavate the cable routes	Medium excavator JCB 13 Tonne Excavator	BS 5228-1 Table C.4 #56 Wheeled excavator (63 kW, 14 t)	83	-	2	50
Transport HV plant equipment, steel structures and (items below and above) to site	Medium low loader 20 t capacity low loader	BS 5228-1 Table C.11 #4 Lorry (350 kW, 44 t)	-	83	1	10
Install piles on site	Piling rig	BS 5228-1 Table C.3 #2 Hydraulic Hammer Rig (186 kW, 4 t)	87	-	2	50
Compact asphalt on roads and earthworks compaction	Roller Ammann AV 70-2	BS 5228-1 Table C.5 #19 Road roller (95 kW, 22 t)	-	80	1	25
Lift heavy materials and transport them into position on site	Small crane 50 t crane, LTM 1050-3.1	BS 5228-1 Table C.4 #46 Mobile telescopic crane (240 kW, 50 t)	67	-	1	10

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB ¹	Drive-by maximum Sound Pressure Level at 10 m LA(max) dB ²	No	% on-time
Excavate the cable routes	Small excavator 5 t excavator	BS 5228-1 Table C.4 #68 Mini tracked excavator (30 kW, 5 t)	65	-	1	25
Lift equipment into position on site	Tele handler JCB 17m telehandler	BS 5228-1 Table C.4 #55 Telescopic handler (75 kW, 3.7 t)	70	-	2	50
Lift and transport materials to site	Tipper Eight-wheeled tipper lorry	BS 5228-1 Table D.3 #112 Tipper lorry (75 kW)	85	-	1	25
Transport cable equipment along haulage road	Tractor trailer 9R 440, 356 kW Engine power	BS 5228-1 Table C.4 #75 Tractor (towing trailer) (71 kW, 3.5 t)	-	79	1	10

Table 1.4.E.2 Construction plant for the installation and dismantling of overhead lines to inform the construction noise assessment

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB	No	% on-time
Installation of Pylon foundations – assumed tube pile TBC	Piling rig	BS 5228-1 Table C.3 #2 Hydraulic Hammer Rig (186 kW, 4 t)	87	1	80
	Concrete delivery Lorries	BS 5228-1 Table C.11 #14 Lorry (254 kW, 32 t)	79	1	25

Activity description	Plant description	Data source	Sound Pressure Level at 10 m LAeq dB	No	% on-time
	Vibration compaction plant	BS 5228-1 Table C.5 #29 Vibratory compactor (asphalt) (3 kW, 60 kg)	82	1	50
	Compressor	BS 5228-1 Table C.5 #5 Compressor for hand held pneumatic breaker (1 t)	65	1	10
	JCB	BS 5228-1 Table C.2 #8 Backhoe Loader (62 kW, 8 t)	68	1	75
	Dumper trucks	BS 5228-1 Table C.2 #32/33 Articulated Dump Truck (187 kW, 23 t)	81	1	50
Pylon Dismantling	JCB	BS 5228-1 Table C.2 #8 Backhoe Loader (62 kW, 8 t)	68	1	50
	360 excavator	BS 5228-1 Table C.2 #5/6 Tracked Excavator (72 kW, 16 t)	76	1	50
	Dumper trucks	BS 5228-1 Table C.2 #32/33 Articulated Dump Truck (187 kW, 23 t)	81	1	50
	Cranes	BS 5228-1 Table C.3 #28 Tracked mobile crane (184 kW, 110 t)	67	1	50

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