



**SCOTTISHPOWER
RENEWABLES**

East Anglia TWO Offshore Windfarm

Appendix 26.11

HGV and Employee Traffic Assigned to the Construction Programme

Preliminary Environmental Information

Volume 3

EA2-DEVWF-ENV-REP-IBR-000821_011

Landfall - Construction Plant Requirements

Plant	Month																																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
D6 Dozer	2	2	2	3																																	
30T Excavator	2	2	2	2																																	
20T Dumper	2	2	2	2																																	
Smooth Drum vibrio road roller	1	1	1	2																																	
21T excavator	1	1	1	2																																	
5T Forward Tipping Dumper	1	1	1	2																																	
Loading shovel	1	1	1	1																																	
Trench Roller																																					
Tractor & fencing kit	1	1	1																																		
Tractor & trailer	1	1	1	1																																	
Tractor & Fuel bowser (or self-propelled)	1	1	1	1																																	
Tractor & Water bowser (for dust suppression)	1	1	1	1																																	
Tractor & cable drum trailer																																					
Tractor & soil tiller, roller, seeder																																					
Cement mixer																																					
Mobile crane																																					
Grader	1	1	1	1																																	
Cable laying tracked crane																																					
Cable winch																																					
Pre-cast concrete truck																																					
Mobile concrete pump																																					
Telehandler	1	1	1	1																																	
Mobile self-contained welfare unit	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Crawler Crane																																					
Mobile generator	1	1	1	1																																	
Temporary lighting	1	1	1	1																																	
Road surface paver & roller	1	1																																			
Pump																																					
Total Plant Onsite In Section Per Month	21	21	20	23	0	1	1	1	1	1	1	1	1	13	17	24	27	27	26	18	19	20	18	18													
Total Deliveries / Removals	21	0	1	5	22	0	0	0	0	0	0	0	0	12	4	7	5	3	8	1	1	2			18												
Average Deliveries / Removals Per Day	1	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
Average Total two-way HGV movements (Deliveries / Removals) Per Day	2	0	2	2	2	0	0	0	0	0	0	0	0	2	2	2	2	0	2	2	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0		

Landfall - Average Daily Personnel Requirements

Number of Additional Site Personnel Per Activity (general labourers, drillers, drilling foremen, etc.)	Total Working Days	Total Person Days	Month																																			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
HGV Holding area at Elm Tree Farm	22	66	3																																			
Establish site access off Thorepness Road and CCS Construction	44	132	3	3																																		
Site preparation including fencing, temporary drainage and haul road construction.	44	176		4	4																																	
Establish Landfall HDD construction compound	44	132			3	3																																
HDD Drilling works & Ducting (assume working 24/7 days a week) Includes Admin of HDD Compound	270	1,620				6	6	6	6	6	6	6	6																									
Demobilisation of HDD Kit and Welfare to Landfall Compound	22	132												6																								
Transition Bays at Landfall																																						
Excavation of transition bays	66	198												3	3	3																						
Construction of transition bay base	44	132													3	3																						
Connection of Cables in Transition Bays	66	198														3	3	3																				
Transition bay Walls and Roof	66	198														3	3	3																				
Backfill over transition bay	66	198															3	3	3																			
Landfall Compound Removal and Reinstatement	44	132																																				
Haul Road Removal (includes removal of fencing) and reinstatement	44	132																																				
Access road and CCS removal	66	198																																				
Removal of Accesses and Holding Area at Elm Tree Farm	22	66																																				
Plant Operators																																						
Overall Plant Operators	528	5,170	17	17	16	19	0	0	0	0	0	0	0	9	12	16	19	19	19	14	15	15	14	14														
Landfall HDD Engineering Personnel (non HDD)																																						
1 x engineer / surveyor, 1 x Foreman	286	264	2	2	2										2	2	2	0	0	0	0	0	0	0														
2 x vehicle marshals for HGV holding area at Elm Farm	528	1,056	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2														
Average Total Employees per day			27	28	27	24	8	8	8	8	8	8	8	20	22	32	32	30	27	19	20	23	19	22	0	0	0	0	0	0	0	0	0	0	0	0		
Maximum Total Employee Two-way Movements Per Day (car/small van)			54	56	54	48	16	16	16	16	16	16	16	40	44	64	64	60	54	38	40	46	38	44	0	0	0	0	0	0	0	0	0	0	0	0		

Landfall - Total Vehicle Movement Requirements

Activity	Month																																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Materials and Welfare and Operation Plant Daily HGV Movements Total Two-way HGV Movements Per Day	16	30	26	18	12	12	12	12	12	12	12	12	12	10	6	8	6	6	14	12	18	24	10	14	0	0	0	0	0	0	0	0	0	0	0	0
Increase to account for Miscellaneous allowances presented in Page 11 of Materials Vehicle Movements Tab where the percentage increase is presented	20	38	33	23	15	15	15	15	15	15	15	15	15	13	8	10	8	8	18	15	23	30	13	18	0	0	0	0	0	0	0	0	0	0	0	0
Construction Plant Average Total two-way HGV Movements (deliveries / Removals) Per Day	2	0	2	2	2	0	0	0	0	0	0	0	0	2	2	2	2	0	2	2	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	
Average total two-way HGV Movements Per Day	22	38	35	25	17	15	15	15	15	15	15	15	15	15	10	12	10	8	20	17	25	32	15	18	2	0	0	0	0	0	0	0	0	0	0	
Maximum Total Employee Two-way Movements Per Day (car/small van)	54	56	54	48	16	16	16	16	16	16	16	16	16	40	44	64	64	60	54	38	40	46	38	44												

Section 1 - Construction Plant Requirements

Plant	Month																																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36					
D6 Dozer	1	1	1	1	2	2	1								2	2	2				2	2	2	2										2	2	2					
30T Excavator	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			2	2	2	2											2	2	2				
20T Dumper	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	2			2	2	2	2											4	4	4				
Smooth Drum vibrio road roller	1	1	1	1	1	1	1								1	1	1				1	1	1	1											1	1	1				
21T excavator	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1			1	1	1	1												2	2	2			
5T Forward Tipping Dumper	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1			1	1	1	1												2	2	2			
Loading shovel	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2				2	2	2	2												2	2	2			
Trench Roller							1	1	1	1	1	1	1	1	1	1																					1	1	1		
Tractor & fencing kit					1	1																1	1	1	1																
Tractor & trailer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1													1	1	1		
Tractor & Fuel bowser (or self-propelled)	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1													1	1	1		
Tractor & Water bowser (for dust suppression)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1														1	1	1	
Tractor & cable drum trailer												1	1	1	1	1	1	1	1																						
Tractor & soil tiller, roller, seeder															1	1	1					1	1	1	1												1	1	1		
Cement mixer													1	1	1	1	1	1	1	1																					
Mobile crane													1	1	1	1	1	1	1	1																					
Grader	1	1	1	1	1	1	1																																		
Cable laying tracked crane																																									
Cable winch												1	1	1	1	1	1	1	1	1																					
Pre-cast concrete truck																																									
Mobile concrete pump												1	1	1	1	1	1	1	1	1																					
Telehandler	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																		
Mobile self-contained welfare unit	2	2	2	2																																		2	2	2	
Crawler Crane							1	1	1	1	1	1	1	1	1	1	1	1	1																						
Mobile generator	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1													2	2	2	
Temporary lighting	1	1	1	1	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2														3	3	3	
Road surface paver & roller	1	1	1	1																																					
Pump							1	2	2	2	2	2	2	2	2	2	2	2	2	1																			1	1	1
Total Plant Onsite In Section Per Month	20	20	20	20	25	25	27	25	25	26	28	31	31	31	35	35	34	24	17	12	19	19	19	19	0	0	0	0	0	0	0	0	0	0	0	0	28	28	28		
Total Deliveries / Removals	20	0	0	0	11	0	6	4	0	1	2	3	0	0	4	0	1	10	7	5	19	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	28	0	33		
Average Deliveries / Removals Per Day	1	0	0	0	1	0	1	1	0	1	1	1	0	0	1	0	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	2		
Average Total two-way HGV movements (Deliveries / Removals) Per Day	2	0	0	0	2	0	2	2	0	2	2	2	0	0	2	0	2	2	2	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4	0	4			

Section 3 - Construction Plant Requirements

Plant	Month																																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
D6 Dozer	1	1	1	1	2	2	1					Q	Q	Q	Q	Q						2	2	2	2									2	2	2				
30T Excavator	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2				2	2	2	2										2	2	2			
20T Dumper	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	2	2				2	2	2	2										4	4	4			
Smooth Drum vibrio road roller	1	1	1	1	2	2	1															1	1	1	1										1	1	1			
21T excavator	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1				1	1	1	1										2	2	2			
5T Forward Tipping Dumper	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1			1	1	1	1										2	2	2			
Loading shovel	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2						2	2	2	2										2	2	2			
Trench Roller							1	1	1	1	1	1	1	1	1	1																				1	1	1		
Tractor & fencing kit					1	1																				1	1	1	1											
Tractor & trailer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Tractor & Fuel bowser (or self-propelled)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Tractor & Water bowser (for dust suppression)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Tractor & cable drum trailer												1	1	1	1	1	1	1	1	1																				
Tractor & soil tiller, roller, seeder																									1	1	1	1									1	1	1	
Cement mixer													1	1	1	1	1	1	1	1	1																			
Mobile crane													1	1	1	1	1	1	1	1																				
Grader	1	1	1	1	1	1	1																																	
Cable laying tracked crane																																								
Cable winch												1	1	1	1	1	1	1	1	1																				
Pre-cast concrete truck																																								
Mobile concrete pump												1	1	1	1	1	1	1	1	1																				
Telehandler	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																				
Mobile self-contained welfare unit	2	2	2	2																																	2	2	2	
Crawler Crane							1	1	1	1	1	1	1	1	1	1	1	1	1	1																				
Mobile generator	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1											2	2	2		
Temporary lighting	1	1	1	1	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2											3	3	3		
Road surface paver & roller	1	1	1	1																																				
Pump							1	2	2	2	2	2	2	2	2	2	2	2	2	2	1																	1	1	1
Total Plant Onsite In Section Per Month	20	20	20	20	26	26	27	25	25	26	28	31	31	31	31	31	24	24	17	12	19	19	19	19											28	28	28			
Total Deliveries / Removals	20				12		7	4			1	2	3								7		5	19												28		28		
Average Deliveries / Removals Per Day	1	0	0	0	1	0	1	1	0	1	1	1	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0			
Average Total two-way HGV movements (Deliveries / Removals) Per Day	2	0	0	0	2	0	2	2	0	2	2	2	0	0	0	0	0	2	0	2	2	2	0	0	0	2	0	0	0	0	0	0	0	0	4	0	4			

Section 4 - Average Materials and Welfare and Operation Plant Daily HGV Movements

Activity	Total Working Days	Total HGVs	Months																																								
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36					
Establish construction consolidation site compound and site accesses	88	559	7	7	7	7																																					
Mobilisation of Welfare and Operation Plant to CCS	88	31	1	1	1	1																																					
Site preparation including fencing, temporary drainage and haul road construction.	44	688					16	16																																			
Construction of access roads for National Grid Over Head Line Works	66	602							10	10	10																																
Onshore Export Cable Installation Sction 4A and 4B																																											
Trench Route Clearance / Topsoil Strip	44	0					0	0																																			
Trench Excavation	220	230							2	2	2	2	2	2	2	2	2	2																									
Duct Installation	220	141							1	1	1	1	1	1	1	1	1	1																									
Trench Backfill	198	12								1	1	1	1	1	1	1	1	1																									
Jointing Bay Excavation	242	184								1	1	1	1	1	1	1	1	1	1	1																							
Jointing Bay Base Constriction	198	13										1	1	1	1	1	1	1	1	1	1																						
Pulling and connection of cables	198	37											1	1	1	1	1	1	1	1	1	1	1																				
Jointing Bay Walls and Roof	198	38												1	1	1	1	1	1	1	1	1	1	1																			
Backfill over Jointing Bays	44	0																																					0	0			
Trench Route Reinstatement / Topsoil Reinstatement	66	0																																					0	0	0		
Movement of fence line to minimum extents	88	0																																									
Haul Road Removal (includes removal of fencing) and reinstatement	66	688																																						11	11	11	
Removal of access road for National Grid Overhead Line Works	66	602																																						10	10	10	
Demobilisation of Welfare from CCS	66	31																																						1	1	1	
Construction consolidation site and access road Removal	154	559																																							4	4	4
Average Section Skip HGV Movements Per Day	594	250	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Total HGVs per day			9	9	9	9	17	17	14	16	16	7	8	9	9	9	9	5	5	3	2	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	27	27
Total two-way HGV movements per day			18	18	18	18	34	34	28	32	32	14	16	18	18	18	18	10	10	6	4	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	54	54	

Section 4 - Construction Plant Requirements

Plant	Month																																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
D6 Dozer	1	1	1	1	2	2	1	1	1												2	2	2	2									2	2	2				
30T Excavator	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2			2	2	2	2										2	2	2			
20T Dumper	3	3	3	3	4	4	6	6	6	4	4	4	4	4	4	4	2	2			2	2	2	2										4	4	4			
Smooth Drum vibrio road roller	1	1	1	1	2	2	1	1	1												1	1	1	1										1	1	1			
21T excavator	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1			1	1	1	1										2	2	2			
5T Forward Tipping Dumper	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1			1	1	1	1										2	2	2			
Loading shovel	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2					2	2	2	2										2	2	2			
Trench Roller							1	1	1	1	1	1	1	1	1	1																			1	1	1		
Tractor & fencing kit					1	1	1	1	1													1	1	1	1														
Tractor & trailer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											1	1	1		
Tractor & Fuel bowser (or self-propelled)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											1	1	1		
Tractor & Water bowser (for dust suppression)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											1	1	1		
Tractor & cable drum trailer											1	1	1	1	1	1	1	1	1																				
Tractor & soil tiller, roller, seeder																						1	1	1	1											1	1	1	
Cement mixer													1	1	1	1	1	1	1	1																			
Mobile crane													1	1	1	1	1	1	1	1																			
Grader	1	1	1	1	1	1	1	1	1																														
Cable laying tracked crane																																							
Cable winch												1	1	1	1	1	1	1	1	1																			
Pre-cast concrete truck													1	1	1	1	1	1	1	1																			
Mobile concrete pump																																							
Telehandler	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																			
Mobile self-contained welfare unit	2	2	2	2																																2	2	2	
Crawler Crane							1	1	1	1	1	1	1	1	1	1	1	1	1																				
Mobile generator	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1											2	2	2		
Temporary lighting	1	1	1	1	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2												3	3	3	
Road surface paver & roller	1	1	1	1																																			
Pump							1	2	2	2	2	2	2	2	2	2	2	2	2	1																	1	1	1
Total Plant Onsite In Section Per Month																																							
Total Deliveries / Removals	20	20	20	20	26	26	31	32	32	26	28	31	31	31	31	31	24	24	17	12	19	19	19	19											28	28	28		
Average Deliveries / Removals Per Day	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Average Total two-way HGV movements (Deliveries / Removals) Per Day	2	2	2	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	4	4	4	

Substation - Monthly Construction Plant Requirements

Activity	Months																																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36								
D6 Dozer	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1																		1	1	1							
30T excavator	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1																			1	1	1						
20T dumper	2	2	2	3	3	3	3	2	2	1	1	1	1	1	1	1	1																				1	1	1					
Smooth Drum vibro road roller	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1																				1	1	1					
21T excavator	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2	1																				1	1	1				
5T Forward Tipping Dumper	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2	1																				1	1	1				
Loading shovel	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1																					1	1	1				
Tractor & trailer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Tractor & Fuel bowser (or self-propelled)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Tractor & Water bowser (for dust supression)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Grader	2	2	2	2	1	1	2	2	2	1	1	1	1	1	1	1	1																						1	1	1			
Mobile self-contained welfare unit	1	1	1	1																																			1	1	1			
Road surface paver & roller										1	1	1	1	1	1	1	1																							1	1	1		
Concrete batching plant										1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Dry-mix silos										2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Cement mixer																		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Mobile crane (light for general use)																		1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Mobile crane (heavy)																							1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Specialist heavy-lifting gantry & associated equipment																							1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Static crane																		1	1	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Pre-cast concrete truck										1	1	1	1	1	1	2	2	2	2	2	2	1	1																					
Mobile concrete pump										1	1	1	1	1	1	2	2	2	2	2	2	1	1																					
Telehandler										1	1							1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Mobile generator										1	1							1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
3T Forward Tipping Dumper																		1	1	1	1	1																						
Scissor lift																		1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Mobile powered aerial platform (boom lift / 'cherry picker')																		1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Scaffolding (deliveries)																		1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Formwork (deliveries)										1	1	1	1	1	1	2	2	2	2	2	2	1	1																					
JCB Wheeled excavator																		1	1	2	2	2	2	2	1	1																		
Forklift																																												
Pump (4 per delivery)																																												
Temporary lighting (8 per delivery)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Trench Roller																																												
Crawler Crane																																												
Total Plant Onsite In Section Per Month	22	22	22	24	22	26	35	29	29	22	22	22	22	31	31	40	40	38	33	33	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0	0	0	0	14	14	14		
Total Deliveries / Removals	22	0	0	4	2	4	9	6	0	7	0	0	0	9	0	9	0	18	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	14
Average Deliveries / Removals Per Week	6	0	0	1	1	1	3	2	0	2	0	0	0	3	0	3	0	5	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
Average Total two-way HGV movements (Deliveries / Removals) Per Week	12	0	0	2	2	2	6	4	0	4	0	0	0	6	0	6	0	10	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8
Average Total two-way HGV movements (Deliveries / Removals) Per Day	3	0	0	1	1	1	2	1	0	1	0	0	0	2	0	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2

Substation - Average Daily Personnel Requirements

Number of Additional Site Personnel Per Activity (general labourers, drillers, drilling foremen, electricians, joiners, bricklayers etc)	Total Working Days	Total Person Days	Months																																										
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36							
Permanent Access Road	0	#DIV/0!																																											
Construction Compound Construction	88	264	3	3	3	3																																							
Site Clearance Works	66	132				2	2	2																																					
Project Substation - National Grid Connection	44	132						3	3																																				
Development Platform Earthworks	132	396				3	3	3	3	3	3																																		
Foundation Works	198	748								4	4	4	4	4	4	3	3																												
Sub-structure Works	110	374											4	4	3	3	3																												
Super-Structure Works	110	374													3	3	3	4	4																										
M&E Kit Installation	110	506															4	5	5	5	4																								
Wiring Up	110	528																				4	5	5	5	5																			
Commissioning	264	1,056																				3	3	3	3	3	3	5	5	5	5	5	5												
Reinstatement	66	396																																											
Construction Compound Removal and Welfare Demobilisation	66	396																																											
Plant Operators																																													
Overall Plant Operators	792	11,220	19	19	19	19	18	19	24	21	21	14	14	14	14	22	22	27	27	20	17	17	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9		
Substation Engineering Personnel																																													
Lead Engineer, 1 x Assistant Engineers, 1 x surveyors, 1 x Foreman	792	3,168	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Project Engineering Personnel Based at Substation																																													
Head Engineer, 1 x Admin Staff, QS, Overall Site Foreman, H&S Supervisor, Environmental Clerk, Lead Surveyor, 1 x catering staff, 1 x client representative and 1 x owners engineers	792	7,920	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Average Total Employees per day			36	36	36	41	37	41	48	42	42	32	32	36	36	45	45	51	50	43	39	42	31	31	31	31	28	28	28	28	28	28	28	28	28	28	14	14	14	14	37	37	37		
Maximum Total Employee Two-way Movements Per Day (car/small van)			72	72	72	82	74	82	96	84	84	64	64	72	72	90	90	102	100	86	78	84	62	62	62	62	56	56	56	56	56	56	56	56	28	28	28	28	74	74	74				

Substation - Total Vehicle Movement Requirements

Activity	Week																																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Materials and Welfare and Operation Plant Daily HGV Movements Total Two-way HGV Movements Per Day	8	10	10	40	30	32	42	40	40	22	22	22	22	24	24	26	26	10	8	8	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	12
Increase to account for Miscellaneous allowances (Nominal 25% increased)	10	13	13	50	38	40	53	50	50	28	28	28	28	30	30	33	33	13	10	10	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	15
Construction Plant Average Total two-way HGV Movements (deliveries/Removals) Per Week	3	0	0	1	1	1	2	1	0	1	0	0	0	2	0	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2	0	2
Average total two-way HGV Movements Per Day	13	13	13	51	39	41	55	51	50	29	28	28	28	32	30	35	33	15	12	10	10	8	0	0	0	0	0	0	0	2	0	0	0	17	15	17				
Maximum Total Employee Two-way Movements Per Day (car/small van)	72	72	72	82	74	82	96	84	84	64	64	72	72	90	90	102	100	86	78	84	62	62	62	62	56	56	56	56	56	56	56	56	28	28	28	74	74	74		
Employee Two-Way Movements Plus additional 10% for Miscellaneous Movements	80	80	80	91	82	91	106	93	93	71	71	80	80	99	99	113	110	95	86	93	69	69	69	69	62	62	62	62	62	62	62	31	31	31	82	82	82			
Maximum Total HGV and Car/small van Two-way Movements Per Day (car/small van)	93	93	93	142	121	132	161	144	143	100	99	108	108	131	129	148	143	110	98	103	79	77	69	69	62	62	62	62	62	62	62	33	31	31	99	97	99			

National Grid Works

Construction Vehicle movements (quarterly)																				
Activities	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Site Enabling																				
HGVs	3000	3000	1500																	
LGVs	950	450	250																	
Substation Works																				
HGVs			160	300	650	650	650	650	800	800	1800	1800	1800	1800	500	500	20	20	40	44
LGVs			720	1120	1900	2180	2180	2180	1850	1850	1850	1850	800	800	800	400	200	200	200	200
Overhead Line Works																				
HGVs						268	268	268	268	402	402			134	264	264			402	402
LGVs						360	360	360	360	360	360			180	360	360				
TOTALS																				
Total two-way HGV movements per quarter	3000	3000	1660	300	650	918	918	918	1068	1202	2202	1800	1800	1934	764	764	20	20	442	446
Total two-way daily HGV movements (assuming 66 working days per quarter)	45	45	25	5	10	14	14	14	16	18	33	27	27	29	12	12	0	0	7	7
Total dail delivereries	23	23	13	2	5	7	7	7	8	9	17	14	14	15	6	6	0	0	3	3
Total two-way LGV movements per quarter	950	450	970	1120	1900	2540	2540	2540	2210	2210	2210	1850	800	980	1160	760	200	200	200	200
Total two-way daily LGV movements (assuming 66 workidn days per quarter)	14	7	15	17	29	38	38	38	33	33	33	28	12	15	18	12	3	3	3	3
Total daily LGV arrivals	7	3	7	8	14	19	19	19	17	17	17	14	6	7	9	6	2	2	2	2