



**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	1	1	1	1																																	
Mobile generator	1	1	1	1																																	
Temporary lighting	1	1	1	1																																	
Road surface paver & roller	1	1																																			
Pump																																					
<b>Total Plant Onsite In Section Per Month</b>	21	21	20	23	0	1	1	1	1	1	1	1	1	13	17	24	27	27	26	18	19	20	18	18													
<b>Total Deliveries / Removals</b>	21	0	1	5	22	0	0	0	0	0	0	0	0	12	4	7	5	3	8	1	1	2			18												
<b>Average Deliveries / Removals Per Day</b>	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		
<b>Average Total two-way HGV movements (Deliveries / Removals) Per Day</b>	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														
<b>Average Total Employees per day</b>			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		
<b>Maximum Total Employee Two-way Movements Per Day (car/small van)</b>			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	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	
<b>Average total two-way HGV Movements Per Day</b>	22	38	35	25	17	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	0	
<b>Maximum Total Employee Two-way Movements Per Day (car/small van)</b>	54	56	54	48	16	16	16	16	16	16	16	16	16	40	44	64	64	60	54	38	40	46	38	44	0	0										



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																																									
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														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															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
<b>Total Plant Onsite In Section Per Month</b>	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		
<b>Total Deliveries / Removals</b>	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		
<b>Average Deliveries / Removals Per Day</b>	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		
<b>Average Total two-way HGV movements (Deliveries / Removals) Per Day</b>	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 1 - 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	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				
Establish construction consolidation site and site access off Sizewell Gap Road	88	264	3	3	3	3																																				
Site preparation including fencing, temporary drainage and haul road construction	44	176					4	4																																		
Onshore Export Cable Installation East of SPA																																										
Trench Route Clearance / Topsoil Strip	44	88					2	2																																		
Trench Excavation	220	330							3	2	2	2	1	1	1	1	1	1																								
Duct Installation	220	330							3	2	2	2	1	1	1	1	1	1																								
Trench Backfill	198	264								2	2	2	1	1	1	1	1	1																								
Jointing Bay Excavation	242	352								2	2	2	1	1	1	1	1	1	2	2																						
Jointing Bay Base Constriction	198	264										2	1	1	1	1	1	1	2	2																						
Pulling and connection of cables	198	286											1	1	1	1	1	1	2	2	3																					
Jointing Bay Walls and Roof	198	330											1	1	1	1	1	1	2	2	3	3																				
Backfill over Jointing Bays	44	132																																				3	3			
Trench Route Reinstatement / Topsoil Reinstatement	66	198																																				3	3	3		
Medium Length HDD crossing of Obstacle 2.1 and 2.2																																										
Establish Onshore HDD drilling compound	66	198					3	3	3																																	
HDD Drilling works & Ducting (assume working 24/7 7 days a week) Includes Admin of HDD Compound	120	120								1	1	1	1																													
HDD Drilling risk programme 'float'	30	120											4																													
Demobilisation of HDD kit and welfare	22	66												3																												
Removal of Onshore HDD compound	66	198													3	3	3																									
Movement of fence line to minimum extents	88	264																						3	3	3	3															
Haul Road Removal (includes removal of fencing) and reinstatement	66	198																																					3	3	3	
Construction consolidation site d and access road Removal	154	462																						3	3	3	3											3	3	3		
Plant Operators																																										
Overall Plant Operators	792	11,154	16	16	16	15	21	21	21	18	18	19	21	23	23	23	27	27	26	16	9	7	16	16	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	20
Section 1 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	
Project Engineering Personnel Based at CSS 1.1																																										
Head Engineer, 2 x Admin Staff, QS, Assistant QS, Overall Site Foreman, H&S Supervisor, H&S Assistant, Environmental Clerk, Assistant Environmental Clerk, Lead Surveyor, 2 X catering staff, 2 x client representative and 2 x owners engineers	792	13,464	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
Average Total Employees per day			40	40	40	39	51	51	51	48	48	51	49	55	54	51	58	58	58	45	36	31	43	43	43	43	21	21	21	21	21	21	21	21	21	21	21	21	53	53	50	
Maximum Total Employee Two-way Movements Per Day (car/small van)			80	80	80	78	102	102	102	96	96	102	98	110	108	102	116	116	116	90	72	62	86	86	86	86	42	42	42	42	42	42	42	42	42	42	42	42	106	106	100	

**Section 1 - 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	18	18	18	18	36	36	14	20	14	16	18	18	24	18	24	24	16	10	6	4	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	
Increase to account for Miscellaneous allowances presented in Page 11 of Materials Vehicle Movements Tab where the percentage increase is presented	22	22	22	22	44	44	18	25	18	20	22	22	30	22	30	30	20	13	8	5	13	13	13	13	0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	
Construction Plant 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	0	0	4	0	4
Average total two-way HGV Movements Per Day	24	22	22	22	46	44	20	27	18	22	24	24	30	22	32	30	22	15	10	7	15	13	13	13	2	0	0	0	0	0	0	0	0	0	0	0	41	37	41	
Maximum Total Employee Two-way Movements Per Day (car/small van)	80	80	80	78	102	102	102	96	96	102	98	110	108	102	116	116	116	90	72	62	86	86	86	86	42	42	42	42	42	42	42	42	42	42	42	42	106	106	100	
Employee Two-Way Movements Plus additional 10% for Miscellaneous Movements	88	88	88	86	113	113	113	106	106	113	108	121	119	113	128	128	128	99	80	69	95	95	95	95	47	47	47	47	47	47	47	47	47	47	47	47	117	117	110	
Maximum Total HGV and Car/small van Two-way Movements Per Day (car/small van)	112	110	110	108	159	157	133	133	124	135	132	145	149	135	160	158	150	114	90	76	110	108	108	108	49	47	47	47	47	47	47	47	47	47	47	158	154	151		









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																																			
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	1																				
Mobile crane													1	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	1																				
Pre-cast concrete truck																																									
Mobile concrete pump												1	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	1	1																				
Mobile generator	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	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															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
<b>Total Plant Onsite In Section Per Month</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>26</b>	<b>26</b>	<b>27</b>	<b>25</b>	<b>25</b>	<b>26</b>	<b>28</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>24</b>	<b>24</b>	<b>17</b>	<b>12</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>												<b>28</b>	<b>28</b>	<b>28</b>			
<b>Total Deliveries / Removals</b>	<b>20</b>				<b>12</b>		<b>7</b>	<b>4</b>			<b>1</b>	<b>2</b>	<b>3</b>								<b>7</b>		<b>5</b>	<b>19</b>													<b>28</b>		<b>28</b>		
<b>Average Deliveries / Removals Per Day</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Average Total two-way HGV movements (Deliveries / Removals) Per Day</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>			















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
<b>Site Enabling</b>																				
HGVs	3000	3000	1500																	
LGVs	950	450	250																	
<b>Substation Works</b>																				
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
<b>Overhead Line Works</b>																				
HGVs						268	268	268	268	402	402			134	264	264			402	402
LGVs						360	360	360	360	360	360			180	360	360				
<b>TOTALS</b>																				
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