

# **East Anglia TWO Offshore Windfarm**

## Appendix 26.23

HGV and LCV Traffic Assigned to the Construction Programme (Scenario 1)

## **Environmental Statement Volume 3**

Applicant: East Anglia TWO Limited Document Reference: 6.3.26.23

SPR Reference: EA2-DWF-ENV-REP-IBR-000918 023 Rev 01

Pursuant to APFP Regulation: 5(2)(a)

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### East Anglia TWO Offshore Windfarm Environmental Statement



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#### Landfall - Average Materials and Welfare and Operation Plant Daily HGV Movements

HDD At Landfall Establish Landfall HDD construction compound / Topsoil Strip in Landfall Laydown Area Mobilisation or HDD Kit and Welfare to Landfall Mobilisation or HDD Kit and Welfare to Landfall 22 HDD Drilling works & Ductling (assume working 247 7 days a week) Demobilisation of HDD kit and welfare 22 Establish ECO Wilthin Landfall Laydown Area Construction of CCS Mobilisation of Welfare and Operation Plant to CCS 12 Transition Bays at Landfall Ecovariation of transition bay base 44 Construction of transition bay base 45 Construction of Cables in Transition Bays 66 Transition bay Walls 75 Transition bay vorol and backfull over transition bay 46 Landfall Compound Removal and Reinstatement 47 Removal of CCS within Landfall Laydown Area and demobilisation of welfere 48 Average Section Skip HGV Movements Per Day 286		Total HGVs																		Mo	nth																	
Activity	Days	Total novs	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	2
DD At Landfall																																						
	cc	374				-																																
Topsoil Strip in Landafall Laydown Area	00	3/4			0	٥	0																															
	22	68					4																															
HDD Drilling works & Ducting (assume working 24/7 7 lays a week)	240	2,318						10	10	10	10	10	10	10	10																					1		
	22	68														4																						
Establish CCS within Landfall Laydown Area																																						
Construction of CCS	66	312			5	5	5																															
Mobilisation of Welfare and Operation Plant to CCS	22	48					3																															
Fransition Bays at Landfall																																						
Excavation of transition bays	44	91										3	3																									
Construction of transition bay base	44	18											- 1	- 1																								
Connection of Cables in Transition Bays	66	0												0	0	0																						
Fransition bay Walls	44	30													- 1	- 1																						
Fransition bay roof and backfill over transition bay	44	42													1	1																						
andfall Compound Removal and Reinstatement	44	374																																		9	9	
	66	360																																		6	6	
Average Section Skip HGV Movements Per Day	286	168					- 1	1	- 1	1	1	1	1	1	1	1																				- 1	- 1	
		Total HGVs per day	0	0	11	11	19	11	11	11	11	14	15	12	13	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16	
	Total two-way Ho	V movements per day	0	0	22	22	38	22	22	22	22	28	30	24	26	14	n	0	n	n	n	0	n	0	n	0	0	n	0	0	0	n	0	0	0	32	32	- 1

#### Landfall - Construction Plant Requirements

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

#### Landfall - Average Daily Personnel Requirements

	Total Working	Total Person Days																		Mon																		
(general labourers, drillers, drilling foremen,	Days	Total T croon bays	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22 2	23 2	4 25	5 26	1 2	27	28	29	30	31	32	33	34	35	36
Establish Landfall HDD construction compound	78	234			3	3	3																															
HDD Drilling works & Ducting (assume working 24/7 7 days a week) Includes Admin of HDD Compound	240	1,440						6	6	6	6	6	6	6	6																							
Demobilisation of HDD Kit and Welfare to Landfall Compound	26	156														6																						
Establish CCS within Landfall Laydown Area																																						
Construction of CCS	78	234			3	3	3																															
Transition Bays at Landfall																																						/ /
Excavation of transition bays	52	156										3	3																									
Construction of transition bay base	52	156											3	3																								
Connection of Cables in Transition Bays	78	234												3	3	3																						
Transition bay Walls and Roof	52	156													3	3																						
Backfill over transition bay	52	156													3	3																						
Landfall Compound Removal and Reinstatement	52	156																																		3	3	
Removal of CCS within Landfall Laydown Area and demobilisation of welfere	78	234																																		3	3	3
Plant Operators																																						
Overall Plant Operators	286	4,420			19	19	19					9	12	8	18	18																				16	16	16
Landfall HDD Engineering Personnel (non HDD)																																						
1 x engineer / surveyor, 1 x Foreman	286	572			2	2	2					2	2	2	2	2																				2	2	2
	Average To	otal Employees per day	0	0	27	27	27	6	6	6	6	20	26	22	35	35	0	0	0	0	0	0	0	0	0	) 0	0		0	0	0	0	0	0	0	24	24	21
Maximum Total Employee Two-v	vay Movements F	Per Day (car/small van)	0	0	54	54	54	12	12	12	12	40	52	44	70	70	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	48	48	42

Section 1 - Average Materials and Welfare and Operation Plant Daily HGV Movements

A add the	Total Working	T-4-11101/-																		Month																	
Activity	Days	Total HGVs	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 accesses	44	338	8	8																																	
Mobilisation of Welfare and Operation Plant to CCS	44	48	2	2																																	
Site preparation including fencing, temporary drainage and haul road construction.	44	408	10	10																																	
Onshore Export Cable Installation East of SPA																																					
Trench Route Clearance / Topsoil Strip	44	0					0	0																													
Trench Excavation	220	461							3	3	3	3	3	3	3	3	3	3																			
Duct Installation	220	277							2	2	2	2	2	2	2	2	2	2																			
Trench Backfill	198	21								- 1	1	- 1	1	- 1	1	1	1	1																			
Jointing Bay Excavation	242	459								2	2	2	2	2	2	2	2	2	2	2																	
Jointing Bay Base Constriction	198	31										- 1	1	- 1	1	- 1	- 1	- 1	1	1																	
Pulling and connection of cables	198	85											1	- 1	1	- 1	- 1	- 1	1	1 1																	
Jointing Bay Walls and Roof	198	93												- 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
Medium Length HDD crossing of Obstacle 2.1																																					
Establish Onshore HDD Entry Pit compound	66	345					6	6	6																												
Mobilisation of HDD Kit and Welfare to Onshore	22	63								3																											
drilling Compound HDD Drilling works & Ducting (assume working 24/7	120	208								2	2	2	2																								
7 days a week) HDD Drilling risk programme 'float' (Total HDD HGV movements included in HDD Drilling Works &	30	0												0																							
Demobilisation of HDD kit and welfare	22	63													3																						
Removal of Onshore HDD Entry pit compound	66	345															6	6	6																		
Movement of fence line to minimum extents	88	0																				0	0	0	0												
Haul Road Removal (includes removal of fencing) and reinstatement	66	408																																	7	7	7
Demobilisation of Welfare from CCS	66	48																																	1	-1	- 1
Construction consolidation site and access road Removal	154	338																				3	3	3	3										3	3	3
Average Section Skip HGV Movements Per Day	550	230	- 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	21	21	0	0	7	7	12	14	11	12	13	12	15	12	18	18	12	6 3	2	4	4	4	4	0	0	0	0	0	0	0	0	0	12	12	12
1		/ movements per day		42	0	0	14	14	24	28	22	24	26	24	30	24	36	36	24	12 6	4	8	8	8	8	0	0	0	0	0	0	0	0	0	24	24	24
	i otai two-way HGV	r movements per day	42	42	0	0	14	14	24	28	22	24	26	24	30	24	36	36	24	12 6	4	8	8	8	8	0	0	0	0	U	U	U	U	U	24	24	

Section 1 - Construction Plant Requirements

																			Month																	
Plant —	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	1								2	2	2				2	2	2	2										2	2	2
30T Excavator	6	6			4	4	4	4	4	4	4	4	4	4	4	4	4	2			2	2	2	2										3	3	3
20T Dumper	6	6			5	5	5	6	6	6	6	6	6	6	8	8	4	2			2	2	2	2										6	6	6
Smooth Drum vibrio road roller	2	2			2	2	1								- 1	1	- 1				- 1	1	1	- 1										2	2	2
21T excavator	2	2			3	3	3	3	3	3	3	3	3	3	3	3	2	1			- 1	- 1	- 1	- 1										3	3	3
	2	2			2	2	2	3	3	3	3	3	3	3	3	3	2	1			- 1	1	- 1	- 1										3	3	3
11 2 1	2	2			3	3	3	3	3	3	3	3	3	3	3	3	2				2	2	2	2										3	3	3
Trench Roller							2	2	2	2	2	2	2	2	2	2																		2	2	2
Tractor & fencing kit	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
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
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
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										1	1	- 1
Cement mixer												1	1	1	1	1	- 1	1	- 1	1															l '	ı
Mobile crane												1	- 1	- 1	- 1	1	- 1	1	- 1	1																
Grader	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	1																
Mobile concrete pump										1	1	1	1	1	1	1	1	1																		
Telehandler	1	1			2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1																
Mobile self-contained welfare unit	1	1																																2	2	2
Crawler Crane							1	1	1	1	1	2	2	2	2	2	- 1	1	1	1																
Mobile generator	2	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	2	2			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																																		
Pump							1	2	2	2	2	2	2	2	2	2	2	2	2	1														1	1	- 1
	34	34	0			_	34	34	34	35	_	_	41	_	_			25						19	_	0	0	_	0	0	0	0	0	36	36	36
	34	0	34	_	_	_	8	6	0	1	2	4	0	0	6	0	10	12	8		19	0	0	0	19	0	0	0	0	0	0	0	0	36	0	33
	2	0	2	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	2	0	2
Average Total two-way HGV movements (Deliveries / Removals) Per Day	4	0	4	0	4	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	4	0	4

#### Section 1 - Average Daily Personnel Requirements

Number of Additional Site Personel Per Activity	Total Working																			Mon	th																	
(general labourers, drillers, drilling foremen, electricians, joiners, bricklayers etc)	Days	Total Person Days	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	52	156	3	3																																		
Site preparation including fencing, temporary drainage and haul road construction	52	208	4	4																																		
Onshore Export Cable Installation East of SPA																																						
Trench Route Clearance / Topsoil Strip	52	104					2	2																														
Trench Excavation	260	390							3	2	2	2	- 1	- 1	- 1	- 1	- 1	1																				
Duct Installation	260	390							3	2	2	2	- 1	- 1	- 1	- 1	- 1	1																				
Trench Backfill	234	312								2	2	2	- 1	- 1	- 1	- 1	- 1	1																				
Jointing Bay Excavation	286	416								2	2	2	- 1	- 1	- 1	- 1	- 1	1	2	2																		
Jointing Bay Base Constriction	234	312										2	- 1	- 1	- 1	- 1	- 1	1	2	2																		
Pulling and connection of cables	234	338											- 1	- 1	1	- 1	- 1	1	2	2	3																	
Jointing Bay Walls and Roof	234	390												- 1	1	- 1	- 1	1	2	2	3	3																
Backfill over Jointing Bays	52	156																																		3	3	
Trench Route Reinstatement / Topsoil Reinstatement	78	234																																		3	3	3
Medium Length HDD crossing of Obstacle 2.1 and 2.2																																						
Establish Onshore HDD drilling compound	78	234					3	3	3																													
HDD Drilling works & Ducting (assume working 24/7 7 days a week) Includes Admin of HDD Compound	120	240								2	2	2	2																									
HDD Drilling risk programme 'float'	30	120												4																								
Demobilisation of HDD kit and welfare	26	78													3																							
Removal of Onshore HDD compound	78	234															3	3	3																			
Movement of fence line to minimum extents	104	312																					3	3	3	3												
Haul Road Removal (includes removal of fencing) and reinstatement	78	234																																		3	3	3
Construction consolidation site d and access road Removal	182	546																					3	3	3	3										3	3	3
Plant Operators																																						
Overall Plant Operators	650	16,666	29	29			28	28	28	27	27	28	30	33	33	33	39	39	29	17	9	7	16	16	16	16										28	28	28
Section 1 Engineering Personnel																																						
Lead Engineer, 1 x Assistant Engineers, 1 x surveyors, 1 x Foreman	650	2,600	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
	Average To	otal Employees per day	40	40	0	0	37	37	41	41	41	44	42	48	47	44	53	53	44	29	19	14	26	26	26	26	0	0	0	0	0	0	0	0	0	44	44	41
Maximum Total Employee Two-w	ay Movements F	Per Day (car/small van)	80	80	0	0	74	74	82	82	82	88	84	96	94	88	106	106	88	58	38	28	52	52	52	52	0	0	0	0	0	0	0	0	0	88	88	82

Section 2 - Average Materials and Welfare and Operation Plant Daily HGV Movements

A add the	Total Working	T-1-1110V-																		м	onths																	
Activity	Days	Total HGVs	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 sites and site accesses (month 6 construction of Hundred River CCS)	110	451	5	5	5	5		5																														
Mobilisation of Welfare and Operation Plant to CCS	110	67	- 1	- 1	- 1	- 1		- 1																														
Site preparation including fencing, temporary drainage and haul road construction	66	588				9	9	9																														
Onshore Export Cable Installation Sction 2A and 2B																																					/ 1	
Trench Route Clearance / Topsoil Strip	44	0					0	0																														
Trench Excavation	220	638							3	3	3	3	3	3	3	3	3	3																				
Duct Installation	220	386							2	2	2	2	2	2	2	2	2	2																				
Trench Backfill	198	29								- 1	1	- 1	- 1	- 1	- 1	- 1	- 1	- 1																				
Jointing Bay Excavation	242	643								3	3	3	3	3	3	3	3	3	3	3																		
Jointing Bay Base Constriction	198	44										- 1	- 1	- 1	1	- 1	- 1	- 1	1	- 1																		
Pulling and connection of cables	198	105											1	- 1	1	- 1	- 1	- 1	1	- 1	- 1																	
Jointing Bay Walls and Roof	198	131												- 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
Medium Length Onshore HDD Crossing of Obstacle 2.1 and 2.2																																						
Establish Onshore HDD Entry Pit compound	44	149						4	4																													
Mobilisation of HDD Kit and Welfare to Onshore drilling Compound	22	15								- 1																												
HDD Drilling works & Ducting (assume working 24/7 7 days a week)	120	0								0	0	0	0																									
HDD Drilling risk programme 'float' (Total HDD HGV movements included in HDD Drilling Works &	30	0												0																								
Demobilisation of HDD kit and welfare	22	15													1																							
Removal of Onshore HDD Enry pit compound	44	149															4	4																				
Movement of fence line to minimum extents	88	0																					0	0	0	0												
Haul Road Removal (includes removal of fencing) and reinstatement	66	588																																		9	9	9
Demobilisation of Welfare from CCS	66	67		1																																2	2	2
Construction consolidation site and access road	154	451																					3	3	3	3										3	3	3
Removal  Average Section Skip HGV Movements Per Day	594	354	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	7	7	7	16	10	20	10	11	10	11	12	13	14	13	17	17	7	7	3	2	4	4	4	4	0	0	0	0	0	0	0	0	0	15	15	15
	Total two-wa	y HGV movements per day		14	14	32	20	40	20	22	20	22	24	26	28	26	34	34	14	14	6	4	8	8	8	8	0	0	0	0	0	0	0	0	0	30		30
		., per day			1																_			1 - 1	-	-	-	-	- 1			,						

Section 2 - Construction Plant Requirements

																		M	lonth																	
Plant	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	2	2	2	1								2	2	2				2	2	2	2										2	2	2
30T Excavator	3	3	3	6	4	4	4	4	4	4	4	4	4	4	4	4	4	2			2	2	2	2										3	3	3
20T Dumper	3	3	3	6	5	5	5	6	6	6	6	6	6	6	8	8	4	2			2	2	2	2										6	6	6
Smooth Drum vibrio road roller	- 1	1	- 1	2	2	2	1								- 1	1	1				1	1	1	1										2	2	2
21T excavator	- 1	1	- 1	2	3	3	3	3	3	3	3	3	3	3	3	3	2	1			1	1	1	- 1										3	3	3
ST Forward Tipping Dumper	- 1	1	1	2	2	2	2	3	3	3	3	3	3	3	3	3	2	- 1			- 1	- 1	- 1	1										3	3	3
Loading shovel	1	1	1	2	3	3	3	3	3	3	3	3	3	3	3	3	2				2	2	2	2										3	3	3
Trench Roller							2	2	2	2	2	2	2	2	2	2																		2	2	2
Tractor & fencing kit	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
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										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																	
Pre-cast concrete truck												- 1	- 1	- 1	- 1	- 1	1	1	1	1																
Mobile concrete pump										1	1	1	- 1	- 1	- 1	1	1	1																		
Telehandler	- 1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1																
Mobile self-contained welfare unit	- 1	1	1	1																														2	2	2
Crawler Crane							1	1	- 1	1	- 1	2	2	2	2	2	1	1	1	1																
Mobile generator	- 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	2	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	21		21	34 13	32 8	32 0	34	34 6	34 0	35 1	37	41	41	41 0	47 6	47 0	37 10	25 12	17 8	12 5	19 19	19	19 0	19 0	40	•				0			0	36		36 36
Total Deliveries / Removals  Average Deliveries / Removals Per Day	21	0	0	13	1	0	8	1	0	1	1	1	0	0	6 1	0	10	12	8	1	19	0	0	0	19	0	0	0	0	0	0	0	0	36 2	0	36 2
Average Total two-way HGV movements (Deliveries / Removals) Per Day			0		2	0	2	2	0	2	2	2	0		2	0	2	2	2	2	2	0	0	0	2	0	0	0	0	0	0	0	0	4	0	4
Average Total two-way nov movements (Deliveries / Removals) Per Day			1 -		-		-	-							-		-	-	-	- 1	-			·	- 1	·				ŭ				-	·	

Section 2 - Average Daily Personnel Requirements

Number of Additional Site Personel Per Activity	Total Working																			М	onth																
(general labourers, drillers, drilling foremen, electricians, joiners, bricklayers etc)	Days	Total Person Days	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 2	21	22	23	24	25 26	27	7	28 29	30	31	32	33	34	35	36
Establish construction consolidation sites and site accesses (month 6 construction of Hundred River CCS)	130	390	3	3	3	3		3																													
Site preparation including fencing, temporary drainage and haul road construction	78	312				4	4	4																													
Onshore Export Cable Installation Sction 2A and 2B																																					
Trench Route Clearance / Topsoil Strip	52	104					2	2																													
Trench Excavation	260	390							3	2	2	2	1	1	1	1	1	1																			
Duct Installation	260	390							3	2	2	2	1	1	1	1	1	1																			
Trench Backfill	234	312								2	2	2	1	1	1	1	1	1																			
Jointing Bay Excavation	286	416								2	2	2	1	1	1	1	1	1	2	2																	
Jointing Bay Base Constriction	234	312										2	1	1	1	1	1	1	2	2																	
Pulling and connection of cables	234	338											1	1	1	1	1	1	2	2	3																
Jointing Bay Walls and Roof	234	390												1	1	1	1	1	2	2	3	3															
Backfill over Jointing Bays	52	156																																	3	3	
Trench Route Reinstatement / Topsoil Reinstatement	78	234																																	3	3	3
Medium Length Onshore HDD Crossing of Obstacle 2.1 and 2.2																																					
Establish Onshore HDD drilling compound	52	156						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	26	78													3																						
Removal of Onshore HDD compound	52	156															3	3																			
Movement of fence line to minimum extents	104	312																					3	3	3	3			_								
Haul Road Removal (includes removal of fencing) and reinstatement	78	234																																	3	3	3
Construction consolidation site and access road Removal	182	546																					3	3	3	3									3	3	3
Plant Operators																																					
Overall Plant Operators	702	17,316	18	18	18	29	28	28	28	27	27	28	30	33	33	33	39	39	29	17	9	7 1	16	16	16	16									28	28	28
Section 2 Engineering Personnel																																					
Lead Engineer, 1 x Assistant Engineers, 1 x surveyors, 1 x Foreman	702	2,808	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
	Avera	age Total Employees per da	y 25	25	25	40	38	44	41	40	40	43	41	48	47	44	53	53	41	29	19	14 2	26	26	26	26	0 0	0		0 0	0	0	0	0	44	44	41
Maximum Total Employee T	wo-way Movem	ents Per Day (car/small van	50	50	50	80	76	88	82	80	80	86	82	96	94	88	106	106	82	58	38	28 5	52	52	52	52	0 0	0		0 0	0	0	0	0	88	88	82

Section 3 - Average Materials and Welfare and Operation Plant Daily HGV Movements

	Total Working																					Months																		
Activity	Days	Total HGVs	1 2	2 :	3	4	5	6	7	8	9	10	1	1	12	13	14	15	16	17	18	19	20	0 2	1	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Establish construction consolidation site compound at Aldeburgh Road Crossing	22	113						6																																
Mobilisation of Welfare and Operation Plant to CCS	22	19						1																																
Site preparation including fencing, temporary drainage, haul road construction and access construction.	44	390					9	9																																
Onshore Export Cable Installation Sction 3A and 3B																																								
Trench Route Clearance / Topsoil Strip	44	0					0	0																																
Trench Excavation	220	403							2	2	2	2	2	2	2	2	2	2	2																					
Duct Installation	220	243							2	2	2	2	2	2	2	2	2	2	2																					
Trench Backfill	198	19								- 1	- 1	- 1	1		1	1	1	- 1	- 1																					
Jointing Bay Excavation	242	276								2	2	2	2	2	2	2	2	2	2	2	2																			
Jointing Bay Base Constriction	198	19										- 1	1		1	1	1	- 1	- 1	- 1	1																			
Pulling and connection of cables	198	62											- 1		1	1	1	- 1	- 1	- 1	1	- 1																		
Jointing Bay Walls and Roof	198	56													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																							)	0	0	0												
Haul Road and Access Removal (includes removal of fencing) and reinstatement	66	390																																				6	6	6
Demobilisation of Welfare from CCS	66	19																																				- 1	1	1
Construction Consolidation Site	154	113																								1	1	1										- 1	1	1
Average Section Skip HGV Movements Per Day	506	92					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	0 0	)	0	0	10	17	5	8	8	9	10	0	11	11	11	11	11	6	6	3	2	: :	2	2	2	2	0	0	0	0	0	0	0	0	0	9	9	9
	Total two-wa	y HGV movements per day	0 0	,	0	0	20	34	10	16	16	18	21	0	22	22	22	22	22	12	12	6	4		ı	4	4	4	0	0	0	0	0	0	0	0	0	18	18	18

Section 3 - Construction Plant Requirements

																	N	lonth																	
Plant	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				4	4															2	2	2	2										2	2	2
30T Excavator				5	5	2	4	4	4	4	4	4	4	4	4	2	2			2	2	2	2										3	3	3
20T Dumper				5	5	2	6	6	6	6	6	6	6	6	6	2	2			2	2	2	2										6	6	6
Smooth Drum vibrio road roller				2	2															1	- 1	1	- 1										2	2	2
21T excavator				2	2	2	3	3	3	3	3	3	3	3	3	1	1			1	1	1	- 1										3	3	3
5T Forward Tipping Dumper				2	2	2	3	3	3	3	3	3	3	3	3	1	1			1	1	1	1										3	3	3
Loading shovel				3	3	2	3	3	3	3	3	3	3	3	3					2	2	2	2										3	3	3
Trench Roller						2	2	2	2	2	2	2	2	2	2																		2	2	2
Tractor & fencing kit				1	1															1	1	1	- 1										┈╴	ш₹	
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
Tractor & Fuel bowser (or self-propelled)				1	1	2	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	2	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																														
Cable laying tracked crane																																	, 1		
Cable winch										1	1	- 1	1	1	- 1	- 1	1	1																	
Pre-cast concrete truck											1	1	1	1	1	1	1	1	1																
Mobile concrete pump									1	- 1	1	- 1	- 1	- 1	- 1	- 1	1																		
Telehandler				1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	- 1																
Mobile self-contained welfare unit						2																											2	2	2
Crawler Crane						1	1	1	- 1	1	2	2	2	2	2	1	1	1	1																
Mobile generator				2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	1	1	- 1	1	1										2	2	2
Temporary lighting				2	2	16	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																														
Pump						4	2	2	2	2	2	2	2	2	2	2	2	2	1														1	1	1
Total Plant Onsite In Section Per Month	0 0	0	0			45	34	34	35	37	41		41	41	41	25	25	17	12	19	19	19		0	0	0	0	0	0		0	0		36	36
Total Deliveries / Removals	0 0	0	0			43	31	0	1	2	4	0	0	0	0	16	0	8	5	19	0	0	0	19	0	0	0	0	0	0	0	0	36	0	36
Average Deliveries / Removals Per Day	0 0	0	0			4	2	0	1	1	2	0	0	0	0	1	0	1 2	1 2	1	0	0	0	2	0	0	0	0	0	0	0	0	2	0	4
Average Total two-way HGV movements (Deliveries / Removals) Per Day	0 0	0	0	4	U	4	4	U	2	2	2	U		U	0	2		2	2	2	0	0	0	2	0			J	J	U	U	J	4	_ U	4

Section 3 - Average Daily Personnel Requirements

Number of Additional Site Personel Per Activity	Total Working																				Month																	
(general labourers, drillers, drilling foremen, electricians, joiners, bricklayers etc)	Days	Total Person Days	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	26	78						3																														
Site preparation including fencing, temporary drainage, haul road construction and access construction.	52	208					4	4																														
Onshore Export Cable Installation Sction 3A and 3B																																						
Trench Route Clearance / Topsoil Strip	52	104					2	2																														
Trench Excavation	260	390							3	2	2	2	- 1	- 1	- 1	1	- 1	- 1																				
Duct Installation	260	390							3	2	2	2	- 1	- 1	- 1	- 1	- 1	- 1																				
Trench Backfill	234	312								2	2	2	1	- 1	- 1	- 1	- 1	- 1																				
Jointing Bay Excavation	286	416								2	2	2	1	- 1	- 1	1	- 1	- 1	2	2																		
Jointing Bay Base Constriction	234	312										2	1	- 1	- 1	1	- 1	- 1	2	2																		
Pulling and connection of cables	234	338											- 1	- 1	1	1	- 1	- 1	2	2	3																	
Jointing Bay Walls and Roof	234	390												- 1	- 1	- 1	- 1	- 1	2	2	3	3																
Backfill over Jointing Bays	52	156																																		3	3	
Trench Route Reinstatement / Topsoil Reinstatement	78	234																																		3	3	3
Movement of fence line to minimum extents  Haul Road and Access Removal (includes removal of	104	312																					3	3	3	3												
fencing) and reinstatement	78	234																																		3	3	3
Construction consolidation site Removal	182	546																					3	3	3	3										3	3	3
Plant Operators																																						
Overall Plant Operators	598	14,404					30	30	19	27	27	28	30	33	33	33	33	33	17	17	9	7	16	16	16	16										28	28	28
Section 3 Engineering Personnel																																						
Lead Engineer, 1 x Assistant Engineers, 1 x surveyors, 1 x Foreman	598	2,392					4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4										4	4	4
	Avera	ige Total Employees per day	0	0 (	0	0	40	43	29	39	39	42	40	44	44	44	44	44	29	29	19	9 14	26	26	26	26	0	0	0	0	0	0	0	0	0	44	44	41
Maximum Total Employee	Two-way Movem	ents Per Day (car/small van	0	0 (	0	0	80	86	58	78	78	84	80	88	88	88	88	88	58	58	38	3 28	52	52	52	52	0	0	0	0	0	0	0	0	0	88	88	82

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

Activity	Total Working	Total HGVs																		Months																	
Activity	Days	Total HGVs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18 1	20	0	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	953	11	11	11	11																															
Mobilisation of Welfare and Operation Plant to CCS	88	98	2	2	2	2																															
Construction of tarmac haul road from access to CCS	44	227	6	6																														1			
Site preparation including fencing, temporary drainage and haul road construction.	66	391		6	6	6																															
Onshore Export Cable Installation Sction 4A and 4B																																					
Trench Route Clearance / Topsoil Strip	44	0					0	0																													
Trench Excavation	220	425							2	2	2	2	2	2	2	2	2	2																1			
Duct Installation	220	256							2	2	2	2	2	2	2	2	2	2																1			
Trench Backfill	198	20								1	1	- 1	1	1	1	- 1	- 1	- 1																1			
Jointing Bay Excavation	242	368								2	2	2	2	2	2	2	2	2	2	2														1			
Jointing Bay Base Constriction	198	25										1	1	1	1	1	- 1	1	1	1														1			
Pulling and connection of cables	198	68											1	1	1	1	- 1	1	1	1 1														1			
Jointing Bay Walls and Roof	198	75												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																					0 0	0	0									1			
Haul Road Removal (includes removal of fencing) and reinstatement	66	618																																	10	10	10
Demobilisation of Welfare from CCS	66	98																																	2	2	2
Construction consolidation site and access road Removal	154	953																					7 7	7	7										7	7	7
Average Section Skip HGV Movements Per Day	792	840	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
	·	Total HGVs per day	21	27	21	21	2	2	6	9	9	10	11	12	12	12	12	12	7	7 4	3	3	9 9	9	9	2	2	2	2	2	2	2	2	2	21	21	21
	Total two-way i	HGV movements per day	42	54	42	42	4	4	12	18	18	20	22	24	24	24	24	24	14	14 8	6	; T	18 18	18	18	4	4	4	4	4	4	4	4	4	42	42	42

#### Section 4 - Construction Plant Requirements

																		М	onth																	
Plant	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	2	2	2	2	2															2	2	2	2										2	2	2
30T Excavator	3	4	4	4	2	2	2	4	4	4	4	4	4	4	4	4	2	2			2	2	2	2										3	3	3
20T Dumper	3	6	6	6	2	2	2	6	6	6	6	6	6	6	6	6	2	2			2	2	2	2										6	6	6
Smooth Drum vibrio road roller	- 1	2	2	2	- 1	1															1	1	1	- 1										2	2	2
21T excavator	- 1	2	2	2	- 1	- 1	2	3	3	3	3	3	3	3	3	3	1	1			1	1	1	- 1										3	3	3
5T Forward Tipping Dumper	1	2	2	2	- 1	- 1	2	3	3	3	3	3	3	3	3	3	1	1			1	- 1	1	- 1										3	3	3
Loading shovel	- 1	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3					2	2	2	2										3	3	3
Trench Roller							2	2	2	2	2	2	2	2	2	2																		2	2	2
Tractor & fencing kit	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
Tractor & Fuel bowser (or self-propelled)	- 1	1	1	1	- 1	- 1	2	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	2	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	2	2	2																																
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	1																
Mobile concrete pump										- 1	1	1	- 1	1	- 1	1	- 1	1																		
Telehandler	- 1	1	- 1	- 1			- 1	2	2	2	2	2	2	2	2	2	2	2	1	1																
Mobile self-contained welfare unit	1	1	1	1	- 1	- 1	2																											2	2	2
Crawler Crane							- 1	- 1	1	- 1	- 1	2	2	2	2	2	- 1	1	1	1																
Mobile generator	- 1	2	2	2	- 1	1	4	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	- 1										2	2	2
Temporary lighting	- 1	2	2	2	- 1	1	16	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							4	2	2	2	2	2	2	2	2	2	2	2	2	1														1	1	1
Total Plant Onsite In Section Per Month		33	33	33	16	16	45	34	34	35	37	41	41	41	41	41	25	25	17	12	19	19	19	19		0	0	0	0	0	0	0	0	36		36
Total Deliveries / Removals	21	12	0	0	17	0	35 2	31	0	1	1	1	0	0	0	0	16	0	8	5 1	19	0	0	0	19	0	0	0	0	0	0	0	0	36 2	0	36 2
Average Deliveries / Removals Per Day  Average Total two-way HGV movements (Deliveries / Removals) Per Day			0	0	2	0	4	4	0	2	2	2	0	0	0	0	2	0	2	2	2	0	0	0		0	0	0	0	0	0	0	0	4	0	4
Average Total two-way riGV movements (Deliveries / Removals) Per Day		1 -	_ •				-		<u> </u>			1 -		1 0	_ •	1 0						,	-	,	-	ŭ		ŭ				,		-		

#### Section 4 - Average Daily Personnel Requirements

Number of Additional Site Personel Per Activity	Total Working																			M	onth																	
(general labourers, drillers, drilling foremen, electricians, joiners, bricklayers etc)	Days	Total Person Days	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 access off Snape Road	104	312	3	3	3	3																																
Construction of tarmac haul road from access to CCS	52	156	3	3																																		
Site preparation including fencing, temporary drainage and haul road construction	78	312		4	4	4																																
Onshore Export Cable Installation Sction 4A and 4B																																						
Trench Route Clearance / Topsoil Strip	52	104					2	2																														
Trench Excavation	260	390							3	2	2	2	- 1	- 1	- 1	1	- 1	1																				
Duct Installation	260	390							3	2	2	2	- 1	- 1	- 1	- 1	- 1	1																				
Trench Backfill	234	312								2	2	2	- 1	1	- 1	1	- 1	1																				
Jointing Bay Excavation	286	416								2	2	2	1	1	- 1	1	- 1	- 1	2	2																		
Jointing Bay Base Constriction	234	312										2	1	1	- 1	1	- 1	- 1	2	2																		
Pulling and connection of cables	234	338											1	1	- 1	1	- 1	- 1	2	2	3																	
Jointing Bay Walls and Roof	234	390												1	1	1	- 1	1	2	2	3	3																
Backfill over Jointing Bays	52	156																																		3	3	
Trench Route Reinstatement / Topsoil Reinstatement	78	234																																		3	3	3
Movement of fence line to minimum extents	104	312																					3	3	3	3												
Haul Road Removal (includes removal of fencing) and reinstatement	78	234																																		3	3	3
Construction consolidation site and access road Removal	182	546																					3	3	3	3										3	3	3
Plant Operators																																						
Overall Plant Operators	702	16,172	18	28	28	28	13	13	19	27	27	28	30	33	33	33	33	33	17	17	9	7	16	16	16	16										28	28	28
Section 4 Engineering Personnel																																						
Lead Engineer, 1 x Assistant Engineers, 1 x surveyors, 1 x Foreman	702	2,808	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 4.1																																						
Head Engineer, 2 x Admin Staff, QS, Assistant QS, Overall Site Foreman, H&S Supervisor, H&S Assistant, Environmental Clerk, Assistant Environemental Clerk, Lead Surveyor, 2 X catering staff, 2 x client representative and 2 x owners engineers	936	15,912	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
	Averag	e Total Employees per day	y 45	59	56	56	36	36	46	56	56	59	57	61	61	61	61	61	46	46	36	31	43	43	43	43	17	17	17	17	17	17	17	17	17	61	61	58
Maximum Total Employee Tv	o-way Movemer	nts Per Day (car/small van)	90	118	112	112	72	72	92	112	112	118	114	122	122	122	122	122	92	92	72	62	86	86	86	86	34	34	34	34	34	34	34	34	34	122	122	116

#### Substation - Average Materials and Welfare and Operation Plant Daily HGV Movements

	Total																																					=
Activity	Working Davs	Total HGVs	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	110	1,087				10	10	10	10	10																												
Construction Compound Construction	88	621				8	8	8	8																													
Welfare Mobilisation	66	54				2	2	2																														
Site Clearence Works	88	701					8	8	8	8																												
Development Platform Earthworks	88	62								1	1	1	1																									
Foundation Works	220	5,729									27	27	27	27	27	27	27	27	27	27																		
Sub-structure Works	110	80														1	1	1	- 1	1																		
Super-Structure Works	110	24																1	- 1	1	- 1	1																
M&E Kit Installation	110	904																		9	9	9	9	9														
Wiring Up	132	0																			0	0	0	0	0	0												
Commissioning	264	0																			0	0	0	0	0	0	0	0	0	0	0	0						
Reinstatement	66	0																																		0	0	0
Construction Compound Removal and Welfare Demobilisation	66	675																																		11	11	11
Average Section Skip HGV Movements Per Day	I	264				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
,		HGVs per day		0	0	21	29	29	27	20	29	29	29	28	28	29	29	30	30	39	11	11	10	10	1	1	1	1	1	1	1	1	1	1	1	12	12	12
Total two-wa	y HGV move	ments per day	0	0	0	42	58	58	54	40	58	58	58	56	56	58	58	60	60	78	22	22	20	20	2	2	2	2	2	2	2	2	2	2	2	24	24	24

#### Substation - Monthly Construction Plant Requirements

																	N	lonths																		
Activity	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				4	6	6	6	6	4	4	4	2	2	2	2	2	2	2																2	2	2
30T excavator				4	6	6	6	6	6	4	4	2	2	2	2	2	2	2																2	2	2
20T dumper				4	6	6	6	6	6	4	4	2	2	2	2	2	2	2																2	2	2
Smooth Drum vibro road roller				4	4	4	4	4	4	4	4	2	2	2	2	2	2	2																2	2	2
21T excavator				4	6	6	6	6	6	4	4	2	2	4	4	4	4	4																2	2	2
5T Forward Tipping Dumper				4	6	6	6	6	6	4	4	2	2	4	4	4	4	4																2	2	2
Loading shovel				4	4	4	4	4	4	2	2	2	2	2	2	2	2	2																2	2	2
Tractor & trailer				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
Tractor & Fuel bowser (or self-propelled)				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
Tractor & Water bowser (for dust supression)				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2																2	2	2
Grader				4	4	4	4	4	4	4	4	2	2	2	2	2	2	2																2	2	2
Mobile self-contained welfare unit				2	2	2	2	2	2														1			t		1	1	i	1			2	2	2
Road surface paver & roller				- 1	- 1	1	1	- 1	2	2	2	2	2	2	2	2	2	2					1			t		1	1	i	1					
Concrete batching plant									2	2	2	2	2	2	2	2	2	2	2	2														1	1	=
Dry-mix silos									4	4	4	4	4	4	4	4	4	4	4	4														+		$\overline{}$
Cement mixer																2	2	2	2	2														+		$\overline{}$
Mobile crane (light for general use)														2	2	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2				1	1	-
Mobile crane (heavy)																		2	2	2	2	2	2	2	2	2	2	2	2	2				1		-
Specialist heavy-lifting gantry & associated equipment																		2	2	2	2	2	2	2	2	2	2	2	2	2				1		-
Static crane																2	2	4	4	4	2	2	2	2	2	2	2	2	2	2				1		-
Pre-cast concrete truck									2	2	2	2	2	4	4	4	4	4	2	2														1		-
Mobile concrete pump									2	2	2	2	2	4	4	4	4	4	2	2														1		
Telehandler								2	2					2	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4				T		-
Mobile generator								2	2							2	2	4	4	4	4	4	4	4	4	4	4	4	4	4				1		-
3T Forward Tipping Dumper														2	2	2	2	2																1		-
Scissor lift																2	2	4	4	4	4	4	4	4	4	4	4	4	4	4				1		-
Mobile powered aerial platform (boom lift / 'cherry picker')																2	2	4	4	4	4	4	4	4	4	4	4	4	4	4				1		-
Scaffolding (deliveries)																8	8	16	16	16	16	16	16	16	16	16	16	16	16	16				1		-
Formwork (deliveries)									2	2	2	2	2	4	4	4	4	4	2	2														1		-
JCB Wheeled excavator														2	2	4	4	4	2	2														T		-
Forklift																		4	4	4	4	4	4	4	4	4	4	4	4	4				T		-
Pump (4 per delivery)								4	4	4	4	4	4	4	4	4	4	4																1		-
Temporary lighting (8 per delivery)								4	4																									2	2	2
Trench Roller								2	2																											-
Crawler Crane								- 1	- 1																									1		-
Total Plant Onsite In Section Per Month	0	0	0	41	51	51	51	66	77	54	54	40	40	58	58	82	82	106	68	68	48	48	48	48	48	48	48	48	48	48	0	0	0	22	22	22
Total Deliveries / Removals	0	0	0	41	10	0	0	15	15	23	0	14	0	18	0	24	0	24	38	0	20	0	0	0	0	0	0	0	0	0	48	0	0	26	0	0
Average Deliveries / Removals Per Week	0	0	0	11	3	0	0	4	4	6	0	4	0	5	0	6	0	6	10	0	5	0	0	0	0	0	0	0	0	0	12	0	0	7	0	0
Average Total two-way HGV movements (Deliveries / Removals) Per Week		0	0	22	6	0	0	8	8	12	0	8	0	10	0	12	0	12	20	0	10	0	0	0	0	0	0	0	0	0	24	0	0	14	0	0
Average Total two-way HGV movements (Deliveries / Removals) Per Day	0	0	0	5	2	0	0	2	2	3	0	2	0	2	0	3	0	3	4	0	2	0	0	0	0	0	0	0	0	0	5	0	0	3	0	0

#### Substation - Average Daily Personnel Requirements

Number of Additional Site Personel Per Activity	T-1-1																																					
(general labourers, drillers, drilling foremen,	Total Working	Total Person																	M	onths																		
electricians, joiners, bricklayers etc	Days	Days	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	130	520				4	4	4	4	4																												
Construction Compound Construction	78	234				3	3	3																														
Site Clearence Works	104	208					2	2	2	2																												
Development Platform Earthworks	104	312								3	3	3	3																									
Foundation Works	260	1,820									8	8	8	8	8	6	6	6	6	6																		
Sub-structure Works	130	884														8	8	6	6	6																		
Super-Structure Works	130	884																6	6	6	8	8																
M&E Kit Installation	130	1,196																		8	10	10	10	8														
Wiring Up	156	1,456																			8	8	10	10	10	10												
Commissioning	312	2,496																			6	6	6	6	6	6	10	10	10	10	10	10						
Reinstatement	78	468																																		6	6	6
Construction Compound Removal and Welfare Demobilisation	78	468																																		6	6	6
Plant Operators																																						
Overall Plant Operators	780	25,870				39	49	49	49	51	54	42	42	28	28	44	44	54	54	62	30	30	18	18	18	18	18	18	18	18	18	18				22	22	22
Substation Engineering Personnel																																						
Lead Engineer, 1 x Assistant Engineers, 1 x surveyors, 1 x Foreman	780	6,240				8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8				8	8	8
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	858	8,580				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
Avera	ge Total Emp	oloyees per day	0	0	0	64	76	76	73	78	83	71	71	54	54	76	76	90	90	106	80	80	62	60	52	52	46	46	46	46	46	46	10	10	10	52	52	52
Maximum Total Employee Two-way Movem	ents Per Day	(car/small van	0	0	0	128	152	152	146	156	166	142	142	108	108	152	152	180	180	212	160	160	124	120	104	104	92	92	92	92	92	92	20	20	20	104	104	104

#### National Grid Works - Average Materials and Welfare and Operation Plant Daily HGV Movements

Activity	Total Working	Total HGVs																		М	lonths																	
Activity	Days	Total nGVs	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
Construction of access roads for National Grid Over Head Line Works	22	187	9																																			
Construction of tarmac access road to Sealing End Compound	22	132							6																													
Project Substation - National Grid Connection	44	15								- 1	- 1																											
Removal of access road for National Grid Overhead Line Works	66	187																																		3	3	3
		Total HGVs per day	9	0	0	0	0	0	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
	Total two-way	HGV movements per day	18	0	0	0	0	0	12	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6

#### National Grid Works - Construction Plant Requirements

																		Mon	h																
Plant	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						2	2	2																								2	2	2
30T Excavator	3						2	2	2																								2	2	2
20T Dumper	3						2	2	2																								2	2	2
Smooth Drum vibrio road roller	- 1						2																										1	1	- 1
21T excavator	- 1						2	2	2																								- 1	- 1	1
ST Forward Tipping Dumper	- 1						2	2	2																								1	1	- 1
Loading shovel	- 1						2	2	2																								2	2	2
Trench Roller								2	2																									ı	
Tractor & fencing kit	- 1																																1	1	1
Tractor & trailer	- 1						1	1	- 1																								1	-1	1
Tractor & Fuel bowser (or self-propelled)	- 1						1	1	- 1																								1	1	1
Tractor & Water bowser (for dust suppression)	- 1						1	- 1	- 1																								1	1	1
Tractor & cable drum trailer																																			
Tractor & soil tiller, roller, seeder																																	1	- 1	1
Cement mixer																																			
Mobile crane																																			
Grader	- 1						1																										لـــــا		
Cable laying tracked crane																																			
Cable winch																																			
Pre-cast concrete truck																																			
Mobile concrete pump																																	لـــــا		
Telehandler	- 1							2	2																										
Mobile self-contained welfare unit	- 1						1	2	2																								2	2	2
Crawler Crane								- 1	- 1																										
Mobile generator	2							2	2													1							_				2	2	2
Temporary lighting	2							2	2		1											1					1	1	_				2	2	2
Road surface paver & roller							- 1																												
Pump								2	2																				_						
Total Plant Onsite In Section Per Month  Total Deliveries / Removals		0	22	0 22	0	0	20	28 16	28 0	0 28	0	0	0	0	0	0	0		_	0	0 0	0	0	0	0	0	0	0	_	_	0	0	22 22	22 0	22 22
Total Deliveries / Removals  Average Deliveries / Removals Per Day		0	1	1	0	0	1	16	0	28	0	0	0	0	0	0	0			0	0 0	0	0	0	0	0	0	0			0	0	1	0	1
Average Total two-way HGV movements (Deliveries / Removals) Per Day		0	2		0	0	2	2	0	4	0	0	0	0	0	0	0			0	0 0	0		0	0	0	0	0			0	0	2	0	2

#### National Grid Works - Average Daily Personnel Requirements

Number of Additional Site Personel Per Activity	Total Working	Total Person Days																		М	onth																	
(general labourers, drillers, drilling foremen, electricians, joiners, bricklayers etc)	Days	Total Person Days	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
Construction of access roads for National Grid Over Head Line Works	26	78	3																																			
Head Line Works Construction of tarmac access road to Sealing End Compound	26	52							2																													
Project Substation - National Grid Connection	52	312								6	6																											
Removal of access road for National Grid Overhead Line Works	78	234																																		3	3	3
Plant Operators																																						
Overall Plant Operators	182	3,224	17						19	20	20																									16	16	16
Engineering Personnel																																						
Lead Engineer / surveyor, 1 x Foreman	182	364	2						2	2	2																									2	2	2
	Average	Total Employees per day	22	0	0	0	0	0	23	28	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	21	21
Maximum Total Employee To	wo-way Movement	s Per Day (car/small van)	44	0	0	0	0	0	46	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	42	42

#### Total Vehicle Movement Requirements (National Grid Works)

<u> </u>																																					
Activity																		V	/eek																		
Activity	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	2	9 3	0 3	31	32	33	34	35	36
Materials and Welfare and Operation Plant Daily HGV Movements Total Two-way HGV Movements Per Day		0	0	0	0	0	12	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	0 (		0	0	0	6	6	6
Increase to account for Miscellaneous allowances (nominal 25% increase	) 23	0	0	0	0	0	15	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	0 (		0	0	0	8	8	8
Construction Plant Average Total two-way HGV Movements (deliveries / Removals) Per Da	<b>y</b> 0	0	2	2	0	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	0 (	)	0	0	0	2	0	2
Average total two-way HGV Movements Per Day	23	0	2	2	0	0	17	5	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	0 (		0	0	0	10	8	10
Maximum Total Employee Two-way Movements Per Day (car/small van)	44	0	0	0	0	0	46	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	0 (	)	0	0	0	42	42	42
Employee Two-Way Movmentes Plus additional 10% for Miscellaneous Movement	s 49	0	0	0	0	0	51	62	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	0 (	1	0	0	0	47	47	47
Maximum Total HGV and Car/small van Two-way Movements Per Day (car/small van	72	0	2	2	0	0	68	67	65	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0		0	0	0	57	55	57

#### National Grid Works

					Con	struction Vehi	icle movement	s (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				
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 deliverieries	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