Royal HaskoningDHV
Enhancing Society Together

VATTENFALL

Norfolk Boreas Offshore Wind Farm

Appendix 24.27

Scenario 2 – Destination A (onshore substations) Employee Assignment

Environmental Statement

Volume 3

Applicant: Norfolk Boreas Limited
Document Reference: 6.3.24.27
RHDHV Reference: PB5640-006-2427
Pursuant to APFP Regulation: 5(2)(a)

Date: June 2019
Revision: Version 1
Author: Royal HaskoningDHV

Photo: Ormonde Offshore Wind Farm

This page is intentionally blank.

Table 1: Onshore Project Substation (Destination Link 1b)

Key

(grey)	No employees utilising origin link to enter the study area.
(orange)	Destination Link
(yellow)	Links with employee movements

Origin data set A

Notes		Origin	Residents		In-migrants		Combined
			Percentage split	Total worker vehicles (one-way)	Percentage split	Total worker vehicles (one-way)	Total worker vehicles (one-way)
Total employees	50	1	0.36	5.37	0.17	5.85	11.2
Car-share ratio	1	2	0.08	1.18	0.11	4.02	5.2
Total vehicles	50.0	3	0.06	0.92	0.26	9.24	10.2
Percentage resident workers	0.3	5	0.04	0.54	0.06	1.98	2.5
Percentage in-migrant workers	0.7	6	0.02	0.23	0.00	0.00	0.2
Total resident worker vehicles	15	7	0.27	4.01	0.12	4.16	8.2
Total in-migrant worker vehicles	35	8	0.06	0.86	0.06	1.96	2.8
		9	0.00	0.00	0.00	0.00	0.0
		10	0.00	0.00	0.00	0.00	0.0
		11	0.03	0.47	0.08	2.89	3.4
		12	0.00	0.03	0.04	1.31	1.3
		13a	0.02	0.23	0.02	0.63	0.9
		14	0.00	0.04	0.00	0.00	0.0
		15	0.00	0.00	0.00	0.00	0.0
		18	0.00	0.06	0.00	0.12	0.2
		19	0.00	0.00	0.00	0.00	0.0
		24	0.00	0.00	0.00	0.00	0.0
		26	0.02	0.37	0.00	0.00	0.4
		27	0.02	0.23	0.00	0.00	0.2
		31	0.00	0.00	0.00	0.00	0.0
		32	0.00	0.00	0.00	0.00	0.0
		33	0.00	0.00	0.00	0.00	0.0
		34	0.00	0.00	0.00	0.00	0.0
		36	0.01	0.12	0.00	0.00	0.1
		38	0.00	0.00	0.06	2.22	2.2
		39	0.00	0.00	0.02	0.63	0.6
		40b	0.00	0.07	0.00	0.00	0.1
		43	0.00	0.00	0.00	0.00	0.0
		44	0.00	0.00	0.00	0.00	0.0
		47b	0.01	0.09	0.00	0.00	0.1
		50	0.00	0.00	0.00	0.00	0.0
		51	0.00	0.00	0.00	0.00	0.0
		56	0.00	0.00	0.00	0.00	0.0
		62	0.01	0.19	0.00	0.00	0.2
		63	0.00	0.00	0.00	0.00	0.0
		64	0.00	0.00	0.00	0.00	0.0

Origin	1a	1b	2	3	4	5	6	7	8	9	10	11	12	13a	13b	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35a	35b	36	37	38	39	40a	40b	41	42	43	44a	44b	45	46	47a	47b	47c
1	11.2	11.2																																																				
2		5.2	5.2																																																			
3		10.2	10.2	10.2																																																		
5		2.5	2.5	2.5	2.5	2.5																																																
6		0.2	0.2	0.2	0.2	0.2	0.2																																															
7		8.2						8.2																																														
8		2.8	2.8	2.8					2.8																																													
9																																																						
10																																																						
11	3.4	3.4										3.4																																										
12	1.3	1.3										1.3	1.3																																									
13a	0.9	0.9										0.9	0.9	0.9																																								
14	0.0	0.0										0.0	0.0	0.0	0.0	0.0																																						
15																																																						
18	0.2	0.2										0.2	0.2	0.2						0.2																																		
19																																																						
24																																																						
26		0.4	0.4																									0.4																										
27		0.2	0.2																									0.2	0.2																									
31																																																						
32																																																						
33																																																						
34																																																						
36		0.1	0.1																									0.1	0.1	0.1									0.1		0.1													
38		2.2	2.2																									2.2	2.2	2.2											2.2													
39		0.6	0.6																									0.6	0.6	0.6											0.6	0.6												
40b	0.1	0.1										0.1	0.1	0.1	0.1	0.1																											0.1		0.1									
43	0.0	0.0										0.0	0.0	0.0	0.0	0.0																											0.0		0.0		0.0							
44																																																						
47b	0.1	0.1										0.1	0.1	0.1	0.1	0.1																													0.1			0.1			0.1	0.1	0.1	
50																																																						
51																																																						
56																																																						
62																																																						
63																																																						
64																																																						
Total worker vehicles (one-way)	17.1	49.8	24.5	15.7	2.8	2.8	0.2	8.2	2.8	0.0	0.0	5.9	2.6	1.2	0.2	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.0	0.6	0.1	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0
Total worker vehicles (two-way)	34.3	99.6	49.0	31.5	5.5	5.5	0.5	16.3	5.6	0.0	0.0	11.8	5.1	2.5	0.4	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	6.4	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	5.9	1.3	0.1	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.2	0.2	0.2	0.0

Origin	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
1																																
2																																
3																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																
13a																																
14																																
15																																
18																																
19																																
24																																
26																																
27																																
31																																
32																																
33																																
34																																
36																																
38																																
39																																
40b																																
43																																
44																																
47b														0.1																		
50																																
51																																
56																																
62																																
63																																
64																																
Total worker vehicles (one-way)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total worker vehicles (two-way)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 2: National Grid Substation Extension Site (Destination Link 1a/1b)

Key

(grey)	No employees utilising origin link to enter the study area.
(orange)	Destination Link
(yellow)	Links with employee movements

Origin data set A

Notes		Origin	Residents		In-migrants		Combined
			Percentage split	Total worker vehicles (one-way)	Percentage split	Total worker vehicles (one-way)	Total worker vehicles (one-way)
Total employees	50	1	0.36	5.37	0.17	5.85	11.2
Car-share ratio	1	2	0.08	1.18	0.11	4.02	5.2
Total vehicles	50.0	3	0.06	0.92	0.26	9.24	10.2
Percentage resident workers	0.3	5	0.04	0.54	0.06	1.98	2.5
Percentage in-migrant workers	0.7	6	0.02	0.23	0.00	0.00	0.2
Total resident worker vehicles	15	7	0.27	4.01	0.12	4.16	8.2
Total in-migrant worker vehicles	35	8	0.06	0.86	0.06	1.96	2.8
		9	0.00	0.00	0.00	0.00	0.0
		10	0.00	0.00	0.00	0.00	0.0
		11	0.03	0.47	0.08	2.89	3.4
		12	0.00	0.03	0.04	1.31	1.3
		13a	0.02	0.23	0.02	0.63	0.9
		14	0.00	0.04	0.00	0.00	0.0
		15	0.00	0.00	0.00	0.00	0.0
		18	0.00	0.06	0.00	0.12	0.2
		19	0.00	0.00	0.00	0.00	0.0
		24	0.00	0.00	0.00	0.00	0.0
		26	0.02	0.37	0.00	0.00	0.4
		27	0.02	0.23	0.00	0.00	0.2
		31	0.00	0.00	0.00	0.00	0.0
		32	0.00	0.00	0.00	0.00	0.0
		33	0.00	0.00	0.00	0.00	0.0
		34	0.00	0.00	0.00	0.00	0.0
		36	0.01	0.12	0.00	0.00	0.1
		38	0.00	0.00	0.06	2.22	2.2
		39	0.00	0.00	0.02	0.63	0.6
		40b	0.00	0.07	0.00	0.00	0.1
		43	0.00	0.00	0.00	0.00	0.0
		44	0.00	0.00	0.00	0.00	0.0
		47b	0.01	0.09	0.00	0.00	0.1
		50	0.00	0.00	0.00	0.00	0.0
		51	0.00	0.00	0.00	0.00	0.0
		56	0.00	0.00	0.00	0.00	0.0
		62	0.01	0.19	0.00	0.00	0.2
		63	0.00	0.00	0.00	0.00	0.0
		64	0.00	0.00	0.00	0.00	0.0

Origin	1a	1b	2	3	4	5	6	7	8	9	10	11	12	13a	13b	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35a	35b	36	37	38	39	40a	40b	41	42	43	44a	44b	45	46	47a	47b	47c
1	11.2																																																					
2		5.2	5.2																																																			
3		10.2	10.2	10.2																																																		
5		2.5	2.5	2.5	2.5	2.5																																																
6		0.2	0.2	0.2	0.2	0.2	0.2																																															
7		8.2						8.2																																														
8		2.8	2.8	2.8					2.8																																													
9																																																						
10																																																						
11	3.4											3.4																																										
12	1.3											1.3	1.3																																									
13a	0.9											0.9	0.9	0.9																																								
14	0.0											0.0	0.0	0.0	0.0	0.0																																						
15																																																						
18	0.2											0.2	0.2	0.2						0.2																																		
19																																																						
24																																																						
26		0.4	0.4																									0.4																										
27		0.2	0.2																									0.2	0.2																									
31																																																						
32																																																						
33																																																						
34																																																						
36		0.1	0.1																									0.1	0.1	0.1									0.1		0.1													
38		2.2	2.2																									2.2	2.2	2.2											2.2													
39		0.6	0.6																									0.6	0.6	0.6											0.6	0.6												
40b	0.1											0.1	0.1	0.1	0.1	0.1																											0.1		0.1									
43	0.0											0.0	0.0	0.0	0.0	0.0																											0.0		0.0		0.0							
44																																																						
47b	0.1											0.1	0.1	0.1	0.1	0.1																													0.1			0.1			0.1	0.1	0.1	
50																																																						
51																																																						
56																																																						
62																																																						
63																																																						
64																																																						
Total worker vehicles (one-way)	17.1	32.7	24.5	15.7	2.8	2.8	0.2	8.2	2.8	0.0	0.0	5.9	2.6	1.2	0.2	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.0	0.6	0.1	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0
Total worker vehicles (two-way)	34.3	65.4	49.0	31.5	5.5	5.5	0.5	16.3	5.6	0.0	0.0	11.8	5.1	2.5	0.4	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	6.4	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	5.9	1.3	0.1	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.2	0.2	0.2	0.0

Origin	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
1																																
2																																
3																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																
13a																																
14																																
15																																
18																																
19																																
24																																
26																																
27																																
31																																
32																																
33																																
34																																
36																																
38																																
39																																
40b																																
43																																
44																																
47b														0.1																		
50																																
51																																
56																																
62																																
63																																
64																																
Total worker vehicles (one-way)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total worker vehicles (two-way)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0