

DOGGER BANK D WIND FARM

Preliminary Environmental Information Report

Volume 2

Appendix 20.3 Construction Road Vehicle Exhaust
Emissions Assessment – Traffic Data

Document Reference No: 2.20.3

Date: June 2025

Revision: V1



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APPENDIX 20.3 CONSTRUCTION ROAD VEHICLE EXHAUST EMISSIONS ASSESSMENT –
TRAFFIC DATA

Document Title:	Volume 2, Appendix 20.3 Construction Road Vehicle Exhaust Emissions Assessment – Traffic Data
Document BIM No.	PC6250-RHD-XX-ON-RP-EV-0154
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Revision No.	Date	Status / Reason for Issue	Author	Checked By	Approved By
V1	24/01/2025	Final	DH / EW	AT	RH

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Glossary

Term	Definition
Birkhill Wood Substation	The onshore grid connection point for DBD identified through the Holistic Network Design process. Birkhill Wood Substation which is being developed by National Grid Electricity Transmission and does not form part of the Project.
Energy Storage and Balancing Infrastructure (ESBI)	A range of technologies such as battery banks to be co-located with the Onshore Converter Station, which provide valuable services to the electrical grid such as storing energy to meet periods of peak demand and improving overall reliability.
Landfall	The area on the coastline, south-east of Skipsea, at which the offshore export cables are brought ashore, connecting to the onshore export cables at the transition joint bay above Mean High Water Springs.
Onshore Converter Station (OCS)	A compound containing electrical equipment required to stabilise and convert electricity generated by the wind turbines and transmitted by the export cables into a more suitable voltage for grid connection into Birkhill Wood Substation.
Onshore Converter Station (OCS) Zone	The area within which the Onshore Converter Station and Energy Storage and Balancing Infrastructure will be located in vicinity of Birkhill Wood Substation.
Onshore Development Area	The area in which all onshore infrastructure associated with the Project will be located, including any temporary works area required during construction and permanent land required for mitigation and enhancement areas, which extends landward of Mean Low Water Springs. There is an overlap with the Offshore Development Area in the intertidal zone.
Onshore Export Cable Corridor (ECC)	The area within which the onshore export cables will be located, extending from the landfall to the Onshore Converter Station zone and onwards to Birkhill Wood Substation.
The Applicant	SSE Renewables and Equinor acting through 'Doggerbank Offshore Wind Farm Project 4 Projco Limited'.
The Project	Dogger Bank D (DBD) Offshore Wind Farm Project, also referred to as DBD in this PEIR.

20.3 Construction Road Vehicle Exhaust Emissions Assessment – Traffic Data

1. This appendix to the Dogger Bank D (DBD) Offshore Wind Farm (hereafter ‘the Project’) Preliminary Environmental Information Report (PEIR) supports **Volume 1, Chapter 20 Air Quality and Dust**. This appendix forms part of the PEIR for the onshore elements of the Project.
2. The purpose of this appendix is to provide the supporting traffic data used in the assessment of construction road vehicle exhaust emissions assessment for the Project as provided in **Section 20.7.1.3 of Volume 1, Chapter 20 Air Quality and Dust**. The traffic data used were provided by the traffic EIA specialists, and the derivation of the traffic flows is detailed in **Volume 1, Chapter 26 Traffic and Transport**. The traffic data used for the 2023 base year, 2029 future baseline with background traffic growth and, 2029 Project in combination with background traffic growth are provided in **Table 20.3-1**.
3. Traffic data has been factored to account for traffic growth between 2023 and 2029, by applying background growth factors that account for regional traffic growth from the Trip End Model Presentation Program (TEMPro), which takes into account traffic growth from committed developments (e.g. residential developments, employment, etc.).

Table 20.3-1 Traffic Data for the Construction Road Vehicle Exhaust Emission Assessment

Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
1	A165 north of Allison Lane	8,913	5.6%	9,272	5.6%	9,297	5.5%
2	A165 between Allison Lane and Skipsea Road	8,913	5.6%	9,272	5.6%	9,396	6.5%
3	A165 Between Skipsea Road and Grange Road	8,814	8.8%	9,384	8.8%	10,207	10.9%
4	A165 Between Grange Road and Brandesburton Roundabout	9,377	5.6%	9,754	5.6%	10,837	7.6%
5	A165 between A1035 and New Road	11,136	8.2%	11,857	8.2%	12,940	9.7%
6	A1035 between Leven Roundabout and White Cross Roundabout	18,351	1.5%	19,089	1.5%	20,177	2.8%
7	A1035 between White Cross Roundabout and Hall Farm	20,892	3.5%	21,732	3.5%	22,871	4.7%
8	A1035 between Hall Farm and Swinemoor Lane Roundabout	20,892	3.5%	21,732	3.5%	22,977	4.7%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
9	A1035 between Swinemoor Roundabout and Driffled Roundabout	14,699	5.2%	15,290	5.2%	16,265	6.9%
10	A1035 between Driffled Roundabout and Dog Kennel Lane Roundabout	12,195	6.7%	12,685	6.7%	13,869	8.5%
11	A1035 between Dog Kennel Lane Roundabout and Killinggravesworld Roundabout	12,242	7.5%	12,734	7.5%	14,017	9.2%
12	A1035 between Killinggravesworld Roundabout and Jocks Lodge Roundabout	20,747	6.0%	21,581	6.0%	22,908	7.1%
13	A164 Jocks Lodge between A1079 and A164 northern diverge point	33,842	3.9%	35,202	3.9%	37,075	4.6%
14	A164 Northbound only from southern diverge point	17,259	3.9%	17,953	3.9%	18,919	4.6%
15	A164 southbound only from northern diverge point	16,583	3.9%	17,249	3.9%	18,215	4.6%
16	A164 from Southern diverge point to Dunflat Road	33,842	3.9%	35,202	3.9%	37,075	4.6%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
17	A164 between Dunflat Road and the B1233	33,842	3.9%	35,202	3.9%	37,075	4.6%
18	A164 between B1233 and Castle Road	33,842	3.9%	35,202	3.9%	36,682	4.7%
19	A164 between Castle Road and the B1232	33,842	3.9%	35,202	3.9%	36,475	4.7%
20	A164 between the B1232 and B1231	19,380	6.5%	20,159	6.5%	21,245	7.8%
21	A164 between the B1231 and Boothferry Road	19,380	6.5%	20,159	6.5%	21,121	7.8%
22	A15 - Boothferry Road	31,553	9.0%	32,821	9.0%	33,375	9.8%
23	A63 - Hull West	46,703	13.4%	50,094	13.4%	50,647	13.9%
24	A63 between Boothferry Road and the A1166	63,587	9.9%	68,203	9.9%	68,537	10.3%
25	A63 between the A1166 and Daltry Street	57,277	9.5%	61,436	9.5%	61,770	10.0%
26	A63 between Daltry Street and the A1165	48,013	10.9%	51,498	10.9%	51,868	11.4%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
27	A63 between the A1165 and Southcoates Roundabout	27,382	10.4%	29,370	10.4%	29,704	11.4%
28	A1033 (between Southcoates Roundabout to Northern Gateway	34,372	11.8%	36,867	11.8%	37,225	12.6%
29	A1033 (between Northern Gateway and Marfleet Roundabout)	34,372	11.8%	36,867	11.8%	37,225	12.6%
30	A1033 (between Marfleet Roundabout and B1362)	31,800	10.0%	33,282	10.0%	33,655	10.9%
31	A1033 (between Mount Pleasant North Roundabout and A165 Holderness Road)	17,959	7.0%	18,796	7.0%	19,189	8.6%
32	A165 Holderness Road (between A1033 and Maybury Road)	12,473	6.2%	13,054	6.2%	13,106	6.2%
33	A165 Holderness Road (between Maybury Road and Main Road)	18,462	5.7%	19,322	5.7%	19,704	7.3%
34	A165 (between Main Road and Main Street)	23,671	2.6%	24,774	2.6%	25,160	3.8%
35	A165 (between Main Street and Skirlaugh)	23,671	2.6%	24,774	2.6%	25,156	3.8%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
36	A165 - Skirlaugh	86,42	6.4%	8,989	6.4%	9,374	9.6%
37	A165 (between Skirlaugh and the A1035)	86,42	6.4%	8,989	6.4%	9,387	9.6%
38	A1033 (between Holderness Road and Sutton Road)	22,752	8.4%	23,812	8.4%	24,251	9.7%
39	A1033 (between Howell Road and Stockholme Road)	17,610	4.2%	18,431	4.2%	18,855	5.8%
40	A1033 (between Stockholm Road and Roebank Roundabout)	17,610	4.2%	18,431	4.2%	18,855	5.8%
41	A1033 (between Roebank Roundabout and Dunswell Roundabout)	17,959	7.0%	18,796	7.0%	19,422	8.5%
42	A1079 (between Dunswell Roundabout and Jocks Lodge Roundabout)	19,996	5.5%	20,800	5.5%	21,672	6.9%
43	A1174 (between Dunswell Roundabout and the A164)	13,967	3.6%	14,528	3.6%	14,788	3.6%
44	A164 (between Ward Way and the A1174)	11,929	4.4%	12,409	4.4%	12,479	4.4%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
45	A164 (between the A1174 and Jocks Lodge)	11,929	4.4%	12,409	4.4%	13,156	6.0%
46	Jocks Lodge (between Minster Way and the A1079)	21,991	4.3%	22,875	4.3%	23,623	5.1%
47	A1174 (between Dunswell Roundabout and the A164)	16,119	4.5%	16,767	4.5%	17,097	4.4%
48	Neptune Street	1,074	14.2%	1,121	14.2%	1,455	33.9%
49	Jackson Street/ Daltry Street	11,905	2.3%	12,421	2.3%	12,755	4.9%
50	English Street/ Kingston Street/Commercial Road	8,911	0.9%	9,298	0.9%	9,632	4.3%
51	Maybury Road/Marfleet Lane	11,419	2.6%	11,951	2.6%	12,331	5.1%
52	Coppleflat Lane between A164 to OCS	2,840	2.8%	2,957	2.8%	3,949	9.5%
53	Bentley Lane between OCS and Broadgate	2,840	2.8%	2,957	2.8%	3,248	11.5%
54	B1248 (between the A1035 and Rootas Lane)	12,012	4.7%	12,495	4.7%	12,776	5.3%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
55	B1248 (between Rootas Lane and Main Street)	8,319	6.6%	8,653	6.6%	8,746	6.5%
56	Rootas Lane (east)	93	3.3%	97	3.3%	238	20.3%
57	Walkington Heads	5,031	4.5%	5,238	4.5%	5,376	6.1%
58	Leconfield Road / Miles Lane	3,354	3.2%	3,493	3.2%	3,599	4.4%
59	West Street - Leven	196	3.0%	205	3.0%	276	18.2%
60	Killingwoldgraves Lane	8,593	4.0%	8,947	4.0%	9,085	5.0%
61	Coppleflat Lane (between Walkington Heads and Broadgate)	2,840	2.8%	2,957	2.8%	3,026	2.8%
62	York Road	5,679	3.1%	5,913	3.1%	5,989	3.1%
63	A164 (between Driffled Road Roundabout and Old Road)	9,314	6.2%	9,689	6.2%	10,102	7.1%
64	Old Road (between A164 and Miles Lane)	2,282	0.7%	2,376	0.7%	2,386	0.7%
65	A164 (between Old Road and onshore Export Cable Corridor (ECC))	8,624	5.2%	8,970	5.2%	9,394	6.1%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
66	A164 (between onshore EEC and Station Road)	8,624	5.2%	8,970	5.2%	9,128	5.8%
67	Station Road	205	9.2%	214	9.2%	356	24.2%
68	Aike Lane	205	9.2%	214	9.2%	356	24.2%
69	Manor Farm Cottages	100	10.0%	104	10.0%	178	35.1%
70	North Turnpike	30	10.0%	31	10.0%	31	10.0%
71	B1249 (Bridlington Balk)	1,582	4.1%	1,647	4.1%	1,864	11.4%
72	North Froddingham Road	1,621	3.6%	1,688	3.6%	1,906	10.8%
73	Dunnington Lane	156	37.0%	162	37.0%	307	51.3%
74	A1033 (between Mount Pleasant North Roundabout and Southcoates Roundabout)	10,253	9.3%	10,731	9.3%	10,921	10.7%
75	A63 (Off ramp to Mount Pleasant North Roundabout)	3,548	13.4%	3,713	13.4%	3,916	16.9%
76	A1079 (between Killinggravesworld Roundabout and west Bishop Burton)	11,535	7.6%	11,998	7.6%	12,313	7.8%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
77	A1079 (between Bishop Burton and Highgate)	9,748	8.6%	10,140	8.6%	10,325	8.4%
78	Highgate	1,344	4.3%	1,399	4.3%	1,399	4.3%
79	Grange Road	754	6.7%	785	6.7%	1,242	19.3%
80	A15 - Humber Bridge	31,232	8.0%	32,687	8.0%	33,095	7.9%
81	West Street - West of Leven	196	3.0%	205	3.0%	267	18.8%
82	Beverley Road (from A1035 to West Street)	4,295	3.6%	4,472	3.6%	4,543	4.5%
83	North Street (from West Street to onshore ECC)	2,211	5.2%	2,302	5.2%	2,346	7.0%
84	New Road (from A165 to onshore ECC)	1,665	6.5%	1,734	6.5%	1,778	8.8%
85	Dunflat Road	219	10.4%	228	10.4%	345	24.7%
86	B1242 (between Cliff Road and the Onshore ECC)	3,869	3.9%	4,025	3.9%	4,190	6.1%
87	Beeford Road (between the A165 to Bewholme Lane)	1,557	4.1%	1,620	4.1%	1,784	9.3%

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Link ID	Road Name	2023 Base Year		2029 Base Year		2029 with the Project In-Combination Background Traffic Growth	
		AADT	%HGV	AADT	%HGV	AADT	%HGV
88	B1242 (btween the A165 to Skipsea	33,82	3.9%	3,517	3.9%	3,617	6.5%
98	B1230 (Broadgate, East)	69,32	2.8%	7,211	2.8%	7,215	2.8%
99	Heigholme Lane	101	6.2%	105	6.2%	158	32.0%
100	Scorborough Lane	50	5.2%	52	5.2%	267	23.1%

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Acronyms

Term	Definition
AADT	Annual Average Daily Traffic
DBD	Dogger Bank D Offshore Wind Farm Project
HGV	Heavy Goods Vehicle
PEIR	Preliminary Environmental Information Report
TEMPro	Trip End Model Presentation Program