



Appendix 19.1

GHG TECHNICAL METHODOLOGY

19 GHG Technical Methodology

19.1 Introduction

- 19.1.1 This appendix describes the methodology and result of the lifecycle modelling of transport emissions associated with the Proposed Development. Baseline emissions without the Development are assumed to be zero.

19.2 Transport

- 19.2.1 Data on the number of passenger trips and distances travelled by a range of modes of transport have been provided by the project transport consultant.
- 19.2.2 GHG factors for transport modes have been obtained from DESNZ¹ for 2023 and adjusted to future years using fuel efficiency and electrical energy data from the DfT's WebTAG datasets².
- 19.2.3 The GHG factors used to calculate transport emissions are presented in Table 19.3 and the transport travel distances in Table 19.4.

¹ DESNZ (2023) Greenhouse gas reporting: conversion factors 2023

² DfT (2021) Guidance: TAG data book: <https://www.gov.uk/government/publications/tag-data-book>.

Table 19.3: GHG emissions factors used to calculate transport emissions

Year	Emission Factor (kg CO ₂ e/km)							
	London Underground	Tarin	Bus	Taxi	Motorcycle	Car Driver	Car Passenger ^a	Bicycle and Foot
2027	0.020	0.025	0.071	0.24	0.09	0.13	0.07	0.00
2028	0.018	0.022	0.069	0.23	0.09	0.13	0.06	0.00
2029	0.016	0.020	0.067	0.22	0.08	0.12	0.06	0.00
2030	0.013	0.017	0.065	0.20	0.08	0.11	0.06	0.00
2031	0.011	0.014	0.062	0.19	0.07	0.11	0.05	0.00
2032	0.009	0.011	0.058	0.18	0.07	0.10	0.05	0.00
2033	0.007	0.009	0.055	0.17	0.06	0.09	0.05	0.00
2034	0.006	0.007	0.051	0.16	0.06	0.09	0.04	0.00
2035	0.005	0.006	0.048	0.15	0.06	0.08	0.04	0.00
2036	0.004	0.005	0.044	0.14	0.05	0.08	0.04	0.00
2037	0.003	0.004	0.041	0.13	0.05	0.07	0.04	0.00
2038	0.002	0.003	0.037	0.13	0.05	0.07	0.04	0.00
2039	0.002	0.003	0.034	0.12	0.05	0.07	0.03	0.00
2040	0.002	0.002	0.032	0.12	0.04	0.07	0.03	0.00
2041	0.001	0.002	0.029	0.11	0.04	0.06	0.03	0.00
2042	0.001	0.002	0.027	0.11	0.04	0.06	0.03	0.00
2043	0.001	0.002	0.025	0.11	0.04	0.06	0.03	0.00
2044	0.001	0.001	0.023	0.11	0.04	0.06	0.03	0.00
2045	0.001	0.001	0.021	0.11	0.04	0.06	0.03	0.00
2046	0.001	0.001	0.017	0.10	0.04	0.06	0.03	0.00
2047	0.001	0.001	0.013	0.10	0.04	0.06	0.03	0.00
2048	0.001	0.001	0.011	0.10	0.04	0.06	0.03	0.00
2049	0.001	0.001	0.009	0.10	0.04	0.06	0.03	0.00
2050 ^b	0.001	0.001	0.007	0.10	0.04	0.06	0.03	0.00

^a Car passenger emissions assume 2 persons sharing a car (i.e. car driver factor divided by 2).

^b Beyond 2050, all travel modes assumed to be net zero in line with Government targets.

Table 19.4: Annual distance travelled by mode with the Development

Mode	Total annual distance (km)
London Underground	196,781
Rail	176,315
Bus	124,304
Taxi	4,436
Motorcycle	169
Driving a car	735,891
Passenger in a car	162,904
Bicycle	3,637
On foot	51,011
Total	1,455,448

19.2.4 The transport GHG emissions are presented in Table 19.5. These are calculated by combining the transport km travelled data in Table 19.4 with the GHG factors in Table 19.3.

Table 7.5: Development GHG Emissions for Transport

Year	Tonnes CO ₂ e								
	London Underground	Tarin	Bus	Taxi	Motorcycle	Car Driver	Car Passenger	Bicycle and Foot	Total
2027	4	4	9	1	0	99	11	0	128
2028	3	4	9	1	0	94	10	0	122
2029	3	4	8	1	0	89	10	0	115
2030	3	3	8	1	0	84	9	0	108
2031	2	2	8	1	0	78	9	0	100
2032	2	2	7	1	0	73	8	0	93
2033	1	2	7	1	0	69	8	0	87
2034	1	1	6	1	0	65	7	0	81
2035	1	1	6	1	0	61	7	0	76
2036	1	1	6	1	0	58	6	0	72
2037	1	1	5	1	0	55	6	0	68
2038	0	1	5	1	0	52	6	0	64
2039	0	0	4	1	0	50	6	0	61
2040	0	0	4	1	0	48	5	0	59
2041	0	0	4	1	0	47	5	0	57
2042	0	0	3	0	0	46	5	0	55
2043	0	0	3	0	0	45	5	0	54
2044	0	0	3	0	0	44	5	0	53
2045	0	0	3	0	0	43	5	0	51
2046	0	0	2	0	0	42	5	0	50
2047	0	0	2	0	0	42	5	0	49
2048	0	0	1	0	0	41	5	0	48
2049	0	0	1	0	0	41	5	0	47
2050 ^a	0	0	1	0	0	41	5	0	47
Total	25	28	114	15	0	1407	156	0	1745

^a Beyond 2050, all travel modes assumed to be net zero in line with Government targets.