

### Contextualisation of GHG Emissions with Local and National Carbon Budgets

The scale of the GHG emissions associated with the Proposed Development have been contextualised by considering national and local decarbonisation targets. The primary basis for contextualisation is the UK carbon budgets and the London Borough of Hillingdon carbon budgets.

The 2008 Climate Change Act requires that five-yearly carbon budgets are set and not exceeded to ensure that progress is made towards the long term target of net zero emissions by 2050. The first three carbon budgets were set in 2009, with the fourth, fifth and sixth following in 2011, 2016 and 2021 respectively. The seventh carbon budget is to be set in 2025.

The carbon budgets for Hillingdon Borough Council have been extracted from the Tyndall Carbon Budget Tool developed by the Tyndall Centre for Climate Change Research. According to the Tyndall Centre's assessment, the total recommended carbon budget for the Hillingdon Borough Council area for the period of 2023-2100 is 6 MtCO<sub>2</sub>e. To translate this into near to long term commitments, a CO<sub>2</sub> reduction pathway of 12.5% each year was applied.

The UK carbon budgets have been obtained from the Climate Change Committee (CCC) and are published figures from the UK Government. As the remaining UK carbon budgets from 2038-2100 are yet to be determined and published, the same annual emissions reduction rate (12.5%) was applied to provide projected carbon budgets for the UK over this period.

<https://www.theccc.org.uk/publication/the-seventh-carbon-budget/>

<https://carbonbudget.manchester.ac.uk/reports/E09000017/>

Carbon Budget Period	UK Carbon Budget (MtCO <sub>2</sub> e)	Londond Borough of Hillingdon Carbon Budget (MtCO <sub>2</sub> e)
2018	508.8	1.180
2019	508.8	1.180
2020	508.8	1.180
2021	508.8	1.180
2022	508.8	1.180
2023	390	0.620
2024	390	0.620
2025	390	0.620
2026	390	0.620
2027	390	0.620
2028	345	0.320
2029	345	0.320
2030	345	0.320
2031	345	0.320
2032	345	0.320
2033	193.0	0.160
2034	193.0	0.160
2035	193.0	0.160
2036	193.0	0.160
2037	193.0	0.160
2038	107.0	0.080
2039	107.0	0.080
2040	107.0	0.080
2041	107.0	0.080
2042	107.0	0.080

2043	93.6	0.040
2044	81.9	0.040
2045	71.7	0.040
2046	62.7	0.040
2047	54.9	0.040
2048	48.0	0.004
2049	42.0	0.004
2050	36.8	0.004
2051	32.2	0.004
2052	28.1	0.004
2053	24.6	0.004
2054	21.6	0.004
2055	18.9	0.004
2056	16.5	0.004
2057	14.4	0.004
2058	12.6	0.004
2059	11.1	0.004
2060	9.7	0.004
2061	8.5	0.004
2062	7.4	0.004
2063	6.5	0.004
2064	5.7	0.004
2065	5.0	0.004
2066	4.3	0.004
2067	3.8	0.004
2068	3.3	0.004
2069	2.9	0.004
2070	2.5	0.004
2071	2.2	0.004
2072	1.9	0.004
2073	1.7	0.004
2074	1.5	0.004
2075	1.3	0.004
2076	1.1	0.004
2077	1.0	0.004
2078	0.9	0.004
2079	0.8	0.004
2080	0.7	0.004
2081	0.6	0.004
2082	0.5	0.004
2083	0.4	0.004
2084	0.4	0.004
2085	0.3	0.004
2086	0.3	0.004
2087	0.3	0.004
2088	0.2	0.004
2089	0.2	0.004
2090	0.2	0.004

2091	0.2	0.004
2092	0.1	0.004
2093	0.1	0.004
2094	0.1	0.004
2095	0.1	0.004
2096	0.1	0.004
2097	0.1	0.004
2098	0.1	0.004
2099	0.1	0.004
2100	0.0	0.004