

Greenhouse Gas Emissions¹: Midlands Engine Analysis

Summary:

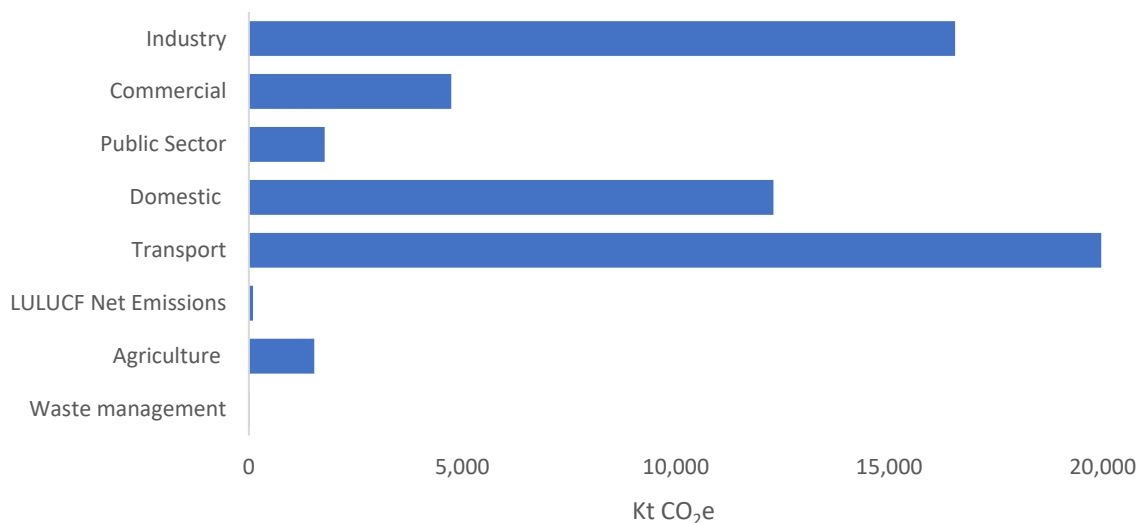
- In 2022, the Midlands Engine area produced a total of 56,956 Kt carbon dioxide (CO₂e) emissions. This has decreased by 3,735 Kt CO₂e (-6.2%) since 2021, compared to a decrease of 5.8% across the UK.
- For the Midlands Engine area in 2022, 35.1% (19,964 Kt CO₂e) of emissions came from the transport sector, below the UK proportion of 37.5%. This was followed by 29.0% (16,540 Kt CO₂e) of emissions from the industry sector, above the UK proportion of 19.8%.
- Emissions in the Midlands Engine area is equivalent to 5.4 tonnes CO₂e per capita, compared to 4.5 tonnes CO₂e per capita in the UK.
- Emissions are equivalent to 2.1 KtCO₂e per km² in the Midlands Engine area, compared to 1.2 KtCO₂e per km² in the UK.

Full Briefing:

Carbon Dioxide Emissions

- In 2022, the Midlands Engine area produced a total of 56,956 Kt carbon dioxide (CO₂e) emissions. This has decreased by 3,735 Kt CO₂e (-6.2%) since 2021, compared to a decrease of 5.8% across the UK.
- In 2022, emissions in the Midlands Engine area can be split by:
 - Industrial sector: 16,540.3 Kt CO₂e (29.0% of total, UK 19.8%)
 - Commercial sector: 4,741.3 Kt CO₂e (8.3% of total, UK 10.9%)
 - Public sector: 1,774.2 Kt CO₂e (3.1% of total, UK 3.8%)
 - Domestic sector: 12,287.8 Kt CO₂e (21.6% of total, UK 26.9%)
 - Transport sector: 19,963.6 Kt CO₂e (35.1% of total, UK 37.5%)
 - Agriculture sector: 1,533.0 Kt CO₂e (2.7% of total, UK 3.0%)
 - Waste management: 18.5 Kt CO₂e (0.0% of total, UK 0.1%)
 - Land Use, Land Use change and Forestry Sector (LULUCF): 96.8 Kt CO₂e (0.2% of total, UK -2.1% - negative contribution).

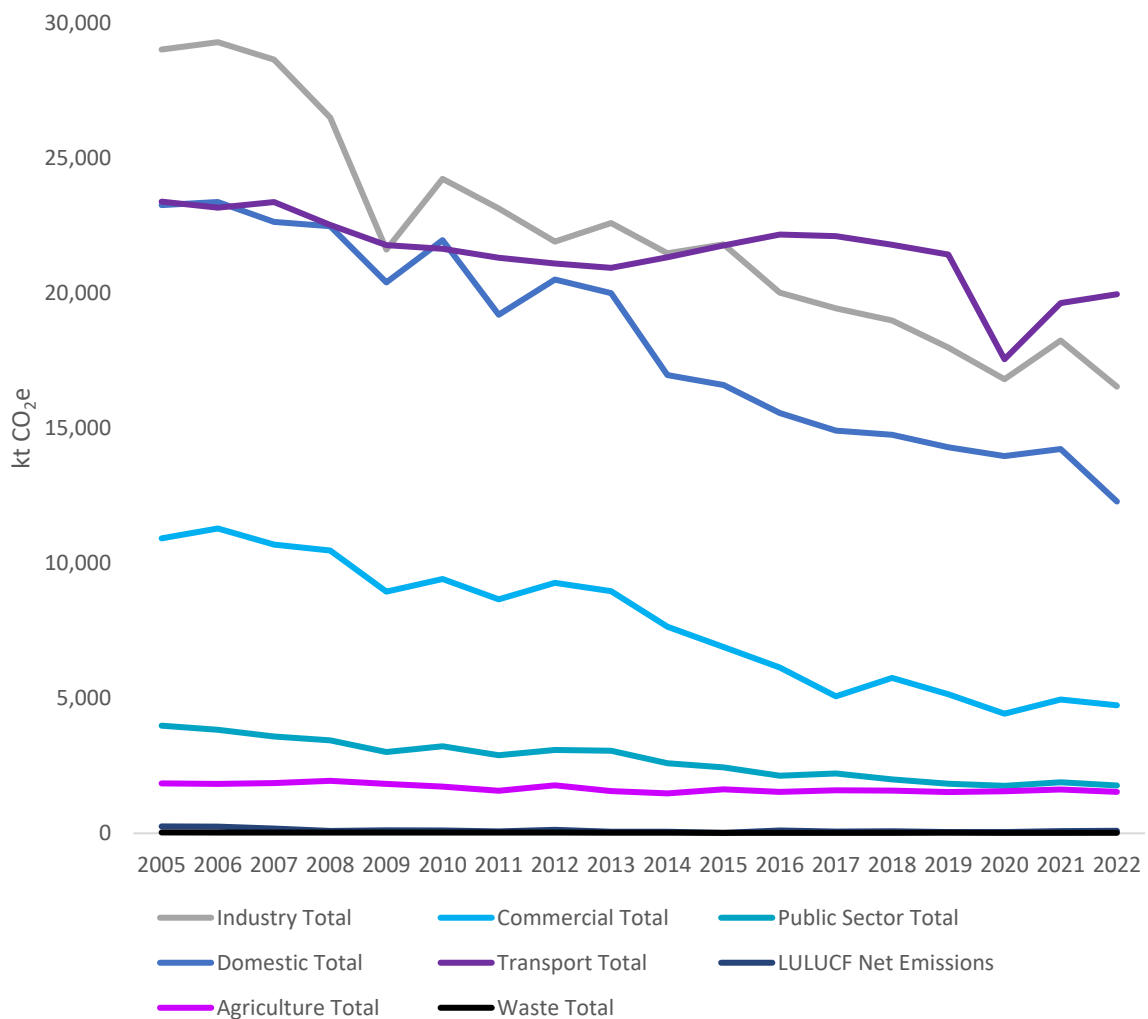
Sectoral Breakdown of CO₂e Emissions for the Midlands Engine area, 2022:



¹ Source: Department for Energy Security and Net Zero, UK local authority and regional greenhouse gas emissions statistics – released June 2024.

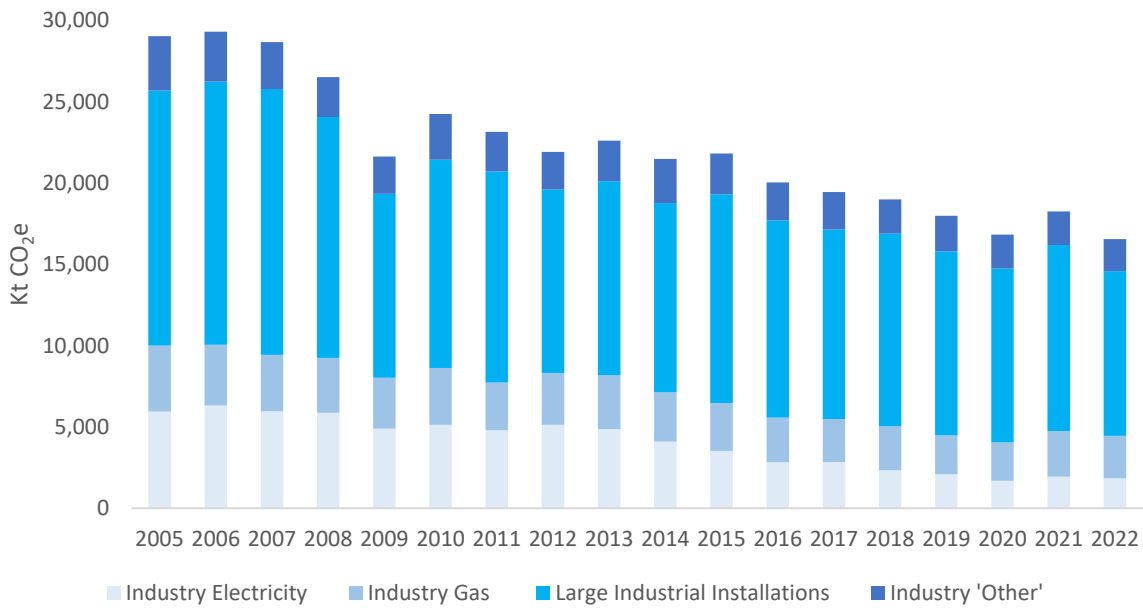
- Since 2005, total CO₂e emissions have decreased by 35,772 (-38.6%) across the Midlands Engine area, the UK decreased by 43.4%.
 - The industry sector reduced emissions by 43.0%, (UK -54.0%)
 - The commercial sector has decreased by 56.6%, (UK -57.5%)
 - The public sector has decreased by 55.5% (UK -56.6%)
 - There was a 47.2% reduction for domestic sources (UK -47.1%)
 - The transport emissions reduced by 14.7% during this period (UK -18.0%)
 - The LULUCF sector reduced by 62.2% (UK +55.1%)
 - Agricultural emissions reduced by 17.1% (UK -18.2%)
 - Waste management emissions reduced by 43.8% (UK -35.4%).

Trends in CO₂e emissions for the overall Midlands Engine area:



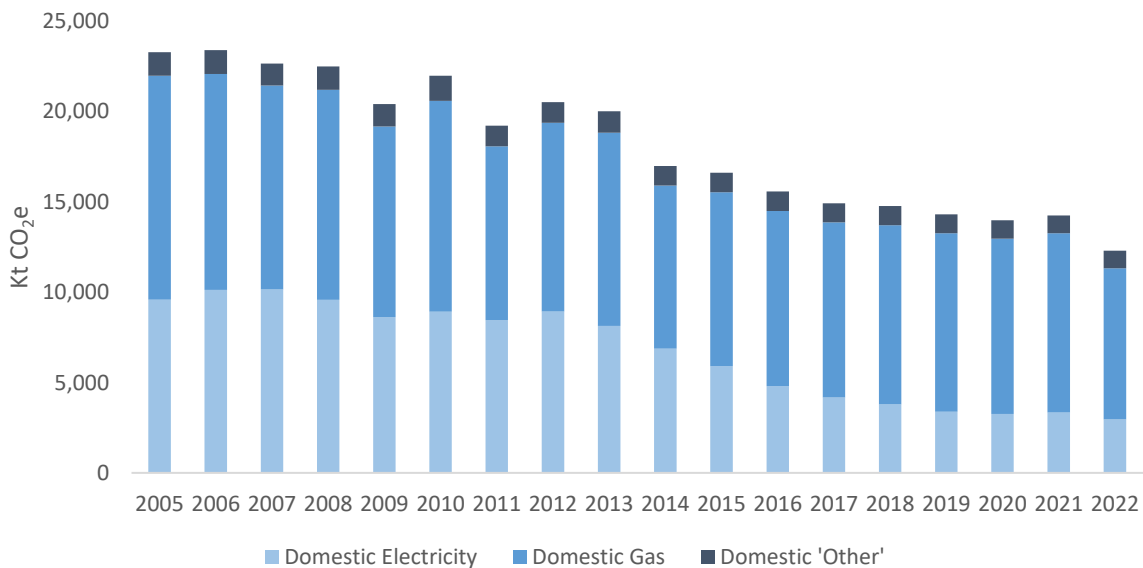
- In 2022, the Midlands Engine produced a total of 16,540 Kt CO₂e emissions in the industrial sector, with 10,125 Kt CO₂e (61.2%) from large industrial installations, 2,622 Kt CO₂e (15.9%) of industrial emissions from gas, 1,960 Kt CO₂e (11.9%) from other and 1,832 Kt CO₂e (11.1%) from electricity.
- The largest decrease in industry emissions since 2005 was in large industrial installations at -5,545 Kt CO₂e (-35.4%), whereas the largest percentage decrease since 2005 was in electricity by -69.2% (-4,119 Kt CO₂e).

Trends in industry subsector emissions:



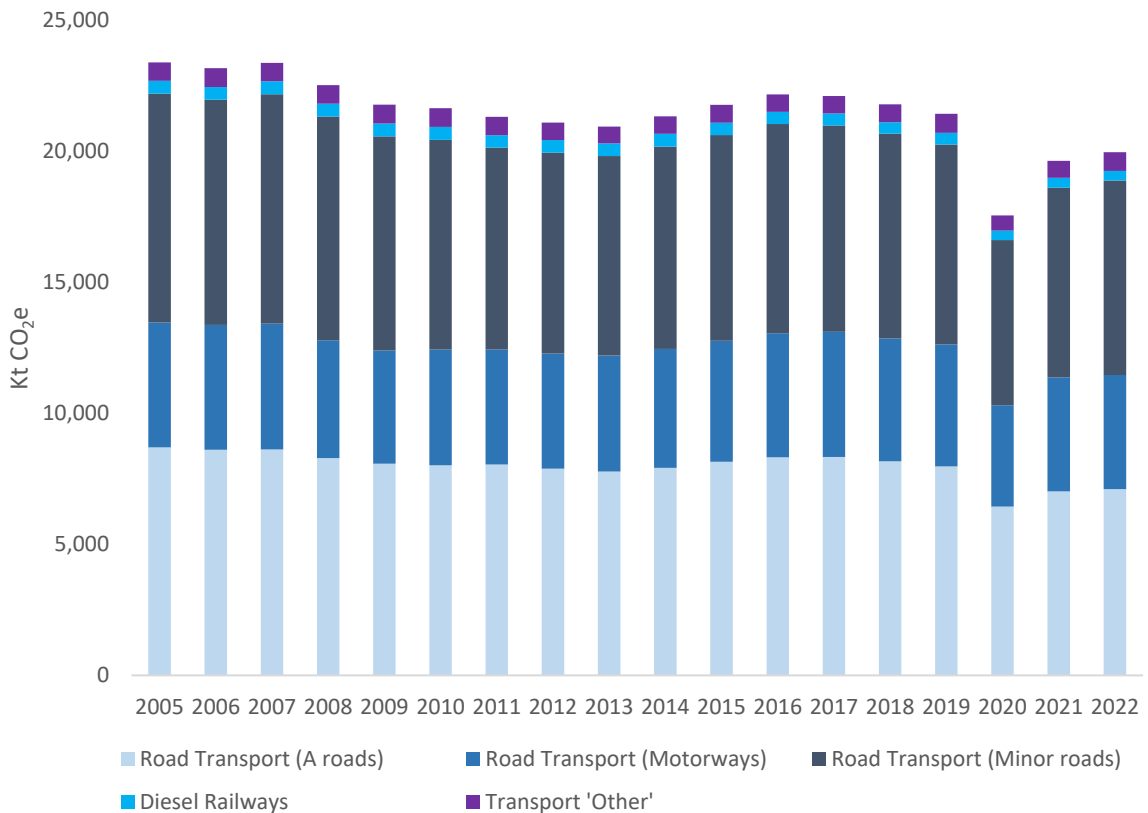
- In 2022, the Midlands Engine produced a total of 12,288Kt CO₂e emissions in the domestic sector, with 8,364 Kt CO₂e (68.1%) of domestic emissions from gas, 2,955 Kt CO₂e (24.1%) from electricity and 968 Kt CO₂e (7.9%) from other.
- The largest decrease in domestic emissions since 2005 was in electricity at -6,625 Kt CO₂e (-69.2%).

Trends in domestic subsector emissions:



- In 2022, the Midlands Engine area produced a total of 19,964 Kt CO₂e emissions in the transport sector, with 7,107 Kt CO₂e (35.6%) from Road Transport (A roads), 7,426 Kt CO₂e (37.2%) of transport emissions from Road Transport (Minor roads), 4,356 Kt CO₂e (21.8%) from Road Transport (Motorways), 714 Kt CO₂e (3.6%) from other, and 362 Kt CO₂e (1.8%) from diesel railways.
- The largest decrease in transport emissions since 2005 was seen in diesel railways at -126 Kt CO₂e (-25.8%). Other increased in this period by 13 Kt CO₂e (+1.8%).

Trends in transport subsector emissions:



Methane

- In 2022, the Midlands Engine produced a total of 7,881 kt CO₂e of methane emissions. This has decreased by 88 kt CO₂e (-1.1%) since last year, compared to a decrease of 1.2% across the UK. Since, 2005, methane emissions reduced by 1,810 kt CO₂e (-18.7%, UK -44.1%).

Nitrous Oxide

- In 2022, the Midlands Engine area produced a total of 2,760 kt CO₂e of nitrous oxide emissions. This has decreased by 146 kt CO₂e (-5.0%) since last year, compared to a decrease of 4.7% across the UK. Since, 2005, nitrous oxide emissions reduced by 300 kt CO₂e (-9.8%, UK -20.5%).