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Tonbridge and Malling Borough Council

Carbon Audit:

2024/2025

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1. Summary

Annually, Tonbridge and Malling Borough Council (TMBC) produce a carbon audit. This audit details the carbon dioxide equivalent emissions (CO₂e) from TMBC's owned estate and operations for the previous fiscal year. This allows for consistent monitoring of emissions over time, highlighting how TMBC is progressing towards meeting its 2030 carbon neutral aspiration.

Carbon audits are developed by TMBC in accordance with the Greenhouse Gas Protocol 'Corporate Accounting and Reporting Standard' and the 'Environmental Reporting Guidelines' developed by the Department of Business, Energy, and Industrial Strategy (BEIS). All emissions were calculated using official greenhouse gas conversion factors published by the Department for Energy Security and Net Zero, and Defra¹.

In 2024/25 TMBC emitted **3,479.2** tonnes of carbon dioxide equivalent² (tCO₂e).

2. Scope emissions

The following section provides an overview of TMBC's emissions scopes:

Scope 1: Gas consumption, TMBC vehicle fleet.

Scope 2: Electricity consumption.

Scope 3: Leisure facilities, Refuse Collection Vehicles (contracted), TMBC business travel, TMBC commuting, Grounds maintenance (contracted), transmission and distribution losses, water supply, water treatment.

Renewable generation: Renewable Energy Guarantee of Origin (REGO) electricity tariff.

3. Emissions overview

<i>TMBC Emissions (tCO₂e)</i>						
Emissions Year	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Scope 1	139.0	148.7	143.6	127.8	111.6	130.7
Scope 2	198.0	145.6	131.0	99.9	78.1	109.6
Scope 3	3,266.7	2,592.3	3,049.0	3,170.6	3,137.5	3,349.6
Total Gross Emissions	3,603.7	2,886.6	3,323.6	3,398.3	3,327.2	3,589.9
Renewable Generation	0.0	0.0	133.5	100.9	78.1	110.7
Total Net Emissions	3,603.7	2,886.6	3,190.1	3,297.4	3,249.1	3,479.2

¹ [Government conversion factors for company reporting of greenhouse gas emissions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/government-conversion-factors-for-company-reporting-of-greenhouse-gas-emissions)

² Carbon Dioxide Equivalent (CO₂e) = Carbon Dioxide, Methane and Nitrous Oxide represented as one equivalent unit, to measure the climate change impact of multiple gasses under one metric.

4. Emissions breakdown

<i>Emissions Sources</i>	<i>Consumption</i>		<i>Emissions Data</i>
Scope 1	Activity	Unit	t CO₂e
Gas Consumption	677,243	<i>kWh</i>	123.87
LPG Consumption		<i>tonnes</i>	
Oil Consumption		<i>litres</i>	
Council Vehicle Fleet			
Diesel Vehicle	1,628	<i>litres</i>	4.09
Petrol Vehicle	1,300	<i>litres</i>	2.71
Gas Oil		<i>litres</i>	
Total Scope 1			130.7

Scope 2	Activity Data	Unit	t CO₂e
Electricity Consumption	529,496	<i>kWh</i>	109.63
Total Scope 2			109.63

Scope 3	Activity Data	Unit	t CO₂e
Transmission & Distribution Losses	529,496	<i>kWh</i>	9.96
Water Supply	2,397	<i>m³</i>	0.37
Water Treatment	2,277	<i>m³</i>	0.42
Business Travel			
Car – conventional engine	76,162	<i>miles</i>	20.20
Car- hybrid	164	<i>miles</i>	0.03
Car - Electric	2,542	<i>miles</i>	0.18
Bus		<i>passenger km</i>	
Taxi		<i>passenger km</i>	
Rail		<i>passenger km</i>	
Ferry		<i>passenger km</i>	
Plane		<i>passenger km</i>	
Commuting			
Diesel Car	88,470	<i>miles</i>	23.7
Petrol Car	271,330	<i>miles</i>	72.4
Hybrid Car	35,150	<i>miles</i>	6.6
Electric Car	9,415	<i>miles</i>	0.66
Van	37,660	<i>miles</i>	15.17
Motorbike		<i>miles</i>	
Train		<i>passenger km</i>	
Contractor Travel			
Refuse Collection Vehicles	434,491	<i>litres</i>	1,091.6
Leisure Centres			
Electricity	2,957,882	<i>kWh</i>	612.43
Gas	7,548,357	<i>kWh</i>	1,380.59
Kerosene	12,396	<i>litres</i>	31.49
Diesel	10,181	<i>litres</i>	25.58

Petrol	2,142	<i>litres</i>	4.46
HVO	360	<i>litres</i>	1.01
Water Supply	53,549	<i>m³</i>	8.2
Water Treatment	50,872	<i>m³</i>	9.45
Grey Fleet	16,436	<i>miles</i>	4.41
Waste DMR	81	<i>tonnes</i>	0.52
Waste Municipal	219	<i>tonnes</i>	1.40
Grounds Maintenance			
Electricity	5,088	<i>kWh</i>	1.05
Diesel	9,146	<i>litres</i>	22.98
Petrol	2,111	<i>litres</i>	4.40
Gas Oil		<i>litres</i>	
Water Supply	3,068	<i>m³</i>	0.47
Water Treatment	2,915	<i>m³</i>	0.54
Waste Composting / Anaerobic Digestion	32.8	<i>tonnes</i>	0.29
Municipal Waste / Combustion	42.3	<i>tonnes</i>	0.27
Total Scope 3			3,349.6

TMBC Gross Emissions Total			3,589.9
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Renewable generation	Activity Data	Unit	t CO₂e
REGO Tariff	534,584	<i>kWh</i>	110.7
Total			

TMBC Net Emissions Total			3,479.18
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5. Company Information

The Tonbridge and Malling Borough Council is a local authority located in Kent, within the Southeast of England.

6. Reporting period

This reporting period is from 01/04/2024 to 31/03/2025.

7. Emissions overview

7.1. Scope 1

Scope 1 emissions were 103.7 tCO₂e in 2024/25, a fall of 6% from the 2019/2020 baseline. Scope 1 accounted for 3.6% of total emissions from the council estate and operations in 2024/25. In other words, emissions from gas used for heating the council's offices and emissions from TMBC's own vehicles were greater than emissions from electricity use (Scope 2), but much less than the indirect emissions of Scope 3.

Gas consumption for heating produces the majority of Scope 1 emissions, and remain broadly equivalent to baseline gas emissions. Emissions from TMBC owned vehicles continue to fall with the introduction of further electric vehicles for parking enforcement. Emissions from TMBC vehicles were 58% lower than the baseline in 2024/25, and fell by 21% year on year from 2023/24.

7.2. Scope 2

Scope 2 emissions were 109.6 tCO₂e in 2024/25. This is higher than electricity emissions last year, but still a fall of 45% from the baseline year. One reason for higher consumption in the past year may be the increased use of electric vehicles (see Scope 1). However, as TMBC is on a renewable generation electricity tariff, these emissions are accounted as zero for net emissions.

Scope 2 contributed only 3.1% to TMBC's total gross emissions, although these emissions only come from one source: electricity at TMBC sites.

7.3. Scope 3

Scope 3 emissions totalled 3,349.6 tCO₂e in 2024/25, which is 2.5% higher than the 2019/20 baseline. However, this small rise in reported figures may also be due to some data issues and lower readings during the baseline year. The leisure facilities are the largest emitters on the council's estate and operations but, for example, during the 2019 baseline year Larkfield Leisure Centre was partially closed for roofing and maintenance works, providing an unusually low gas use reading for that year. Additionally, the Leisure Trust took on management for Leybourne Lakes Country Park in November 2021, such that electricity use figures for this site are not reflected in baseline totals. As such it is reasonable to assume that Scope 3 emissions are broadly equivalent to their levels in the baseline year, with the latest reporting year 2024/25 offering a more accurate picture of emissions.

Leisure facilities remain the most significant contributor to total and to Scope 3 emissions, producing 2,078.6 tCO₂e in 2024/25, or 62% of the Scope 3 total. Refuse collection vehicles were the second largest source of total and Scope 3 emissions, producing 1,091.6 tCO₂e, accounting for a third (33%) of the Scope 3 total. Emissions from Refuse Collection Vehicles are 3% higher in 2024/25 than in the previous year, perhaps due to meeting additional demand from increasing number of households.

Staff commuting by car or van was the third largest source of Scope 3 emissions, producing 118.5 tCO₂e or 4% of the Scope 3 total. Other sources produced less than 1% of Scope 3 emissions, including business travel (20.4 tCO₂e) and the Grounds Maintenance contract (30 tCO₂e). Water supply and treatment, and transmissions and distribution losses accounted for 0.3% of Scope 3 emissions.

7.4. Carbon offsets

TMBC continued its renewable electricity tariff. Therefore, emissions associated from electricity consumption are 0 tCO₂e for reporting purposes.

However, for clarity, and to highlight the emissions impact of energy consumption, we report on gross emissions (without the renewable tariff) and net emissions, which considers the tariff. This approach is highlighted in the emissions breakdown section on page 4.

TMBC's net emissions are reported as the final net emissions figure for the corresponding fiscal year. Therefore, for 2024 / 2025, TMBC's net total emissions are reported as **3,479.2** tCO₂e.

7.5. Significant emissions and consumption changes

As in previous years, the largest changes from baseline are due to the introduction of electric vehicles for parking enforcement, and changes in working patterns that have significantly reduced utilities use and commuting emissions. The reduction in electricity (Scope 2) emissions is significant at 45% lower than baseline, over and above reductions due to increasing use of renewables for supply from the National Grid. As noted in sections 7.1 and 7.2, the switch to electric vehicles has reduced Scope 1 vehicle emissions significantly from the baseline and year-on-year, while increasingly electricity use at the offices. However, this remains an overall improvement in emissions, particularly with the use of renewable energy supply.

Although emissions from commuting by car or van are 66% lower than the baseline in 2024/25, they have risen by 3% to 118.5 tCO₂e since 2023/24. This may reflect further changes in working patterns, with more people travelling into the office more frequently, as there has also been a positive shift towards hybrid and electric vehicle ownership by staff. Conversely, the council seems to have retained the reduction in business travel that followed the COVID pandemic, with emissions falling for a fifth year in a row to 20.4 tCO₂e, although there is likely some under-claiming of business travel. Emissions from home-working in 2024/25 have not been calculated.

Emissions from the largest emitting sources, leisure facilities and Refuse Collection Vehicles, remain high and, as noted above, are both increasingly slightly year-on-year. Emissions from leisure facilities rose 11% in 2024/25 compared to the previous year, although data issues and seasonal variability should be taken into account. Due to the investments in solar panels, a heat pump at Larkfield Leisure Centre, due to be installed in 2025, and other energy efficiency measures, this source of emissions should start to come down.

7.6. Largest emitting sources

1. Leisure facilities (2,078.6 tCO₂e)
2. Refuse collection vehicles fuel (1,091.6 tCO₂e)
3. Gas consumption at council offices (124 tCO₂e)
4. Commuting by car or van (118.5 tCO₂e)

5. Electricity consumption at council owned sites (110 tCO₂e)

8. Measuring and reporting

Reporting on TMBC emissions will take place annually, following the greenhouse gas protocol and DESNZ reporting guidelines.

This carbon audit will be reported to management team, and consequently taken through any relevant scrutiny process.

9. Scope Explanation

<i>Scope</i>	<i>Activity</i>	<i>Description</i>	<i>Data Source</i>
Scope 1	Gas Consumption	Used to heat our buildings.	Data obtained from council utility bills.
Scope 1	Oil Consumption	Used to heat our buildings.	Data obtained from council utility bills.
Scope 1	Vehicle Fleet	The council's vehicle fleet.	Data obtained from council fuel invoices.
Scope 2	Purchased electricity	Electricity purchased from the national grid to power the council's buildings.	Data obtained from council utility bills.
Scope 3	Transmission and Distribution Losses	Indirect emissions from the transmission and distribution of our purchased electricity.	Data obtained from council utility bills.
Scope 3	Water Supply	The supply of water to our buildings.	Data obtained from council utility bills.
Scope 3	Water Treatment	The water we return to the system (90% return to sewer rate).	Data obtained from council utility bills.
Scope 3	Business Travel	Staff and member travel in their own vehicles on business grounds.	Obtained using employee mileage claims.
Scope 3	Commuting	Staff travel to and from work premises.	Obtained using staff surveys.
Scope 3	Contractor Travel	Travel by contractors to conduct work commissioned by the council, e.g., waste collection.	Obtained through contractor fuel records.
Scope 3	Leisure Centres	Emissions from leisure centre use of electricity, gas, fuel, water, vehicles, and disposal of waste.	Data obtained from council bills, and mileage claims.
Scope 3	Grounds Maintenance	Emissions from Grounds Maintenance use of electricity, gas, fuel, water, vehicles, and disposal of waste.	Data obtained from council bills, and mileage claims.

10. Organisational boundary

Our organisation boundary is (as defined by BEIS) activities in which the organisation has financial and operational control. Therefore, the boundary covers everything that TMBC has the above control over. This follows guidance from the previous National Indicator 185:

“The indicator is to include all CO₂ emissions from the delivery of local authority functions. In terms of the meaning of the word in legislation "function" covers both the duties and powers of an authority. It covers all an authority's own operations and outsourced services” (DEFRA, 2008, p.3).

11. Geographical breakdown

All TMBC activities occur within the Tonbridge and Malling District, except for some staff and member business travel and commuting activities.

12. Base year

TMBCs base year is: 01/04/2019 to 31/03/2020.

13. Base year recalculation policy

This base year will be recalculated following any significant structural or methodological changes. If lack of data prevents the base year from being recalculated, then the following year will be recalculated instead.

As of September 2022, the base year has already been recalculated to include commuting emissions data.

Base year emissions are 3,603.7tCO₂e

14. Emissions target

TMBC has a 2030 carbon neutral aspiration.

15. Intensity measurement

No intensity measurement has been conducted.

16. External assurance statement

No external assurance has been conducted. However, the initial base year calculation was produced externally and then recalculated internally.

17. Carbon offsetting

No carbon offsetting has been conducted for 2024/25.

18. Renewable / green tariffs

TMBC has been on a renewable tariff (Renewable Electricity Guarantee of Origin) since 2021/22.

19. Background documents

- Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard.
- HM Government: Environmental Reporting Guidelines.

19. References

- UK Government GHG Conversion Factors for Company Reporting, Department for Energy Security & Net Zero, and Department for Environment, Food & Rural Affairs, 2024. https://assets.publishing.service.gov.uk/media/6722567487df31a87d8c497e/ghg-conversion-factors-2024-full_set_for_advanced_users_v1_1.xlsx. Last accessed 3 April 2025.
- Department for Environment, Food and Rural Affairs (DEFRA)., 2008. *Guidance to local authorities and Government Offices on National Indicator 185*. London, UK: DEFRA. pp. 3.

20. Annex 1: Detailed emissions statement

Please see pages 10 - 12 for our complete emissions statement. This details the following gasses, in addition to carbon dioxide equivalent (CO₂e): carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

TMBC Detailed Emissions Statement 2024/25

<i>Emissions Sources</i>	<i>Consumption</i>		<i>Emissions (tonnes)</i>			
Scope 1	Activity Data	Unit	t CO₂e	t CO₂	t CH₄	t N₂O
Gas Consumption	677,243	<i>kWh</i>	123.87	123.62	0.19	0.06
LPG Consumption		<i>tonnes</i>				
Oil Consumption		<i>litres</i>				
Council Vehicle Fleet	-	-	-	-	-	-
Diesel Vehicle	1,628	<i>litres</i>	4.09	4.04	0.00	0.05
Petrol Vehicle	1,300	<i>litres</i>	2.71	2.69	0.01	0.01
Gas Oil		<i>litres</i>				
Total Scope 1	-	-	130.7	130.3	0.2	0.1

Scope 2	Activity Data	Unit	t CO₂e	t CO₂	t CH₄	t N₂O
Electricity Consumption	529,496	<i>kWh</i>	109.63	108.51	0.48	0.65
Total Scope 2	-	-	109.63	108.51	0.48	0.65

Scope 3	Activity Data	Unit	t CO₂e	t CO₂	t CH₄	t N₂O
Transmission & Distribution Losses	529,496	<i>kWh</i>	9.69	9.59	0.04	0.06
Water Supply	2,397	<i>m³</i>	0.37			
Water Treatment	2,277	<i>m³</i>	0.42			
Business Travel	-	-	-	-	-	-
Small Car	26,051	<i>miles</i>	5.98	5.94	0.01	0.03
Medium Car	46,536	<i>miles</i>	12.92	12.83	0.01	0.08
Large Car	3,575	<i>miles</i>	1.29	1.28	0.00	0.01
Hybrid Car	164	<i>miles</i>	0.03	0.03	0.00	0.00
Electric Car	2,542	<i>miles</i>	0.18	0.18	0.00	0.00

Bus		<i>passenger km</i>				
Taxi		<i>passenger km</i>				
Rail		<i>passenger km</i>				
Ferry		<i>passenger km</i>				
Plane		<i>passenger km</i>				
Commuting	-	-	-	-	-	-
Diesel Car	88,470	<i>miles</i>	23.66	23.42	0.00	0.24
Petrol Car	271,330	<i>miles</i>	72.42	72.13	0.15	0.14
Hybrid Car	35,150	<i>miles</i>	6.57	6.51	0.01	0.05
Electric Car	9,415	<i>miles</i>	0.66	0.65	0.00	0.00
Van (diesel)	37,660	<i>miles</i>	15.17	15.07	0.00	0.10
Motorbike		<i>miles</i>				
Train		<i>passenger km</i>				
Contractor Travel	-	-	-	-	-	-
Refuse Collection Vehicles	434,491	<i>litres</i>	1,091.62	1,077.21	0.13	14.28
Leisure Centres	-	-	-	-	-	-
Electricity	2,957,882	<i>kWh</i>	612.43	606.16	2.66	3.61
Gas	7,548,357	<i>kWh</i>	1,380.59	1,377.80	2.11	0.68
Kerosene	12,396	<i>litres</i>	31.49	31.33	0.08	0.07
Diesel	10,181	<i>litres</i>	25.58	25.24	0.00	0.33
Petrol	2,142	<i>litres</i>	4.46	4.43	0.02	0.01
HVO	360	<i>litres</i>	0.01	-	-	-
Water Supply	53,549	<i>m³</i>	8.20	-	-	-
Water Treatment	50,872	<i>m³</i>	9.45	-	-	-
Grey Fleet	16,436	<i>miles</i>	4.41	4.38	0.00	0.03
Waste DMR	81	<i>tonnes</i>	0.52	-	-	-
Waste Municipal	219	<i>tonnes</i>	1.40	-	-	-
Grounds Maintenance						
Electricity	5,088	<i>kWh</i>	1.05	1.04	0.00	0.01
Diesel	9,146	<i>litres</i>	22.98	22.68	0.00	0.30

Petrol	2,111	litres	4.40	4.37	0.02	0.01
Gas Oil		litres				
Water Supply	3,068	m ³	0.47	0.00	0.00	0.00
Water Treatment	2,914	m ³	0.54	0.00	0.00	0.00
Waste Composting / Anaerobic Digestion	32.8	tonnes	0.29	0.00	0.00	0.00
Municipal Waste / Combustion	42.77	tonnes	0.27	0.00	0.00	0.00
Total Scope 3			3,349.56	3,302.29	5.28	20.05

TMBC Gross Emissions Total	-	-	3,589.87	3,541.15	5.95	20.81
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Renewable generation	Activity Data	Unit	t CO₂e	t CO₂	t CH₄	t N₂O
REGO Tariff	534,584	kWh	110.69	109.55	0.48	0.65
Total	-	-				

-	-	-	t CO₂e	t CO₂	t CH₄	t N₂O
TMBC Net Emissions Total	-	-	3,479.18	3,431.60	5.47	20.16

21. Version control

Document name	Tonbridge and Malling Borough Council Carbon Audit 2024/25		
Document description	This carbon audit details emissions from TMBC for the 2024/25 fiscal year.		
Responsible officer	Gill Fox, Policy, Scrutiny & Communities Manager		
Version Number	Update reason	Author	Review date
1	First version	Carrie Spencer, Climate Change Officer	TBC