



ANNUAL GREENHOUSE GAS EMISSIONS REPORT 2024/2025

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1. Executive Summary

1.1. As outlined in the Climate Emergency declared on 10th December 2020, Spelthorne Borough Council is committed to delivering Net Zero at Scopes 1&2 by 2030.

1.2. The Council is delivering its Climate Change Strategy which has a prescribed decarbonisation pathway involving reducing energy consumption and decarbonising our operational fleet and heating.

1.3. The Council reports both total Greenhouse Gas emissions and net Greenhouse Gas emissions. Total emissions represent all greenhouse gases produced by the Council's operations, while net emissions account for reductions achieved through measures such as procured renewable electricity and carbon sequestration.

1.4. In Financial Year 2024/2025 total Greenhouse Gas Emissions were: 1,374.38 tCO₂e. Compared to our Baseline year FY 2019/2020, total emissions have increased by 179.36tCO₂e or 15.01%.

1.5. In Financial Year 2024/2025 net Greenhouse Gas Emissions were: 1,038.50tCO₂e. Compared to our Baseline year FY 2019/2020, net emissions have decreased by 156.52tCO₂e or 15.07%.

1.6. Key terms and phrases can be explained in section 19.

2. Organisation Information

2.1. Spelthorne Borough Council is a borough authority responsible for providing a wide range of services to people who live in Spelthorne, to visitors, and to businesses and other organisations in the Borough.

2.2. These services include housing, refuse and recycling collection, licensing, planning and building control, Council Tax collection, and environmental health.

2.3. According to the 2021 Census, Spelthorne has a population of 102,956. The Council is made up of 39 elected Members.

2.4. Further information about the Council can be found on the website (Homepage | Spelthorne Borough Council) and in its constitution, which sets out the roles and responsibilities of the Council, its Members, and its staff.

2.5. Spelthorne BC has 435 employees, 54 buildings, 86 vehicles and 435 acres of land.

3. Reporting Period

3.1. 1st April 2024 – 31st March 2025

4. Organisational Boundary

4.1. We have defined our organisational boundary according to the Financial Control framework under the Greenhouse Gas Protocol ([Homepage | GHG Protocol](#)). Further detail on which operations or activities have been included within our organisational boundary for the purposes of compiling this greenhouse gas report is provided under 'Operational Scope' below.

5. Operational Scopes

5.1. The following table (Figure 1) details what sources of emissions are included and excluded in scope

5.2. Figure 1: Table of Operational Scope of Emissions



Scope	Source category	Included?	Rationale
1	Gas Consumption: Owned Buildings	Yes	This includes our office buildings, community centres, sheltered and temporary housing
1	Gas Consumption: Buildings we own and lease to others	Partially	We have only included emissions arising from energy used and paid for by the Council in the communal areas of some of the buildings that we lease out.
1	Gas Consumption: in buildings we lease from others	Yes	Currently no buildings fulfil this criterion
1	Other Fuel Consumption	Yes	Includes Waste Fleet, Operational vehicles, oil generator
1	Land Use Emissions	No	Measuring emissions released and sequestered from our land use are being considered but there is not a robust methodology for reporting
1	Fugitive Emissions (from A/C units)	Yes	Consistent monitoring of all air conditioning units
2	Purchased Electricity: Owned buildings	Yes	This includes our office buildings, community centres, car parks, sheltered and temporary housing.
2	Purchased Electricity: Buildings we own and lease to others	Partially	We have only included emissions arising from energy used and paid for by the Council in the communal areas of some of the buildings that we lease out.
2	Purchased Electricity: Buildings we lease from others	Yes	Currently no buildings fulfil this criterion
3	Purchased Goods & Services	No	No robust methodology for consistent data collection and reporting
3	Business Mileage	Yes	All recorded emissions from business travel (car, train)
3	Employee Commuting	Yes	Captures indirect emissions from employee travel to work
3	Working from Home	Yes	Accounts for home energy use during remote work
3	Outsourced activities	No	No robust methodology for consistent data collection and reporting
3	Waste Disposal	No	No robust methodology for consistent data collection and reporting
3	Leased Assets	No	No robust methodology for consistent data collection and reporting
3	Transmission & Distribution Losses	Yes	Taking a % increase from Electricity reports from Energy Supplier



6. Methodology

6.1. Using the GHG Protocol framework, we have followed the guidance provided in Environmental Reporting Guidelines published by Defra (Department for Environment, Food and Rural Affairs) on how to measure and report greenhouse gas emissions and also the guidance in the Greenhouse Gas Accounting Tool developed for councils by Local Partnerships, working with the LGA.

6.2. The emissions factors used to calculate the emissions in this Greenhouse Gas Report are those provided by Defra (Department for Environment Food & Rural Affairs) titled: 'UK Government GHG Conversion Factors 2025 which is available at: Greenhouse gas reporting: conversion factors 2025 – GOV.UK

6.3. The following table (Figure 2) details the data quality of each reported source category. Data quality is determined by its consistency, accuracy and methodology.

6.4. Figure 2: Data Quality of Source Category

Source category	Data Quality	Method/data source
Gas Consumption: Owned Buildings	High	Energy Supplier
Gas Consumption: Buildings we own and lease to others	High	Reports
Gas Consumption: in buildings we lease from others		Energy Supplier
Other Fuel Consumption	High	Reports
Fugitive Emissions (from A/C units)	High	Energy Supplier
Purchased Electricity: Owned buildings	Low	Reports
Purchased Electricity: Buildings we own and lease to others	High	Neighbourhood Services Report
Purchased Electricity: Buildings we lease from others	High	Assets Reports
Business Mileage	High	Energy Supplier
Employee Commuting	Medium	Reports
Working from Home	Low	Energy Supplier
Transmission & Distribution Losses	Low	Reports
Reports	Medium	Energy Supplier
Purchased Electricity: Buildings we lease from others	High	Reports
Reports	No	HR Annual Reporting
Business Mileage	Medium	Staff Survey 25
Employee Commuting	Low	Staff Survey 25
Working from Home	Low	% of Electricity from Energy Supplier Reports
Transmission & Distribution Losses	Medium	% of Electricity from Energy Supplier Reports

7. Summary of Emissions

7.1. The following table (Figure 3) details the summary of emissions by Scope 1&2 source emission from Financial Year 2019/2020 to 2024/2025. It details the total emissions as well as the emission types involved in reducing our emissions (Land Use, Offsets, Green Tariff: for further information see Section 11)

7.2. Figure 3: Summary of emission source by Scope 1&2 for Financial Year 2024/2025

		Year (tCO2e)					
Scope	Emission Type	19/20	20/21	21/22	22/23	23/24	24/25
Scope 1	Vehicles	627.35	593.44	659.66	675.78	688.23	685.49
Scope 1	Gas	228.13	220.58	286.51	291.36	353.77	347.92
Scope 1	Oil	5.09	5.09	5.53	5.09	5.09	5.09
Scope 2	Purchased Electricity	334.43	208.72	205.62	277.04	289.96	335.88
Total Emissions	-	1195.02	1027.83	1157.32	1249.27	1337.05	1374.38
Scope 1	Land Use	-	-	-	-	-	-
Scope 2	Green Tariff	0	0	-205.62	-277.04	-289.96	-335.88
-	Offsets	0	0	0	0	0	0
Total Net Emissions	-	1195.02	1027.83	951.70	972.23	1047.09	1038.50

7.3. The following table (Figure 4) details the summary of emissions by Scope 3 source emission for Financial Year 2024/2025.

7.4. Figure 4: Summary of emission source by Scope 3 for Financial Year 2024/2025.

Scope	Emission Type	24/25
Scope 3	Business Mileage	14.80
Scope 3	Employee Commuting	354.39
Scope 3	Working from Home	118.49
Scope 3	Transmission & Distribution Losses	5.92
Total Emissions	-	493.60



8. Source Emissions Narrative

8.1. Total emissions continued their slowly increasing trend, rising slightly from 1,337.05 tCO₂e in FY23/24 to 1,374.38 tCO₂e in FY24/25. However, due to increased electrical consumption net emissions decreased from 1047.09tCO₂e in FY23/24 to 1038.50tCO₂e in FY24/25. No offsets or land-use values have been applied in this reporting year.

8.2. Scope 1: Gas consumption emissions reduced marginally to 347.92 tCO₂e, a 1.7% decrease from the previous year. However, gas emissions remain 52.5% above the baseline (228.13 tCO₂e). The increase over the longer term is driven by higher heating demand and building use, while the slight reduction this year may indicate early impact from energy efficiency measures or a milder heating season.

8.3. Scope 1: Emissions from the vehicle fleet fell slightly to 685.49 tCO₂e in FY24/25, a 0.4% decrease from FY23/24. Despite this small year-on-year improvement, emissions remain 9.27% higher than the baseline year (627.35 tCO₂e). This reflects long-term growth in operational mileage and fleet demand, although recent stabilisation suggests emerging efficiencies or reduced fuel use.

8.4. Scope 1: Oil use remained stable at 5.09 tCO₂e in FY24/25, showing no change from FY23/24 and returning to the same level as the baseline year. This emission source continues to represent a very small proportion of the Council's footprint, with minimal year-on-year variation.

8.5. Scope 2: Electricity-related emissions rose to 335.88 tCO₂e, a 15.8% increase from FY23/24. Compared with the baseline year, emissions are 0.43% higher (334.43 tCO₂e). This growth is primarily driven by increased electricity consumption and changes in the national grid emission factor, reversing previous downward trends associated with grid decarbonisation. The significant year-on-year increase suggests a need for strengthened demand-reduction measures.

9. Baseline Year

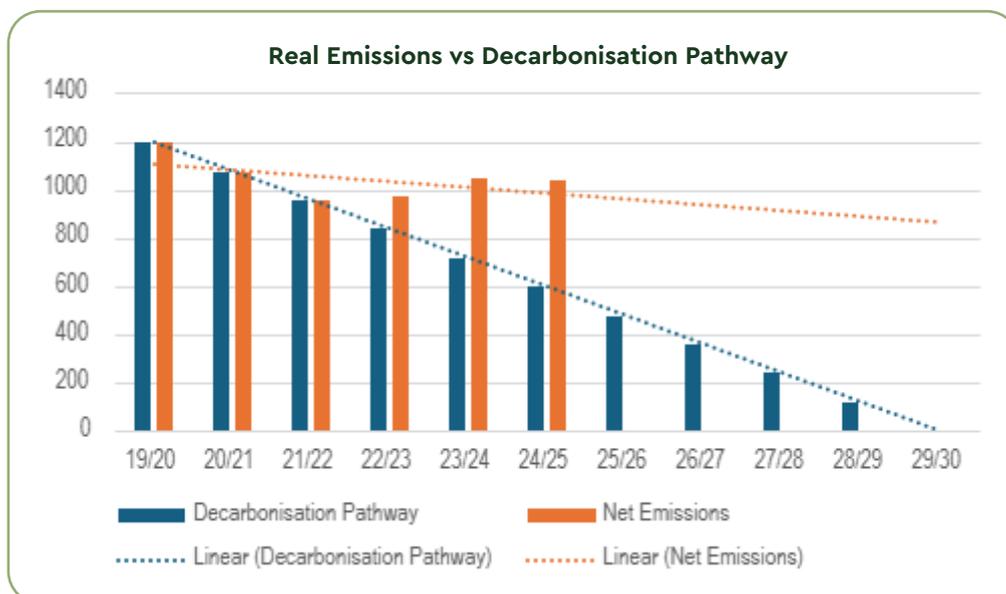
9.1. Financial Year 2019/2020

10. Target & Progress

10.1. When the Council declared a Climate Emergency it committed itself to delivering net zero at Scope 1&2 emissions. Figure 5 below demonstrates that as our annual net emissions plateau the Council moves further away from our decarbonisation pathway. From FY 25/26 onwards the Council will have to reduce emissions by 20% a year which equates to 207.7tCO₂e.

10.2. Currently there is a delivery gap of 440.99tCO₂e between the decarbonisation pathway and the net emissions.

10.3. Figure 5: Bar chart demonstrating the decarbonisation pathway against the net emissions from each financial year.



11. Additional Reporting

11.1. In addition to our core greenhouse gas inventory, which reports all Scope 1 and Scope 2 emissions from our buildings and fleet, Spelthorne Borough Council also consider 2 further metrics and reports one further supplementary metric:

- (a) Considers: carbon offsetting
- (b) Considers: carbon sequestration from council-owned land
- (c) Reports: market-based emissions from our renewable electricity tariff (REGO-backed).

11.2. These items are reported under our net emissions reporting framework

12. Carbon Offsetting

12.1. Spelthorne Borough Council currently has no commitments to funding offsetting initiatives. The Council does not have an offsetting policy.

13. Land Use

13.1. Spelthorne BC owns and manages a substantial area of parks, woodlands and green spaces that naturally remove carbon from the atmosphere. Because we already measure the emissions from our buildings and fleet, it is reasonable and consistent under the WLGA framework to also acknowledge the carbon removals that occur on land we directly control.

13.2. We will not report on this until a full Carbon Sequestration assessment of our land has been completed.

13.3. Report and methodology is expected to be delivered for the FY25/26 Emissions Report.

14. Figures Renewable Energy Tariff (REGO)

14.1. The Council has successfully secured a renewable electricity tariff backed by Renewable Energy Guarantees of Origin (REGOs) for the current reporting year.

14.2. In line with GHG Protocol best practice, we will report both:

- a) Location-based emissions (reflecting the grid average emissions factor) (total emissions), and
- b) Market-based emissions (reflecting our procurement of renewable electricity through REGOs) (net emissions).

14.3. This dual reporting approach ensures transparency and comparability across reporting periods while highlighting the additional impact of our renewable electricity procurement.

14.4. Certificates confirming our REGO-backed tariff are provided in Appendix A and Appendix B.

15. External Assurance

15.1. This report has not been externally assured.

15.2. Moving forward for the FY 25/26 report the Council is exploring this option to ensure that our reporting is robust and consistent.

16. Further information

16.1. For further information please contact: netzero@spelthorne.gov.uk

17. Figures

17.1. Figure 1: Table of Operational Scope of Emissions

17.2. Figure 2: Data Quality of Source Category

17.3. Figure 3: Summary of emission source by Scope 1&2 for Financial Year 2024/2025

17.4. Figure 4: Summary of emission source by Scope 3 for Financial Year 2024/2025.

17.5. Figure 5: Bar chart demonstrating the decarbonisation pathway against the net emissions from each financial year.

18. Appendix

18.1. Appendix A: REGO Tariff

18.2. Appendix B: REGO Tariff

19. Glossary

Term	Definition
Adaptation	Steps people, communities, or nature take to cope with the effects of climate change, such as building flood defences or planting trees that can handle hotter weather.
Benefits	The good results that come from taking climate action, like cleaner air, healthier communities, or saving money on energy.
Biodiversity	The variety of plants, animals, and other living things in an area. Healthy biodiversity helps nature stay strong in the face of climate change.
Carbon	In climate discussions, this usually means carbon dioxide and other gases released when we burn fossil fuels. These gases are a major cause of global warming.
Carbon Neutral	When the amount of carbon released by an activity is balanced by removing the same amount from the air, so the overall impact is zero.
Climate Change	The long-term warming of the planet and the changes in weather patterns caused mainly by human activities, especially the burning of coal, oil, and gas.
Community Climate Action Plans	Plans created by local people to decide how their area will reduce pollution, prepare for climate impacts, and protect nature.
Consultation	A process where organisations ask the public for their views before finalising climate-related plans or decisions.
Culture	The shared ideas, values, traditions, and ways of living that influence how people understand and respond to climate issues.
Declaration	A public statement that shows a commitment or intention, such as a council declaring a climate emergency.
Ecology / Ecological	How living things interact with each other and with their surroundings. Climate change affects these relationships in many ways.
Emissions	Gases released into the air, especially greenhouse gases like carbon dioxide and methane, which contribute to global warming.
Enable	To give people or organisations the support or resources they need to take climate action.
Environment	The natural world around us, including air, water, soil, plants, animals, and the places where people live and work.
Fugitive Emissions	Greenhouse gases that escape into the air unintentionally during the production, processing, or transport of fuels and industrial materials. This includes leaks from pipes, tanks, valves, and equipment, as well as gases released during mining or drilling.
Greenhouse Gases	Gases that trap heat in the atmosphere and warm the planet. Key examples include carbon dioxide, methane, and nitrous oxide.
Just Transition	Making the shift to a greener economy in a way that is fair and supportive of workers, communities, and people who may be more affected by the changes.
Net Zero	When the amount of greenhouse gases we put into the atmosphere is equal to the amount taken out.
Pesticides	Chemicals used to control pests in farming and gardening. Their use connects to climate issues because they affect soil health and ecosystems.
Principles	Core ideas or values that guide how climate work should be carried out, such as fairness, openness, and long-term thinking.
Resilience	The ability of people, communities, or natural systems to cope with the impacts of climate change, recover quickly after extreme events, and continue to function and thrive even as conditions change.
Scopes	Categories used to measure greenhouse gas emissions: Scope 1 (direct emissions), Scope 2 (energy-related indirect emissions), and Scope 3 (all other indirect emissions).
Solar Panels	Devices that turn sunlight into electricity and help reduce the need for fossil fuels.
Values	The beliefs that shape what a person or community cares about and how they choose to act on climate issues.