Statistical bulletin

UK Environmental Accounts: 2026

Measuring the contribution of the environment to the economy, the impact of economic activity on the environment, and responses to environmental issues.

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To be announced

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1 . Overview

Emissions and direct energy use

We estimate that the UK emitted 478 million tonnes of greenhouse gases (GHG) on a residence basis in 2024. This measure includes emissions from UK residents and UK-registered businesses wherever they are in the world.

Emissions are measured in million tonnes of carbon dioxide equivalent (MtCO2e) and were down by 0.4% compared with 2023. They were the lowest since current records began in 1990.

In 2024:

- households accounted for the largest share of carbon dioxide equivalent (CO2e) emissions (25.9%) on this measure, followed by the transport industry (16.3%)
- 140 tonnes of CO2e were emitted for every million pounds of economic activity, down by 72.0% since 1990
- fossil fuels remained the largest source of direct energy consumption in the UK; they accounted for 77.7%, with renewable energy increasing to 15.3%

Environmental goods and services sectors

There were 506,200 full-time equivalent (FTE) jobs in the environmental goods and services sector (EGSS) in 2023, up by 3.2% compared with 2022.

This sector contributed an estimated £54.2 billion of gross value added (GVA) to the UK economy in 2023.

Environmental taxes

Environmental taxes as a proportion of gross domestic product (GDP) fell from 1.9% in 2024 to 1.8% in 2025. The latest tax incidence data show that in 2023, businesses paid 64.5% and households paid 34.6% of environmental taxes.

For taxes paid by households, the average per household in 2023 (the latest year available) was up by 6.2% to £666 compared with £627 in 2022.

The latest year of available statistics changes throughout this release depending on topic. Some UK breakdowns and international comparisons are only available for earlier years.

2 . How to use these statistics

Our environmental accounts follow the United Nations System of Environmental-Economic Accounting (SEEA) Central Framework accounting rules, which are aligned with the United Nations System of National Accounts and the UK National Accounts.

With these statistics, you can:

- analyse long-term trends in estimated UK greenhouse gas emissions and energy use between 1990 and 2024, and compare different industries and divisions at a two-digit Standard Industrial Classification code level
- explore the changing contribution of the environmental sector to the UK economy between 2010 and 2023, including numbers of jobs
- understand how much environmental taxes were raised between 1997 and 2025

With these statistics, you cannot:

- draw conclusions about the UK's progress towards international and domestic targets such as net zero
- understand the impact of emissions embedded in goods and services imported into the UK, as only emissions from UK residents and UK-registered businesses are included
- compare all the measures on a like-for-like basis, as the latest data are from different years

3 . Emissions and energy use

Greenhouse gases

Most greenhouse gas (GHG) emissions come from households or industries using energy, but they can also come from other sources such as the degradation of peatland. To measure GHG we use carbon dioxide equivalent (CO_2e), a metric that compares emissions by converting amounts of other GHGs gases into the equivalent amount of carbon dioxide with the same global warming potential.

Total GHG emissions on a residence basis were 478 million tonnes of CO_2 equivalent ($MtCO_2e$) in 2024, the lowest since current records began in 1990.

Emissions have fallen by 41.8% since 1990. This is mainly because emissions from the energy industry decreased by 67.4% over the same period. Households remained the largest single contributor to emissions in 2024 (25.9%), when compared with individual industries. However, industrial emissions as a whole made up 74.1% of total emissions.

Emissions by industry and households

Industry emissions

Figure 1: Transport was the single largest industry (excluding households) emitter of greenhouse gases in the UK in 2024

Residence-based greenhouse gas emissions for the four highest emitting industries, UK, 1990 to 2024

Notes:

1. Industry aggregations are based on the UK Standard Industrial Classification (SIC) 2007. The electricity, gas, steam and air-conditioning supply industry is referred to as the energy supply sector or industry. The transport and storage industry is referred to as the transport sector or industry.
2. The Air Emission Accounts these data come from only include direct residence-based emissions, defined as "'scope 1" under the greenhouse gas protocol guidance.
3. "Energy" includes "Electricity, gas, steam and air conditioning supply".

Among industries, transport had the highest emissions in 2024. This includes all forms of transport from taxis, underground rail, water transport and air travel. The sector's emissions were an estimated 78 MtCO2e, 16.3% of the total.

Transport industry emissions have remained relatively stable until 2020, when the UK was affected by coronavirus (COVID-19), shown in Figure 1.

Air transport still plays a major role in travel emissions, accounting for 51.6% of all transport emissions in 2024. This includes flights by UK-based airlines around the world. Air transport emissions fell by 58.1% in 2020 when most international travel was heavily restricted because of coronavirus. The first full year with no restrictions was 2022, where air travel emissions were up by 83.5% from 2021 levels. They are now 40 MtCO2e, more than double the 2020 level.

There was a year-on-year fall among the energy industries, down by 5.5% from 2023 levels, though smaller than the 13.7% decrease between 2022 and 2023. The second-largest decrease in 2024, of 4.9%, was in manufacturing.

We have also analysed employment in high-emissions industries across UK regions.

Household emissions

Households have been the largest single source of UK GHG emissions since 2015 and accounted for 25.9% of the total in 2024.

We measure emissions by households by assigning them based on the things individual consumers buy and use. The measure also includes emissions from activities where households act as an employer (such as when a family hires a gardener) or as a producer of goods for their own use (for example, people growing their own vegetables).

The main contributors to household emissions are domestic travel (particularly driving) and heating homes. Non-travel emissions have historically been higher than for travel. However, they have been around the same level since 2023.

Figure 2: Travel and non-travel greenhouse gas emissions made up a similar proportion of household emissions in 2024

Residence-based greenhouse gas emissions from households measured through consumer expenditure, UK, 1990 to 2024

Notes:

1. Industry aggregations are based on the UK Standard Industrial Classification (SIC) 2007. Households include "consumer expenditure" and "activities of households as employers; undifferentiated goods and services - producing activities of households for own use" (for example, employing a cleaner and growing vegetables for your own consumption).

2. Non-travel related emissions are from the consumption of fuels and other products by individuals in the UK, as opposed to the production of these by industry. Travel-related emissions consist almost entirely of road transport emissions. Travel and non travel add up to total household emissions, known as consumer expenditure.

3. The Air Emission Accounts these data come from only include direct residence-based emissions, defined as "scope 1" under the greenhouse gas protocol guidance.

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Emissions intensity

Emissions intensity looks at GHG emissions per unit of economic output.

Figure 3: The UK’s economy emissions intensity declined steadily between 1990 and 2024

Residence-based greenhouse gas emissions intensity, UK, 1990 to 2024

Notes:

1. Greenhouse gas emissions intensity is calculated by dividing the level of greenhouse gas emissions by gross value added (GVA). GVA is the difference between output and intermediate consumption for any given industry. This means the difference between the value of goods and services produced (output) and the cost of raw materials and other inputs that are used up in production (intermediate consumption). GVA are chained volume measures, in constant prices with 2023 as the base year. All emissions intensity figures are calculated excluding consumer expenditure (often referred to as "households" in the article accompanying this dataset).

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There was no change in the UK economy's emissions intensity between 2023 and 2024. However, emissions intensity has fallen by 72.0% compared with 1990, from 500 to 140 tonnes of CO2 equivalent (CO2e) emitted per £1 million of gross value added (GVA) between 1990 and 2024.

While this could suggest the UK is moving towards a lower carbon economy, these residence-based statistics do not include emissions from goods and services produced overseas but imported to the UK. The Department for Environment, Food and Rural Affairs (Defra) publishes a further measure of UK emissions focusing on consumption, which is known as the "carbon footprint".

We have revised our emissions intensity data time series to reflect changes in how we calculate GVA. Previously, energy was estimated as the most emissions-intensive sector in the UK. Following revision, agriculture is now estimated as the most intensive.

Our GVA measurement has improved the accuracy of import and export prices of crude oil, natural gas and petroleum products, which has caused the GVA figures to be revised upwards for the energy sector.

More information on our revisions process, and on the rebasing of gross domestic product (GDP), which affects GVA, is available in our Blue Book 2025: advanced aggregate estimates article.

Figure 4: The agriculture industry has consistently been the most emissions-intense industry since 1990

Residence-based greenhouse gas intensity for the four highest-emitting industries, UK, 1990 to 2024

Notes:

1. Greenhouse gas emissions intensity is calculated by dividing the level of greenhouse gas emissions by gross value added (GVA). GVA is the difference between output and intermediate consumption for any given industry. This means the difference between the value of goods and services produced (output) and the cost of raw materials and other inputs that are used up in production (intermediate consumption). GVA are chained volume measures, in constant prices with 2023 as the base year. All emissions intensity figures are calculated excluding consumer expenditure (often referred to as "households" in the article accompanying this dataset).

2. All emissions intensity figures are calculated excluding consumer expenditure, often referred to as "households".

3. "Energy" includes "Electricity, gas, steam and air conditioning supply" and "Water supply" includes "Water supply; sewerage, waste management and remediation activities".

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Direct energy use

We measure energy use using a common unit called million tonnes of oil equivalent (Mtoe). This is based on the equivalent amount of energy that would be released by burning one million tonnes of crude oil. Using this measure allows us to compare the energy released by fossil fuels (including oil, coal and gas) and renewable (including wind, wood and solar) energy sources.

The UK used 165.4 Mtoe of energy in 2024, of which 77.7% was from fossil fuels. The biggest single source was natural gas, which accounts for 45.2% of all fossil fuel use, followed by Diesel Engine Road Vehicle (DERV) fuel, then Aviation fuel.

The proportion of energy use that comes from renewable sources has increased steadily, from 0.8% in 1990 to 15.3% in 2024. The biggest source was wind, wave and tidal. That accounts for 28.4% of all renewable energy.

Figure 5: Since 1990, fossil fuel use has fallen among three out of the top four fossil fuel energy-using industries

Trend of energy use from fossil fuel sources, UK, 1990 to 2024

Notes:

1. Industry aggregations are based on the UK Standard Industrial Classification (SIC) 2007. The electricity, gas, steam and air conditioning supply industry is referred to as the energy supply sector or industry. The transport and storage industry is referred to as the transport sector or industry.

2. Direct use of energy refers to the energy content of fuel for energy at the point of use, allocated to the original purchasers and consumers of fuels. Reallocated energy consumption is where losses incurred during transformation and distribution are allocated to the final consumer of the energy rather than the electricity generation industry.

3. "Energy" includes "Electricity, gas, steam and air conditioning supply".

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4 . Environmental goods and services sector

Our UK environmental goods and services sector (EGSS) statistics measure 17 economic activities producing goods and services for environmental protection and resource management purposes. These statistics are classified as official statistics in development.

Output

The goods and services produced by the EGSS were worth £128.7 billion in 2023, up from £122.5 billion in 2022. This is known as the output of the sector and does not take into account the costs the industry incurred while producing the goods and services. For example, if a solar panel installation company charges customers £1 million for installations in a year, its annual output is £1 million.

The highest output activity was renewable energy production, valued at £36.2 billion.

Figure 6: Since 2018, renewable energy has been the largest contributor to environmental goods and services sector output

Environmental goods and services sector output, UK, 2010 to 2023

Note:

1. Environmental low emission vehicles includes "Environmental low emission vehicles, carbon capture and storage, and inspection and control".

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Gross value added

In gross value added (GVA) terms, the EGSS was worth £54.2 billion to the UK economy in 2023.

GVA is the additional value that businesses generate: their output less the costs of the goods and services they bought from other businesses.

For example, if a solar panel installation company with £1 million worth of sales (output) spent £400,000 on solar panel parts, cables and fuel for its vans, its GVA would be £600,000. This £600,000 pays for staff wages, taxes and profits.

In 2023, the EGSS made up 2.2% of total UK GVA. Production of renewable energy was the largest GVA contributor in 2023, replacing wastewater, the largest contributor between 2010 and 2022.

Employment

Figure 7: Employment across the environmental goods and services sector has continued to grow, with the smaller activities making up the “Other” category contributing to the growth

Environmental goods and services sector employment, UK, 2010 to 2023

Note:

1. Environmental low emission vehicles includes "Environmental low emission vehicles, carbon capture and storage, and inspection and control".

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The UK EGSS had an estimated 506,200 (FTE) employees in 2023, up by 3.2% from 490,300 in 2022. The waste sector made up the largest share, with 129,300 FTE, or 25.5% of the total.

For a wider measure of green jobs, please see our Estimates of green jobs, UK: March 2026 bulletin.

5 . Environmental taxes

What is an environmental tax?

Environmental taxes are charged on goods or activities that harm the environment, such as a charge per tonne of waste sent to landfill. They aim to discourage these activities and so reduce environmental damage. More information is available in our Environmental accounts on environmental taxes quality and methodology information (QMI) report.

Revenue

Between 1997 and 2025, UK environmental tax revenue has increased in current price terms, but has fallen both as a share of total tax and relative to the size of the economy. Revenue:

- increased from £24.3 billion to £54.6 billion (not adjusted for inflation)
- fell from 2.5% to 1.8% of gross domestic product (GDP)
- decreased from 8.4% to 5.1% of total taxes and social contributions

Figure 8: Environmental taxes as a percentage of GDP in 2025 are at their lowest since the start of the time series

Environmental taxes as a percentage of gross domestic product (GDP), UK and EU-27, 1997 to 2025

Notes:

1. All data are presented in current prices and not adjusted for inflation.
2. [z] = Data are not available.

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The UK had a proportion of environmental tax revenue to GDP of 1.8% in 2025. This was a decrease from 1.9% in 2024, and the lowest proportion between 1997 and 2025.

The UK proportion remains lower than the average of 27 EU member states in 2024, which was 2.2%. International comparison data can be found in our Environmental taxes dataset.

Contributions by tax

Environmental taxes are made up of three categories: energy, transport, and pollution and resources. Some of each kind of tax is paid by businesses and some by households.

The latest tax data show that in 2023, businesses paid 64.5% and households paid 34.6% of environmental taxes, with businesses and households both paying some of each category of tax.

Figure 9: Increases in energy and transport taxes offset the 40% decline in the UK Emissions Trading Scheme revenue between 2024 and 2025

Contributors to growth in environmental tax revenue by tax type, UK, 2024 and 2025

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Environmental tax revenue increased by 1.3% between 2024 and 2025. Revenue from the UK Emissions Trading Scheme declined by 40%, offset by increased revenue from Motor Vehicle Duty by household (13.6%), Contracts for Difference (20.6%), and other taxes, shown in Figure 9.

Energy taxes

Energy was the largest category of environmental taxes. Revenue was £39.4 billion in 2025.

Of this, £24.5 billion (62.1% of energy taxes) was made up of Fuel Duty on petrol, diesel and other fuels.

Transport taxes

Transport tax revenue was £13.8 billion in 2025, 25.3% of total environmental taxes, its largest share of environmental taxes since 2012.

Motor Vehicle Duty paid accounted for 65.3% of total transport tax revenue, £5.5 billion by households and £3.5 billion by businesses. Air Passenger Duty was the second-largest contribution, raising £4.4 billion (31.9%) in 2025.

Pollution and resource taxes

Pollution and resource taxes are the smallest category of environmental tax revenue. They raised £1.4 billion in 2025, around 2.5% of total environmental taxes. The largest contributors were Landfill Tax (£712 million) and Aggregates Levy (£369 million).

Household taxes

Figure 10: Average environmental taxes per household increased by 6.2% annually in 2023, but remain below pre-coronavirus (COVID-19) levels in 2019

Average environmental tax paid per household in pounds, UK, 1997 to 2023

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Overall, UK households paid 34.6% of total environmental taxes in 2023. These taxes averaged £666 per household, down from a peak of £766 per household in 2010.

In 2023, almost two-thirds of this revenue came from energy taxes (average of £412 per household) and around a third from transport taxes (average of £254 per household). Pollution and resource taxes relating to fishing licences contributed less than an average of £1.

6 . Definitions

CO2 equivalent

CO2 equivalent or CO2e is a metric measure used to compare the emissions from various greenhouse gases (GHG) on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

Current prices

Data series that represents actual prices observed in an economy during a period without adjusting for inflation. Each data point is expressed in the prices specific to the year of observation. Year-on-year changes in current prices data can result from a change in price levels or a change in the base quantity of the statistical measure.

Emissions intensity

Greenhouse gas (GHG) emissions intensity measures the level of emissions of a pollutant per unit of gross value added (GVA) and can be used to examine the relationship between economic growth and greenhouse gas emissions.

For example, a reduction in overall UK GHG emissions intensity may indicate the UK is moving towards a more environmentally sustainable economy. This could be through individual industries becoming more efficient in their processes and emitting fewer GHG emissions per unit of GVA. At the same time, it may also reflect changes to the structure of the economy, for example, a change from manufacturing to services, which produce fewer GHG emissions.

Energy use

Direct use of energy refers to the energy content of fuel for energy at the point of use, allocated to the original purchasers and consumers of fuels. Reallocated energy consumption is where losses incurred during transformation and distribution are allocated to the final consumer of the energy rather than the electricity generation industry.

Environmental goods and services sector (EGSS)

The UK environmental goods and services sector accounts follow the UN System of Environmental-Economic Accounting (SEEA) Central Framework and measure areas of the economy engaged in producing goods and services for environmental protection purposes. This includes areas of the economy engaged in conserving and maintaining natural resources as well as climate change.

Environmental protection expenditure

Environmental protection expenditure (EPE) includes all activities and actions that have as their main purpose the prevention, reduction and elimination of pollution or any other degradation of the environment. Examples of EPE include:

- managing sewage
- managing solid waste
- treatment of exhaust gases
- protection of biodiversity and natural landscapes

Environmental protection types are classified in this bulletin according to an internationally recognised categorisation scheme devised in Eurostat's Classification of Environmental Protection Activities and Expenditure (CEPA) (PDF, 360KB).

Environmental taxes

Environmental taxes are based on a physical unit that has a proven negative impact on the environment. The tax also needs to be defined as a tax and not another type of payment in the System of National and Regional Accounts (SNA 2008) (PDF, 9.1MB). These data are based on System of Environmental Economic Accounting guidance.

Greenhouse gases

The greenhouse gases (GHG) included in the atmospheric emissions accounts are those covered by the Paris Agreement, which has superseded the Kyoto Protocol:

- carbon dioxide (CO2)
- methane (CH4)
- nitrous oxide (N2O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulphur hexafluoride (SF6)
- nitrogen trifluoride (NF3)

These gases contribute directly to global warming and climate change, because of their positive radiative forcing effect. The potential of each GHG to cause global warming is assessed in relation to a given weight of CO2, so all greenhouse gas emissions are measured as carbon dioxide equivalents (CO2e).

Households

Households include "consumer expenditure" and "activities of households as employers; undifferentiated goods and services -- producing activities of households for own use" (for example, employing a cleaner and growing vegetables for your own consumption).

Residence basis

Estimates compiled on a residence basis include data relating to UK residents and UK-registered businesses, regardless of whether they are in the UK or overseas. Data relating to foreign visitors and foreign businesses in the UK are excluded. This is the same basis on which gross domestic product and gross value added are estimated, enabling them to be directly compared with emissions.

7 . Quality, methods and data sources

About the statistics

Environmental accounts on air emissions quality and methodology information (QMI)
Released: 4 July 2023 | Methodology
Quality and methodology information for air emissions in the UK Environmental Accounts, detailing the strengths and limitations of the data, methods used, and data uses and users.

Environmental accounts on the environmental goods and services sector (EGSS) quality and methodology information (QMI)
Released: 20 August 2024 | Methodology
Information for environmental goods and services sector statistics, detailing the strengths and limitations of the data, methods used and data uses and users.

Environmental accounts on environmental taxes quality and methodology information (QMI)
Released: 19 August 2024 | Methodology
Information for environmental taxes statistics, detailing the strengths and limitations of the data, methods used, and data uses and users.

Measuring UK greenhouse gas emissions
Released: 17 October 2026 | Methodology
The UK's material footprint captures the amount of domestic and foreign extraction of materials needed to produce the goods and services used by households, governments and charities in the UK.

Statistical accreditation

The Office for Statistics Regulation independently reviewed the Environmental taxes and Air Emissions estimates as accredited official statistics. They comply with the standards of trustworthiness, quality and value inthe Code of Practice for Statistics and should be labelled "accredited official statistics".

The EGSS statistics are labelled as official statistics in development. We are developing how we collect the data and produce the statistics to improve their quality.

Once we have completed the developments, we will review the statistics with the Statistics Head of Profession.

If the statistics meet trustworthiness, quality and value standards based on user feedback, we will remove the "official statistics in development" label to publish under the "official statistics" label.

If they do not meet trustworthiness, quality and value standards, we will further develop them and might stop producing them.

We will inform users of the outcome of our, and any OSR, review and any changes.

8 . Related links

Material footprint in the UK
Released: 8 May 2026 | Dataset
The UK's material footprint captures the amount of domestic and foreign extraction of materials needed to produce the goods and services used by households, governments and charities in the UK.

Material flow accounts
Released: 19 August 2025 | Dataset
Data on the UK's domestic extraction, imports and exports and flow of materials (biomass, minerals and fossil fuels), 1990 to 2023.

UK and England's carbon footprint to 2022
Released: 14 May 2025 | Article
Annual greenhouse gas and carbon dioxide emissions relating to UK and England consumption. Consumption-based emissions published by the Department for Environment, Food and Rural Affairs.

Air quality and emissions statistics
Released: 12 February 2025 | Article
This series brings together all documents relating to air quality and emissions statistics.

9 . Cite this page

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