UK Government

Energy Trends

UK, January to March 2026

About this release

Information on energy production, trade, and consumption in the UK for total energy and by specific fuels.

In this release

Data tables

Additional data are available online as part of the Energy Trends series:

Total energy
Coal and derived gases
Oil and oil products
Gas
Electricity
Renewables

This publication is based on a snapshot of survey data from energy suppliers. New data are incorporated in line with the revisions policy.

Percentage change from Quarter 1 2025, primary energy basis

(Mtoe basis)	Production	Imports	Exports	Demand
Total energy	**-4.0%**	**-2.1%**	**-4.9%**	**-1.1%**
Coal	**+20%**	**-43%**	**+44%**	**+1.0%**
Primary oil	**-7.3%**	**-1.9%**	**-10%**	**+1.1%**
Petroleum products	**-2.4%**	**-6.9%**	**-13%**	**+0.02%**
Gas	**-8.5%**	**+0.1%**	**+39%**	**-5.1%**
Electricity	**+10%**	**-3.2%**	**+45%**	**+10%**

Renewable electricity generation hit a new record of 43.7 TWh, an increase of 18 per cent on last year, and a share of 53.1 per cent of generation in the first quarter of 2026. Wind generation increased by 30 per cent to a record 29.3 TWh on the back of greater installed capacity and wind speeds increasing on last year's near record low. Wind generation provided 35.6 per cent of the total generation, outpacing the 32.3 per cent provided by gas. Solar and bioenergy generation shares were broadly unchanged on the last year.

At 63.8 per cent, low carbon generation was up 6.5 percentage points on the same period last year, with the increase in wind offsetting a 7 per cent drop in nuclear generation. Fossil fuel generation was down 16 per cent and at a share of 32.8 per cent.

UK energy production fell 4 per cent on last year, due to continued falls in oil and gas output reflecting the maturity of the basin. Output from nuclear and bioenergy also decreased but output from wind, solar and hydro increased 25 per cent to a new record high.

Final consumption was broadly stable on last year. Industrial consumption was down 4 per cent, and consumption by households up 2 per cent despite warmer weather than last year. Transport demand increased 3 per cent with increases in road and aviation fuel. Final consumption remains below pre-pandemic averages, down 7 per cent on the first quarter of 2019 with lower consumption of petroleum, gas and electricity.

Section 1: UK total energy

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Key headlines

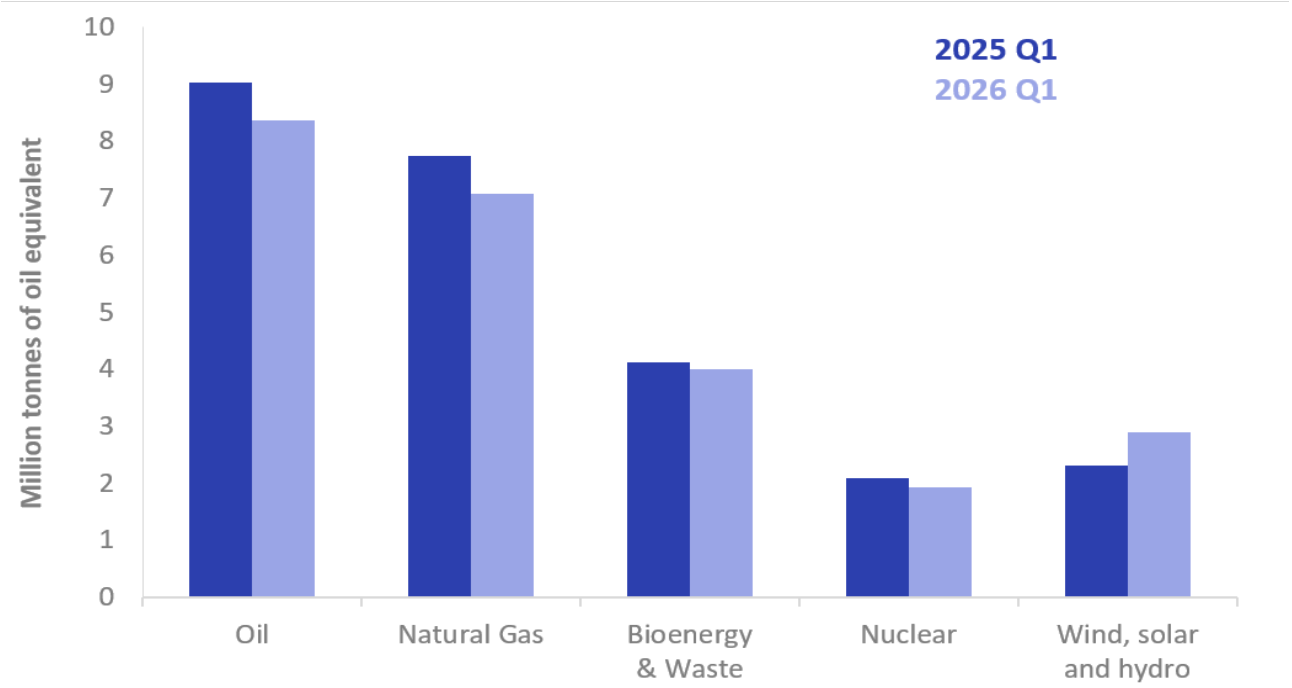
In the first quarter of 2026 **total primary energy production was 24.3 million tonnes of oil equivalent, 4.0 per cent lower** than in the first quarter of 2025 and down 27 per cent on the pre-pandemic first quarter of 2019.

Total primary energy consumption for energy uses fell by 2.0 per cent. When adjusted to take account of weather differences, primary energy consumption fell by 0.5 per cent.

Total final energy consumption (excluding non-energy use) was 0.5 per cent higher compared to the first quarter of 2025. Domestic consumption rose by 1.6 per cent and transport consumption rose by 2.9 per cent, whilst other final users consumption fell by 2.3 per cent and industrial consumption fell by 4.4 per cent. On a seasonally and temperature adjusted basis total final energy consumption was 2.4 per cent higher than in the first quarter of 2025.

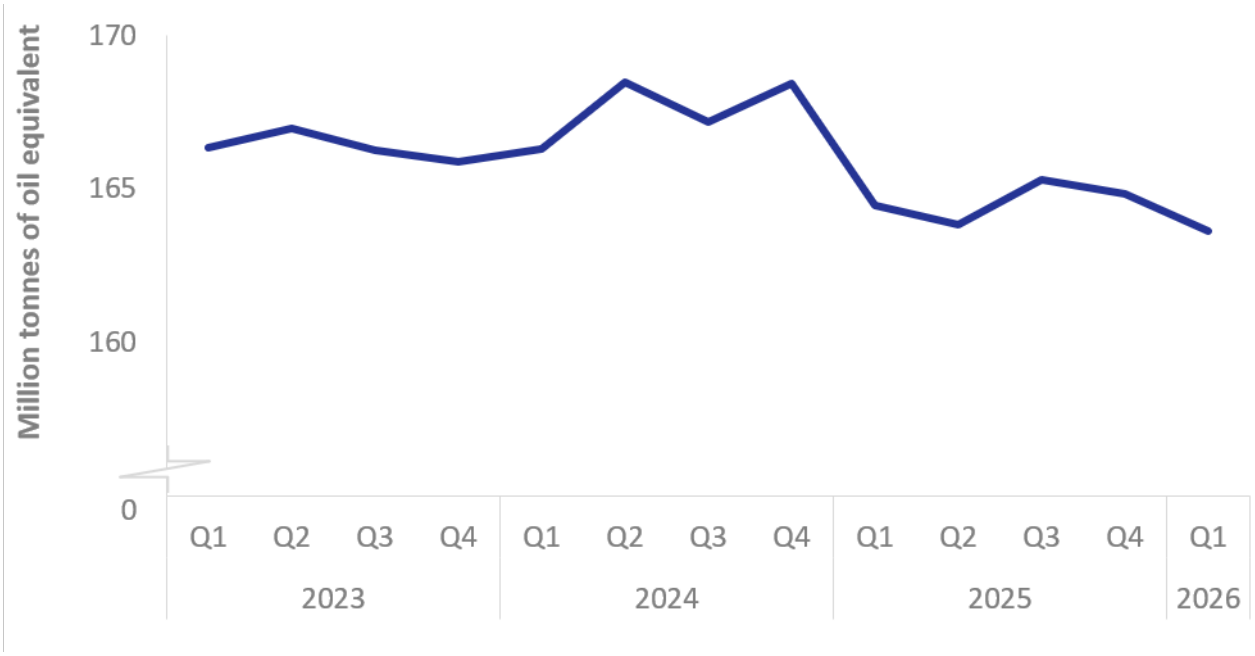
Net import dependency was 47.1 per cent in the first quarter of 2026, up 0.9 percentage points on the same quarter of 2025, whilst fossil fuel dependency was 76.6 per cent, down 1.3 percentage points on the same quarter of 2025.

Chart 1.1 UK production (Energy Trends Tables 1.1 & 1.3)



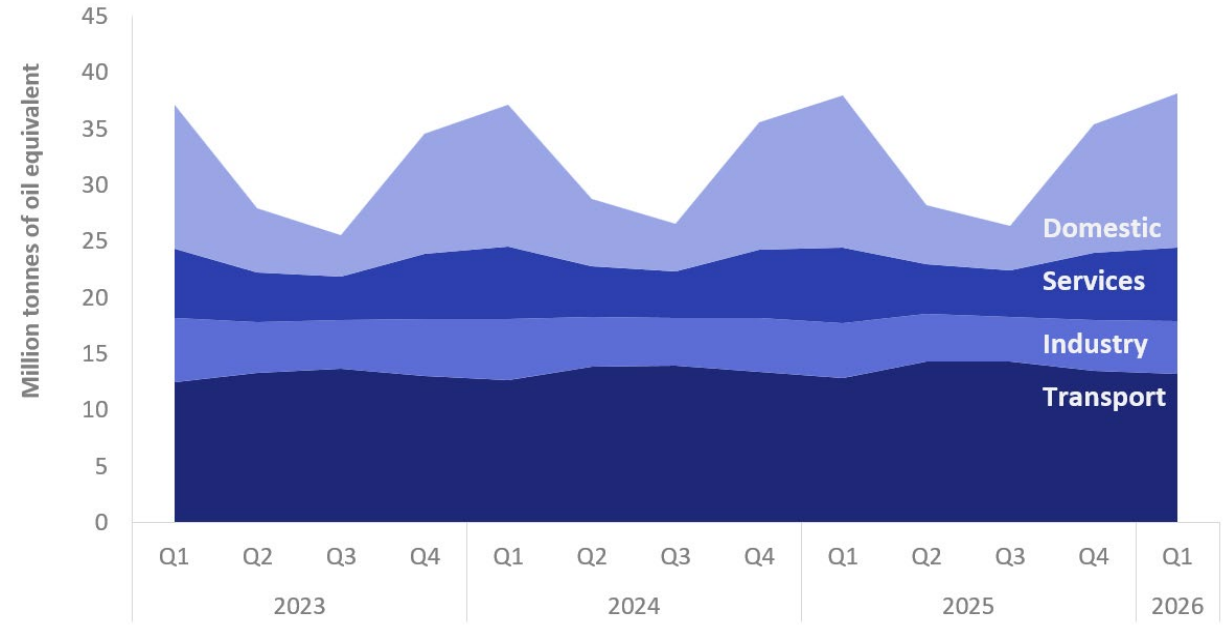
In the first quarter of 2026 **total primary energy production was 24.3 million tonnes of oil equivalent, 4.0 per cent lower** than in the first quarter of 2025.Oil production fell by 7.2 per cent and remains 45 per cent lower than pre-pandemic (2019) levels, whilst gas production fell by 8.7 per cent and remains 27 per cent lower than pre-pandemic levels; both falls are a continuation of the long-term trend of decline in production as the North Sea basin matures. Bioenergy and waste output fell by 2.9 per cent. Nuclear output fell by 7.2 per cent due to outages across the UK's nuclear fleet. Wind, solar & hydro output rose by 25 per cent due to increased capacity and more favourable weather conditions particularly for wind generation. Coal output in the UK is now de minimis due to the last large surface mine Ffos-y-Fran closing at the end of November 2023.

Chart 1.2 Total inland consumption (primary fuel input basis) (Energy Trends Table 1.2)



In the first quarter of 2026 **total inland consumption** (which includes not only fuel use by consumers, but fuel used for electricity generation and other transformation) was 163.6 million tonnes of oil equivalent, 0.5 per cent lower than in the first quarter of 2025 on a seasonally adjusted and annualised basis that removes the impact of temperature on demand.

Chart 1.3 Final energy consumption by user (Energy Trends Table 1.3)



In the first quarter of 2026 **total final energy consumption (excluding non-energy use) was 0.5 per cent higher** than in the first quarter of 2025. Domestic consumption rose by 1.6 per cent despite average temperatures being warmer compared to last year. Transport consumption rose by 2.9 per cent, whilst consumption by other final users fell by 2.3 per cent. Industrial consumption continued to decrease, falling by 4.4 per cent.

On a seasonally and temperature adjusted basis total final energy consumption was 2.4 per cent higher than in the first quarter of 2025, within which domestic consumption rose by 7.7 per cent, transport consumption rose by 1.6 per cent and services consumption rose by 0.2 per cent, whilst industrial consumption fell by 2.7 per cent.

Section 2: Coal and derived gases

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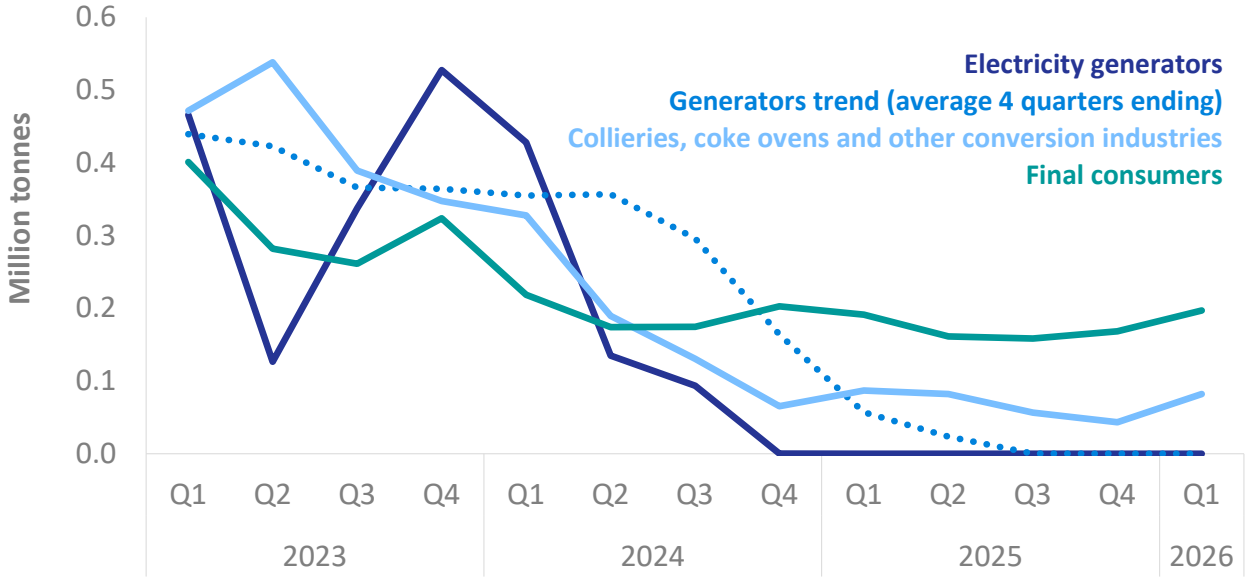
Key headlines

In the first quarter of 2026, UK coal demand fell to 279 thousand tonnes, similar to Quarter 1 2025. There was no coal-fired power station generation and there was no coke oven gas production as all coke ovens have closed.

Overall coal production for the first quarter of 2026 rose to 38 thousand tonnes, up from 32 thousand in Quarter 1 2025. This was all deep-mined coal as the last large surface mine, Ffos-Y-Fran, closed at the end of November 2023. Coal production in the UK is now a small component of the UK's total energy production.

In Quarter 1 2026, coal imports fell to 249 thousand tonnes, 42 per cent down on the same quarter last year and far below the peak of 13.4 million tonnes in the second quarter of 2013. The largest suppliers were the European Union and South Africa (28 per cent each). This was followed by Colombia (19 per cent), and the United States of America and Venezuela (13 per cent each).

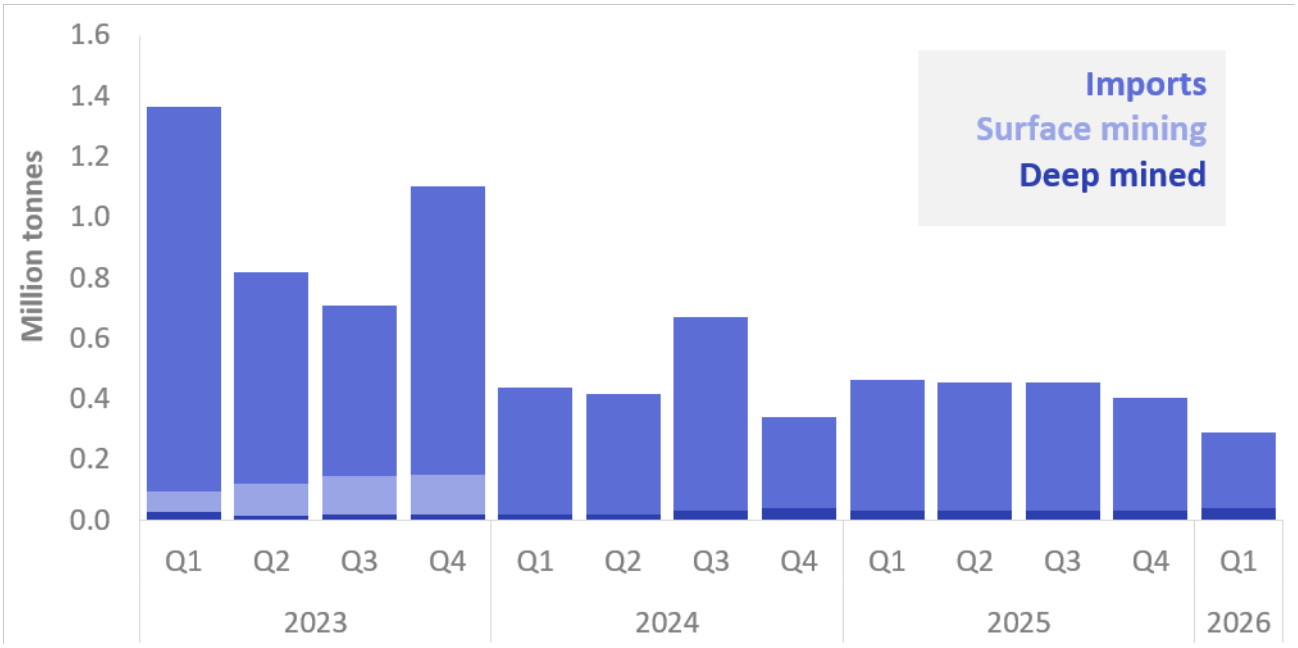
Chart 2.1 Coal Consumption (Energy Trends Table 2.1)



There was no coal-fired generation from power stations in the first quarter of 2026. The last coal-fired power plant – Ratcliffe-on-Soar – closed on 30 September 2024. Coal use has been phased out as electricity generation now favours gas, nuclear and renewables.

Domestic coal production has fallen steadily because of coal mine closures and reduced demand, but in Quarter 1 2026, UK coal production rose to 38 thousand tonnes, up 20 per cent compared to the same period last year. The longer-term trend is down, and production was only 2 per cent of the value in Quarter 4 2015 when the last large deep mines closed. The last large surface mine – Ffos-y-Fran – closed at the end of November 2023 and there is currently no surface mining in the UK.

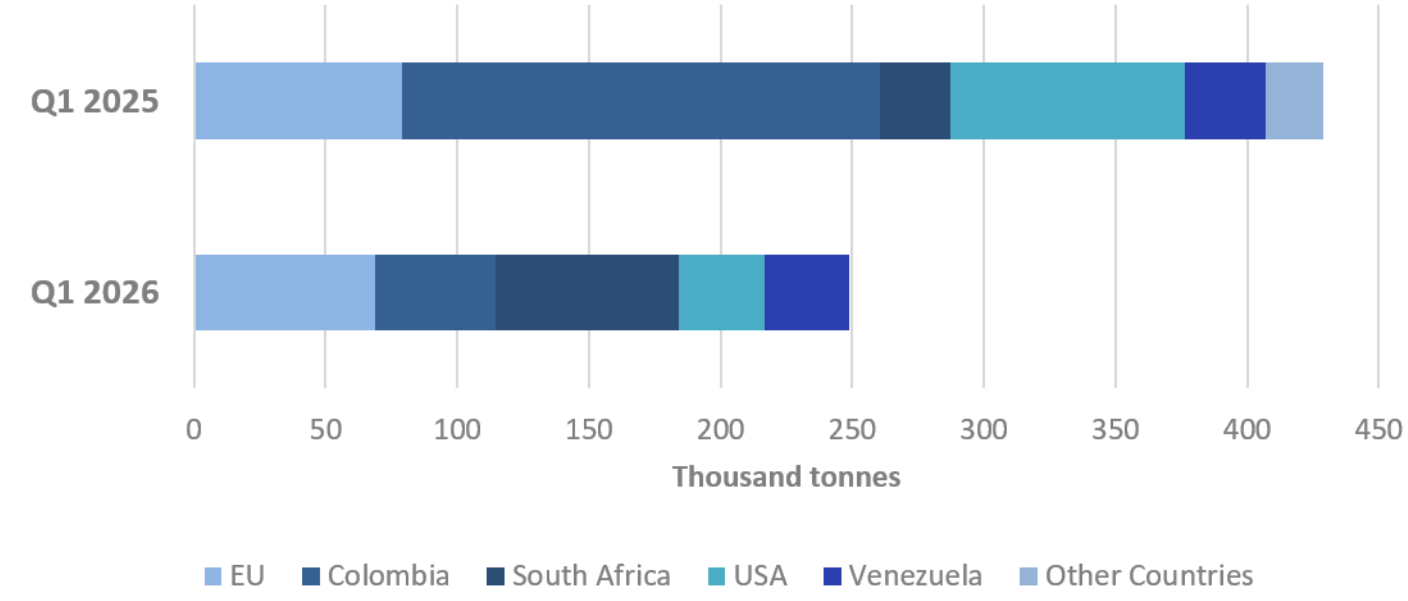
Chart 2.2 Coal Supply (Energy Trends Table 2.1)



In Quarter 1 2026, coal imports fell to 249 thousand tonnes, 42 per cent down on the same period last year. Volumes remain low by historical standards due to low demand for coal (imports peaked at 13.4 million tonnes in the second quarter of 2013). Coal imports in Quarter 1 2026 comprised 204 thousand tonnes of steam coal (82 per cent of imports), 40 thousand tonnes of coking coal (16 per cent of imports) and 5 thousand tonnes of anthracite (2 per cent of imports).

The largest suppliers of coal to the UK during Quarter 1 were the European Union and the Republic of South Africa (28 per cent each). This was followed by Colombia (19 per cent), and the United States of America and Venezuela (13 per cent each). The UK banned Russian coal imports in August 2022. This reflects a decreasing reliance on Russian energy in line with that seen for both oil and gas.

Chart 2.3 Coal Imports (Energy Trends Table 2.4)



Section 3: Oil and oil products

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Key headlines

Indigenous production of primary oils fell by 7.2 per cent in Quarter 1 2026 compared to Quarter 1 2025. Production has been trending downwards as the North Sea basin matures.

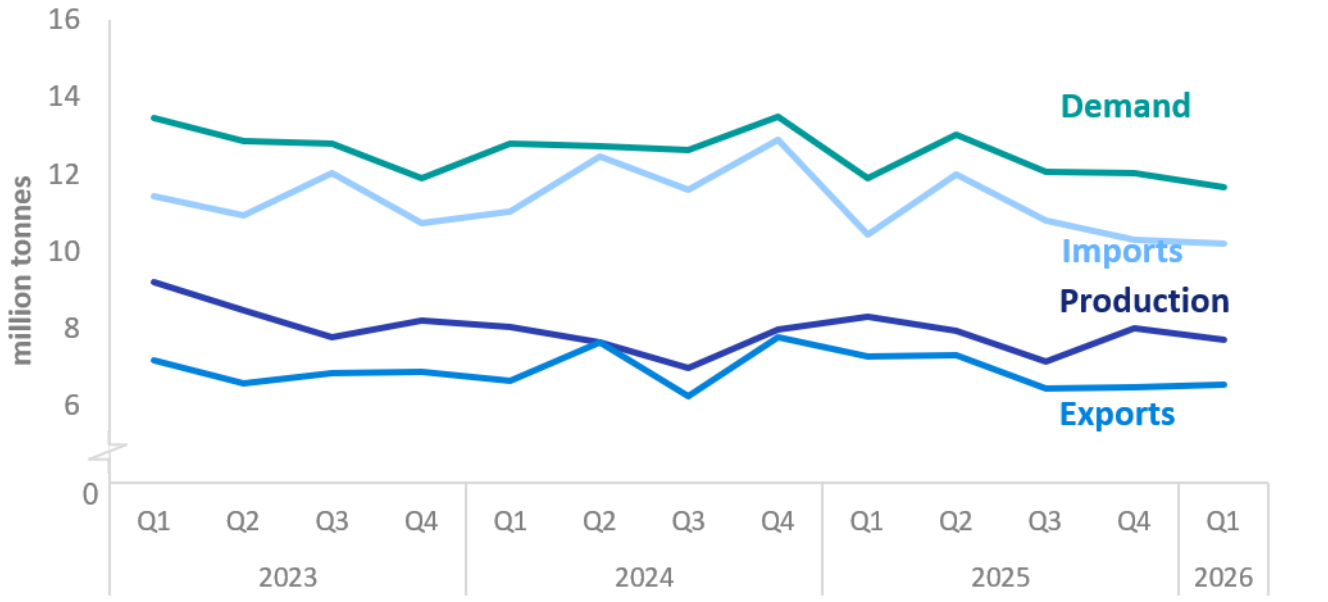
Net imports of primary oils were up 16 per cent compared to the same period in the previous year largely due to a further fall in exports line with lower production.

All three transport fuels saw increases in production with petrol up by 7.1 per cent, white diesel by 14 per cent, and jet fuel by 11 per cent. Remaining refineries have partly compensated for the closure of Grangemouth and Lindsey in 2025 by increasing production, notably of key transport fuels. Reduced exports (-13 per cent) meant more refined oil was being used domestically, leading to lower imports (-7.2 per cent) to help meet demand.

Excluding biofuels, demand for road diesel was stable while petrol was up by 1.6 per cent. Jet fuel demand was up by 2.1 per cent.

The UK held 10.2 million tonnes of oil stocks at the end of Quarter 1 2026, remaining above the IEA stocking requirement of 90 days of net imports.

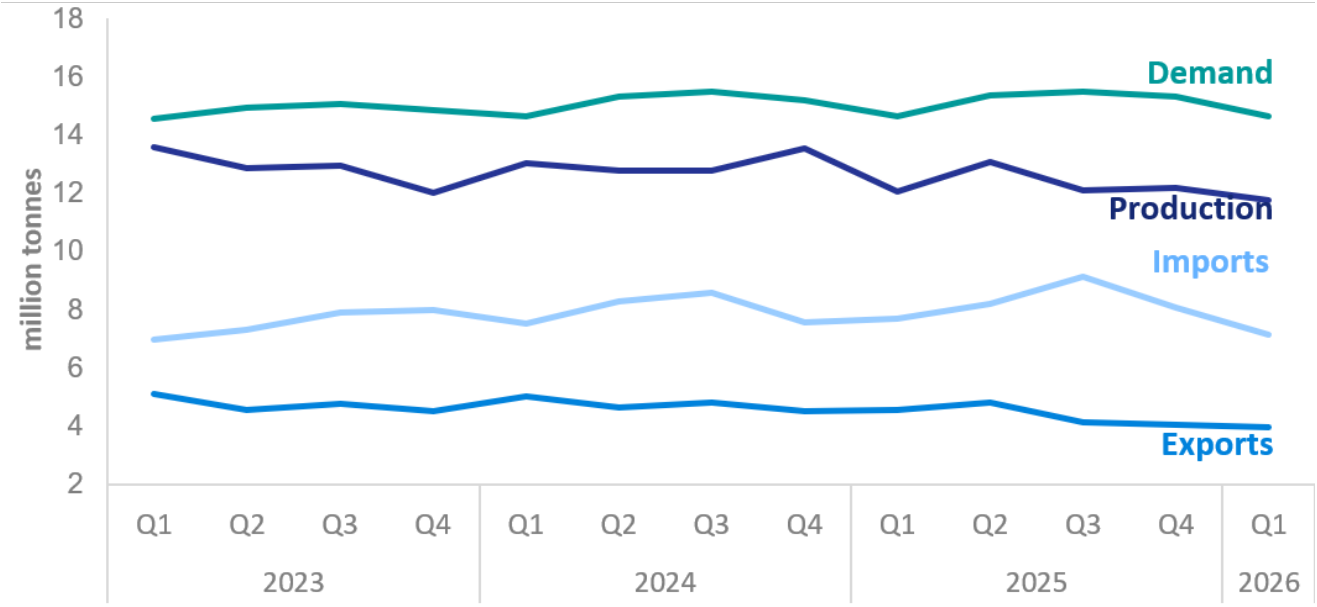
Chart 3.1 Production and trade of crude oil and NGLs (Energy Trends Table 3.1)



Production of primary oils has been trending downwards as the North Sea basin matures. In Quarter 1 2026, production at 7.7 million tonnes was 7.2 per cent lower than in the same period the previous year.

The UK continued to be a net importer of primary oils and in Quarter 1 2026 net imports of primary oils at 3.7 million tonnes, were up 16 per cent on the same period in 2025 as imports fell by 1.9 per cent while exports fell by 9.9 per cent. Over the same period refinery demand was also down slightly, by just under 2.0 per cent.

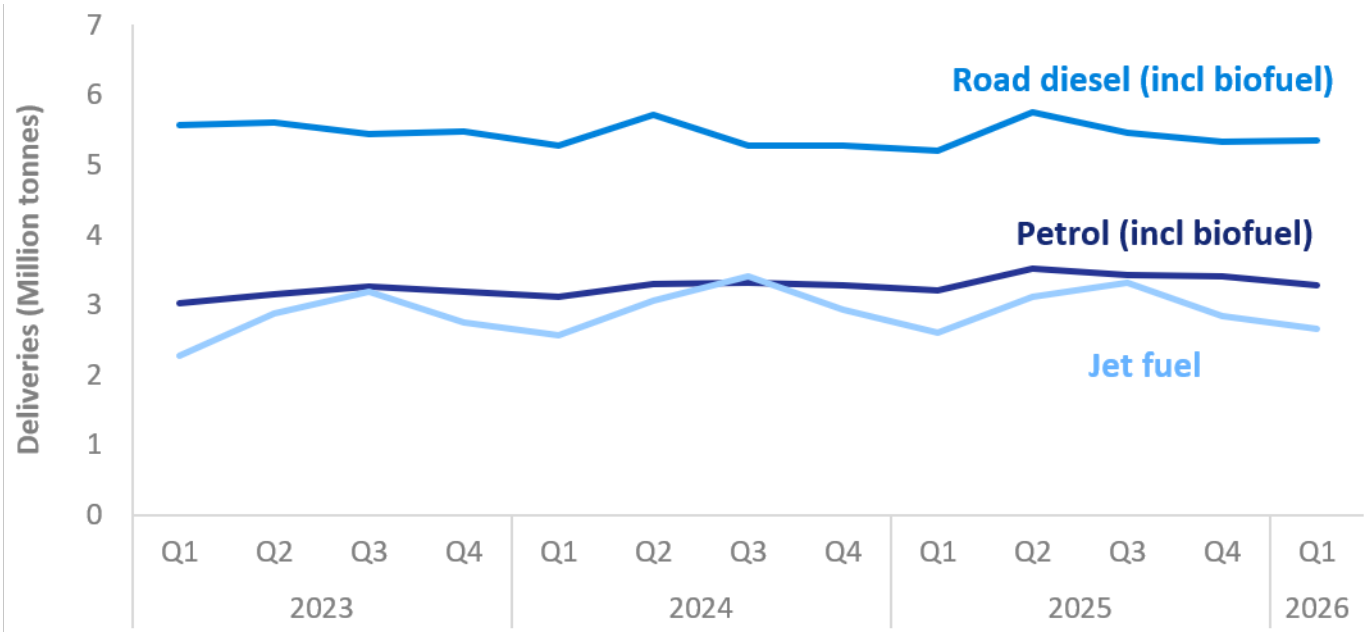
Chart 3.2 Production and trade of petroleum products (Energy Trends Table 3.2)



Total demand for petroleum products was broadly stable in Quarter 1 2026 when compared to the same period last year. In the three months to April 2026, total refinery output decreased by 0.9 per cent. Despite this, the three major fuels all saw increases. Petrol production increased by 9.4 per cent, diesel by 18 per cent, and jet fuel by almost a half following maintenance in this period last year, and operational changes in response to the Middle East conflict in March. Exports were down by 13 per cent, meaning that stable demand could be met with imports that were 7.2 per cent lower than last year. Overall net product imports increased by 1.8 per cent.

Final consumption remained stable on the year before. Warmer temperatures meant that the domestic sector, which uses oil products primarily for heating, saw a decrease of 3.0 per cent. This decrease was counterbalanced with a 0.8 per cent increase in transport demand. Diesel transport demand including biofuels increased by 2.8 per cent (although stable excluding biofuels), and petrol was up by 2.2 per cent (1.6 per cent excluding biofuels). The uptick in demand is likely due to increased buying in March following the start of the conflict in the Middle East that has affected global oil supply and prices.

Chart 3.3 Deliveries of transport fuels (Energy Trends Table 3.5)



Demand for jet fuel continues a recovery from the low caused by the COVID-19 pandemic, being up 2.1 per cent in Quarter 1 2026 compared to the same period last year, but remaining 9.0 per cent down compared to pre-pandemic Quarter 1 2019. These figures exclude Sustainable Aviation Fuel (SAF), which airlines will increase amounts of under the SAF Mandate that came into effect in January 2025: Sustainable Aviation Fuel (SAF) Mandate - GOV.UK.

Overall production was down but by only 2.5 per cent despite the closure of two refineries in 2025. The scale of the decrease has been limited by remaining refineries partly compensating for these closures by increasing production, notably of key transport fuels and since the onset of the conflict in the Middle East. In Quarter 1 2026, **all three transport fuels saw increases in production** with petrol up by 7.1 per cent, white diesel by 14 per cent, and jet fuel by 11 per cent. The overall decrease in production was caused by drops in gas oil (-14 per cent), fuel oils (39 per cent), and burning oil/other kerosene (11 per cent). Reduced exports (-13 per cent) meant more refined oil was being used domestically, leading to lower imports (-7.2 per cent) to help meet stable demand.

The UK holds emergency reserves of oil in case of a supply disruption. Through membership of the International Energy Agency (IEA) the UK is required to hold stocks equivalent to a minimum of 90 days of net imports to help protect global oil markets from supply shocks. UK government meets this by obligating major suppliers to the inland market to hold compulsory stocks.

At the end of Quarter 1 2026 **the UK held 10.2 million tonnes of stock**, 2.8 per cent lower than the previous year and more than meeting the 90-day net import requirement set by the IEA.

UK oil stocks can either be held within the UK or abroad under international agreements. The UK can also hold stock on behalf of other countries. Physical stocks held within the UK fell by 5.6 per cent at the end of Quarter 1 2026 compared with the previous year, with decreases in gas / diesel oil and refinery stocks of primary oils following the closure of the Grangemouth and Lindsey oil refineries during 2025.

Chart 3.4 Stocks of crude oil and petroleum products (Energy Trends Table 3.11)

Section 4: Gas

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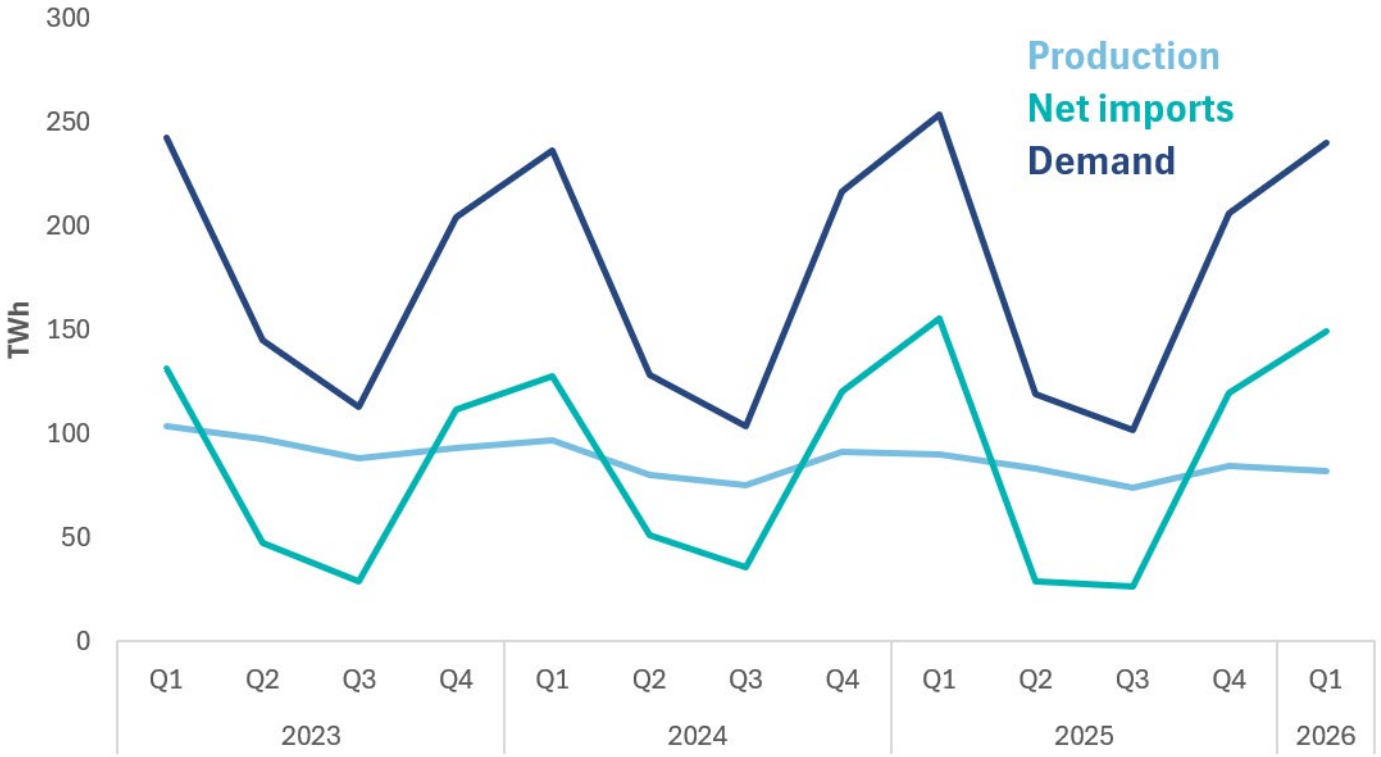
Key headlines

Gas demand decreased in Quarter 1 2026, down 5.1 per cent on Quarter 1 2025. This was driven by a substantial decrease in gas generation due in part to record generation from wind during the quarter. Gas demand by final users was stable, but with industrial and services down but domestic (household) demand increasing.

Gas production decreased by 8.5 per cent in Quarter 1 2026 as output from the mature North Sea basin continues to decline.

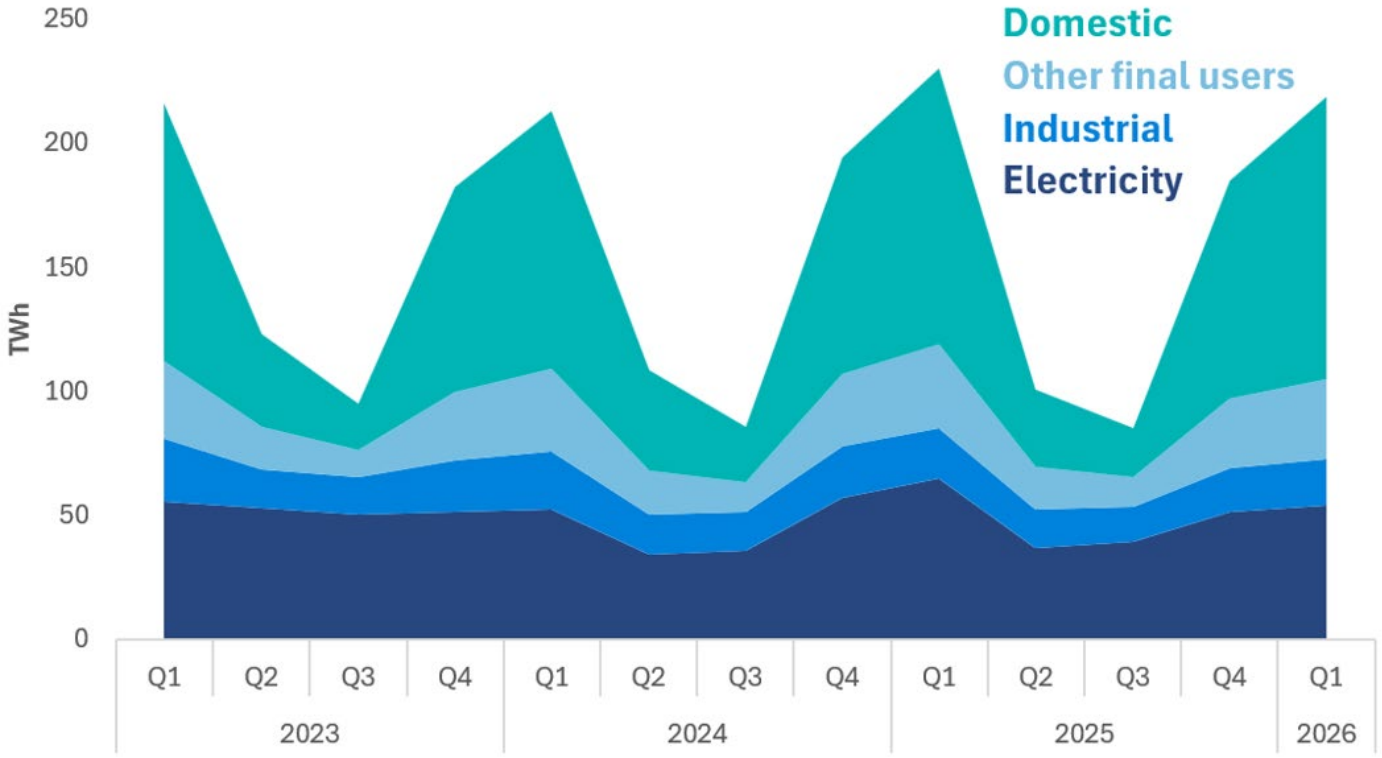
Exports increased by 39 per cent compared to Quarter 1 2025, due to increased exports to Belgium. Imports were stable in the same period, although pipeline imports fell while imports of liquified natural gas (LNG) increased.

Chart 4.1 Natural gas production, demand and imports (Energy Trends Table 4.1)



Indigenous production of natural gas decreased by 8.5 per cent in Quarter 1 2026 compared to Quarter 1 2025, reflecting the continued trend of expected natural decline. Total imports remained stable whilst exports increased by 39 per cent supported by decreased demand which fell by 5.1 per cent in the same period.

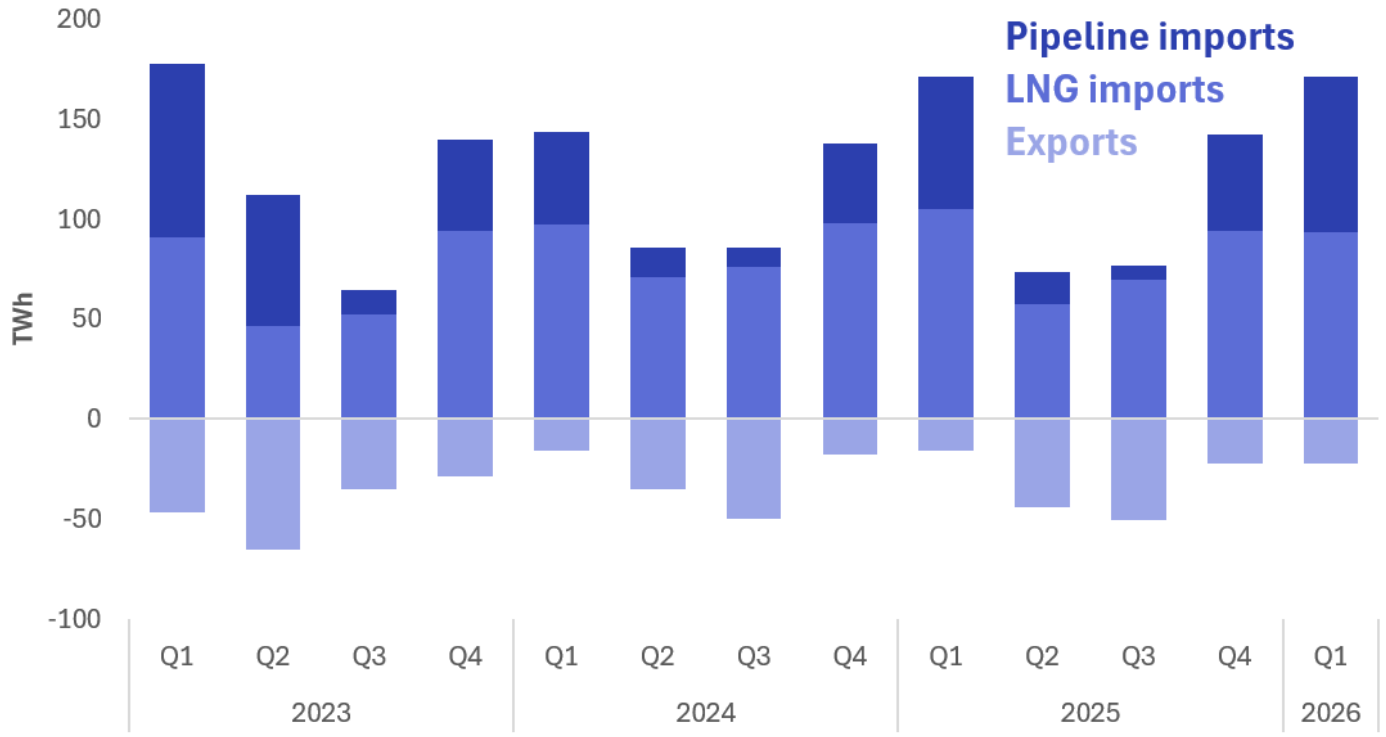
Chart 4.2 Natural gas demand (Energy Trends Table 4.1)



Gas demand decreased by 5.1 per cent in Quarter 1 2026 compared to Quarter 1 2025, driven by a 17 per cent decrease in gas used for electricity generation, due in part to record levels of wind generation displacing gas.

Gas demand by final consumers was stable in Quarter 1 2026 compared to Quarter 1 2025. Consumption by the industrial and services sectors (which includes commercial and public administration) decreased by 7.1 and 5.3 per cent respectively. Demand by domestic (household) users, which makes up the largest proportion of final consumption, increased by 2.5 per cent despite warmer temperatures this year compared with last.

Chart 4.3 UK natural gas imports by origin (Energy Trends Table 4.3)



Imports were stable in Quarter 1 2026 compared to Quarter 1 2025, whilst exports increased by 39 per cent. Although imports were stable overall, the composition changed, with imports of liquefied natural gas (LNG) up 17 per cent, while pipeline imports fell by 11 per cent.

Pipeline imports from Norway dropped by 6 per cent, although Norway remains the UK's largest source of natural gas imports, making up 54 per cent of the total. Pipeline imports from Belgium and the Netherlands fell by 88 and 82 per cent respectively, with the interconnectors largely used for exports.

The US continues to be an important source of LNG imports, increasing by 17 per cent in the same period and providing around 37 per cent of total gas imports. LNG imports from Qatar, Nigeria and Norway also increased, though these were relatively small in comparison.

Exports were up by 39 per cent in Quarter 1 2026 compared to the same period in 2025, with exports to Belgium seeing the most substantial increase.

Section 5: Electricity

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Key headlines

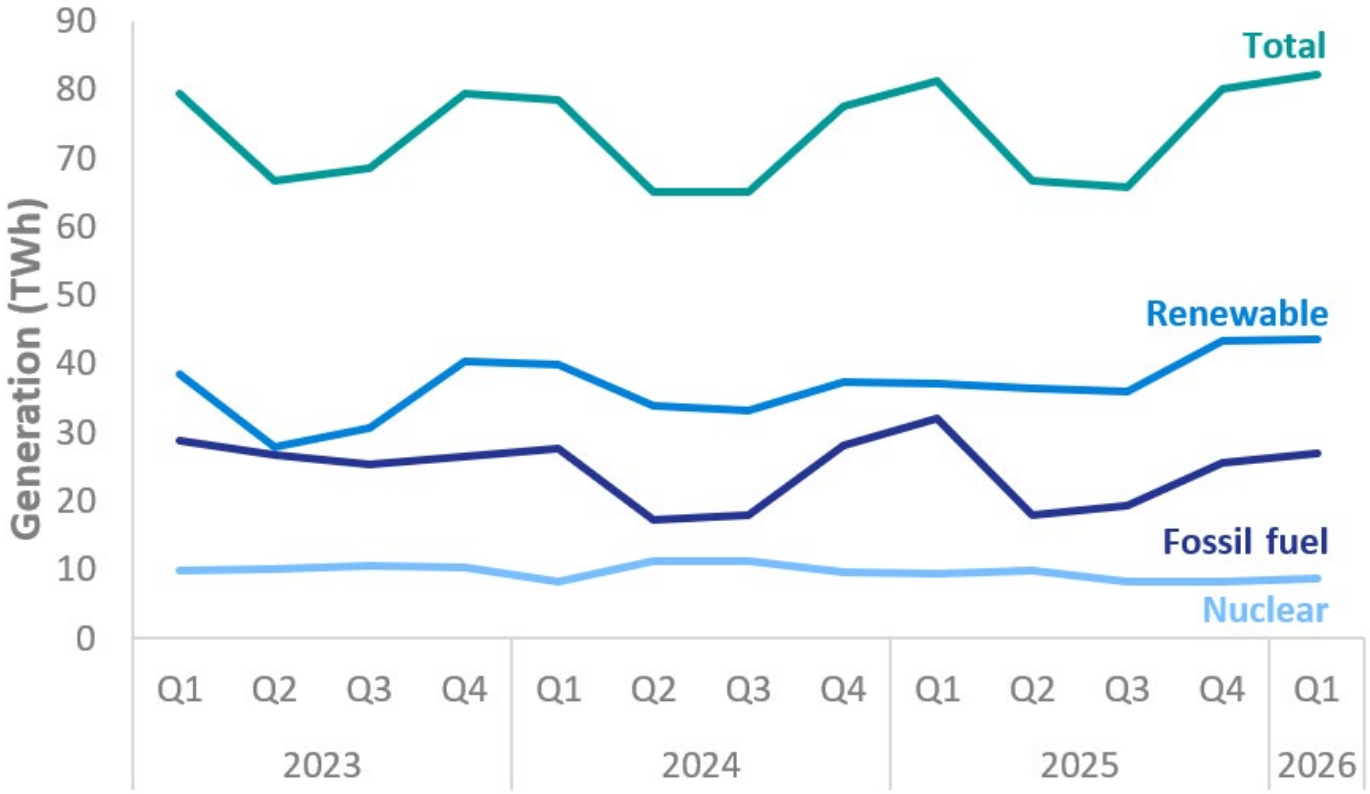
Quarter 1 of 2026 saw electricity demand fall 0.6 per cent compared to Quarter 1 2025, to 88.7 TWh. Net imports fell 21 per cent with UK-based generation rising by 1.3 per cent to 82.3 TWh to compensate. Electricity exports increased substantially in Quarter 1 2026, up 45 per cent to 4.2 TWh, the highest value since 2022.

Record wind generation in Quarter 1 of 2026 saw the share of electricity generation from renewables increase by 7.4 percentage points to 53.1 per cent, with the share of generation from fossil fuels falling to 32.8 per cent. Wind generation increased 30 per cent to a quarterly record of 29.3 following increased capacity and wind speeds recovering from a near record low in Quarter 1 2025. The record wind generation also led to an increase in the low carbon generation share to 63.8 per cent despite lower nuclear generation.

Consumption amongst final users was similar to the same period in 2025, decreasing by 0.2 per cent. There were small decreases for industrial and domestic users, down 2.9 per cent and 0.9 per cent respectively. Electricity used for road transport rose 28 per cent to 3.1 TWh as electric vehicle numbers increased.

Quarter 1 of 2026 saw generation rise by 1.3 per cent to 82.3 TWh, despite lower demand for electricity. Demand decreased 0.6 per cent to 88.7 TWh but less of the demand was met by net imports, increasing the need for UK based generation.

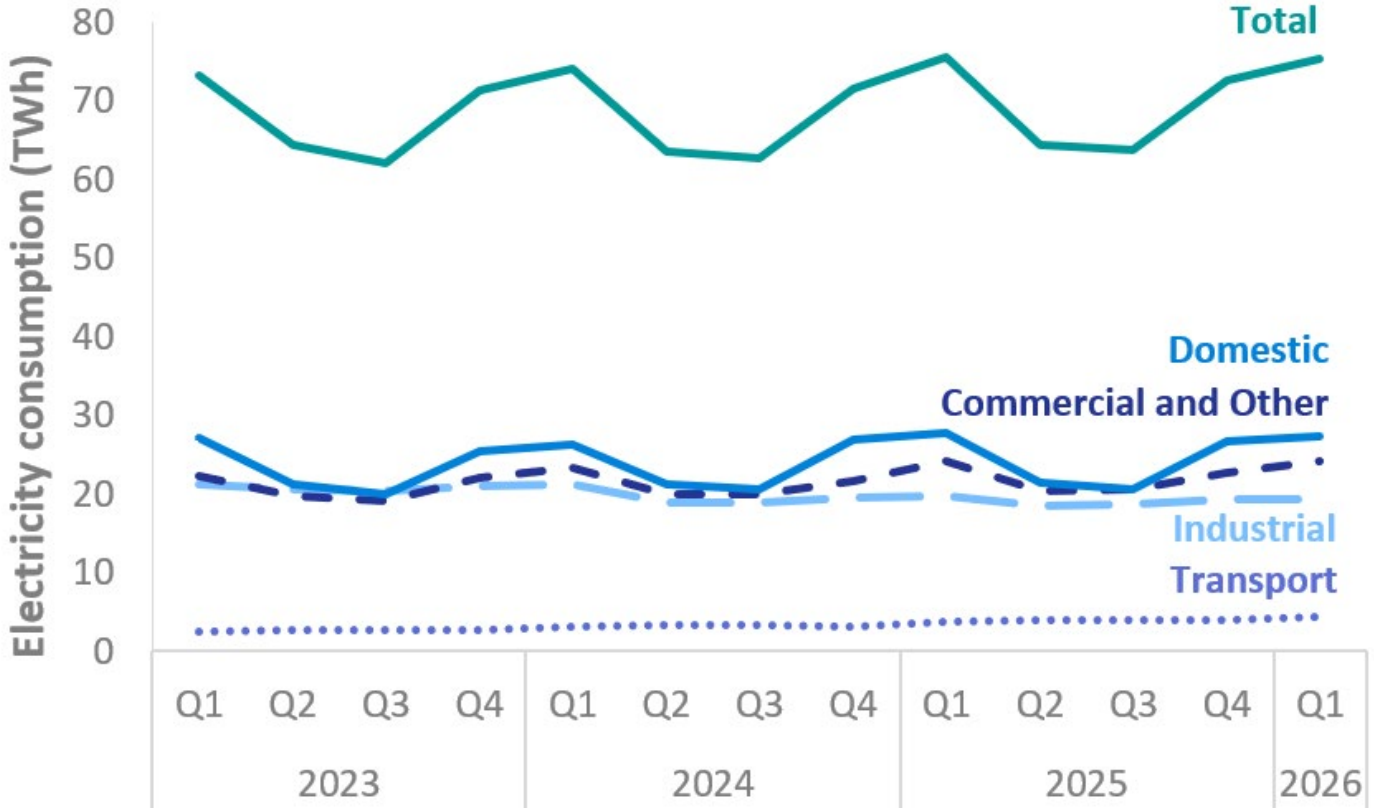
Chart 5.1 Electricity generated, by fuel type (Energy Trends Table 5.1)



Record wind generation in Quarter 1 of 2026 saw the share of electricity generation from renewables increased by 7.4 percentage points to 53.1 per cent. Total renewable generation increased by 18 per cent to 43.7 TWh, with wind generation up 30 per cent to a quarterly record of 29.3 TWh. The increased wind generation came with increased capacity as well as wind speeds recovering from a near record low last year. Solar was the only other renewable technology with an increase in generation, up 1.8 per cent to 2.7 TWh, as increased capacity offset lower-than-average daily sun hours. Despite a 7.1 per cent fall in nuclear generation to 8.8 TWh, the share of generation coming from low carbon sources rose 6.5 percentage points to 63.8 per cent due to strong output from wind.

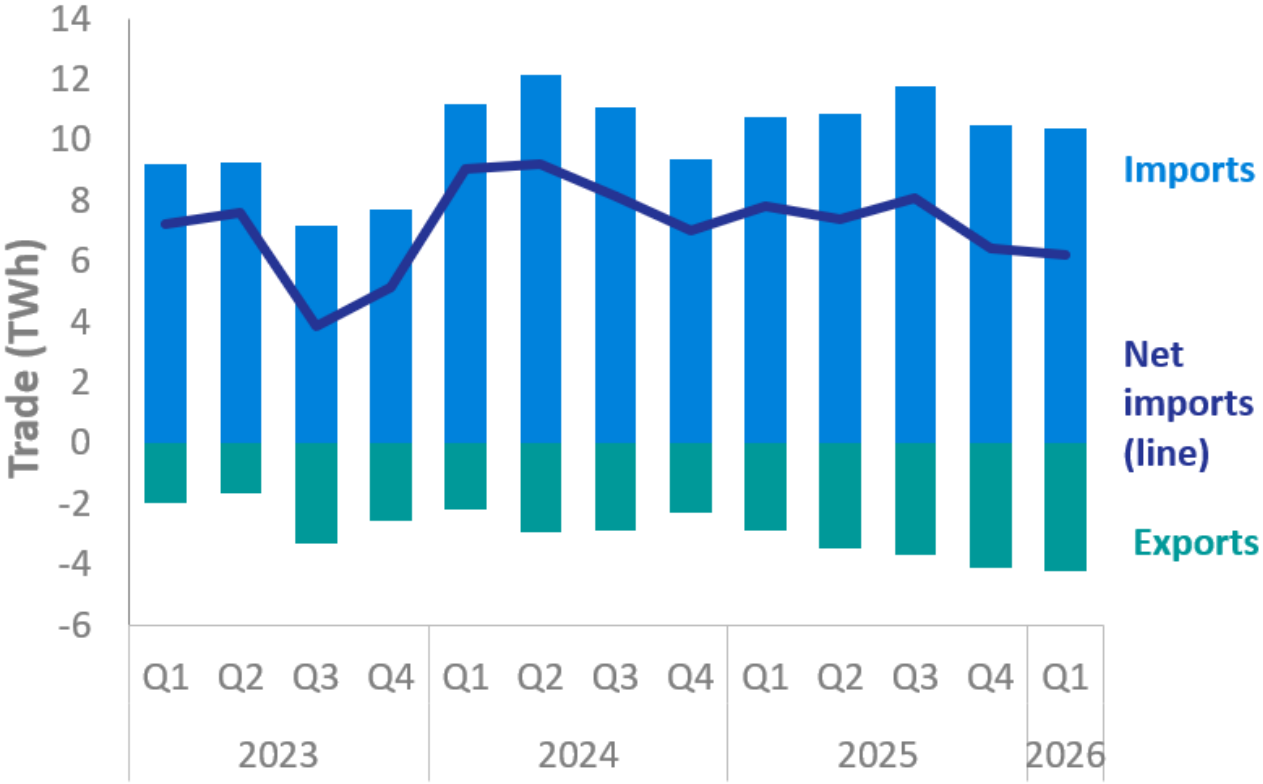
Fossil fuel generation fell 16 per cent to 27.0 TWh in Quarter 1 2026, a 32.8 per cent share. Almost all fossil generation now comes from gas, which fell by 16 per cent to 26.6 TWh, giving gas a 32.3 per cent share of total electricity generation.

Chart 5.2 Electricity consumption by sector (Energy Trends Table 5.2)



Final consumption by end users was 75.3 TWh in Quarter 1 2026, similar to the same period in 2025, with decreases in all sectors apart from transport. Domestic consumption fell by 0.9 per cent to 27.4 TWh in Quarter 1 of 2026 while total industrial consumption fell by 2.9 per cent to 19.3 TWh. Consumption by other final users was relatively similar, down 0.1 per cent to 24.2 TWh. Electricity consumption for road transport showed a large percentage increase in Quarter 1 of 2026, up by 28 per cent to 3.1 TWh.

Chart 5.3 Electricity imports and exports (Energy Trends Table 5.6)



Electricity exports increased substantially in Quarter 1 2026, up 45 per cent to 4.2 TWh, the highest value since 2022. This was the fifth successive quarter with an increase in electricity exports. Net imports were down 21 per cent as total imports decreased 3.2 per cent to 10.4 TWh.

The opening of the 500 MW Greenlink interconnector between Wales and the Republic of Ireland in January 2025 doubled interconnector capacity between the two countries, with electricity exports rising. In Quarter 1 2026 the largest percentage change in net imports came from Norway, where net imports fell 86 per cent to 0.4 TWh, driven by both a decrease in imports due to a cold Norwegian winter combined with low Norwegian hydro reservoir levels, and an increase in exports from strong UK wind generation.

Section 6: Renewables

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Key headlines

The first quarter of 2026 saw record renewable generation of 43.7 TWh, up 18 per cent on the same period last year, mainly due to increased output from wind generation. Wind generation increased by 30 per cent on the back of greater installed capacity and wind speeds increasing on last year's near record low. Output from solar and bioenergy was broadly similar to levels observed last year.

The renewable share of total electricity generation reached 53.1 per cent in Quarter 1 2026, 7.4 percentage points higher than the same period last year but down slightly from the previous quarter.

Renewable installed capacity reached 66.0 GW, up 3.4 GW (5.4 per cent) higher than in Quarter 1 2025. Solar PV accounted for 2.4 GW of the new capacity, with the rest coming from onshore wind, offshore wind and energy from waste.

Chart 6.1 Changes in renewable generation and capacity between Q1 2025 and Q1 2026 (Energy Trends Table 6.1)

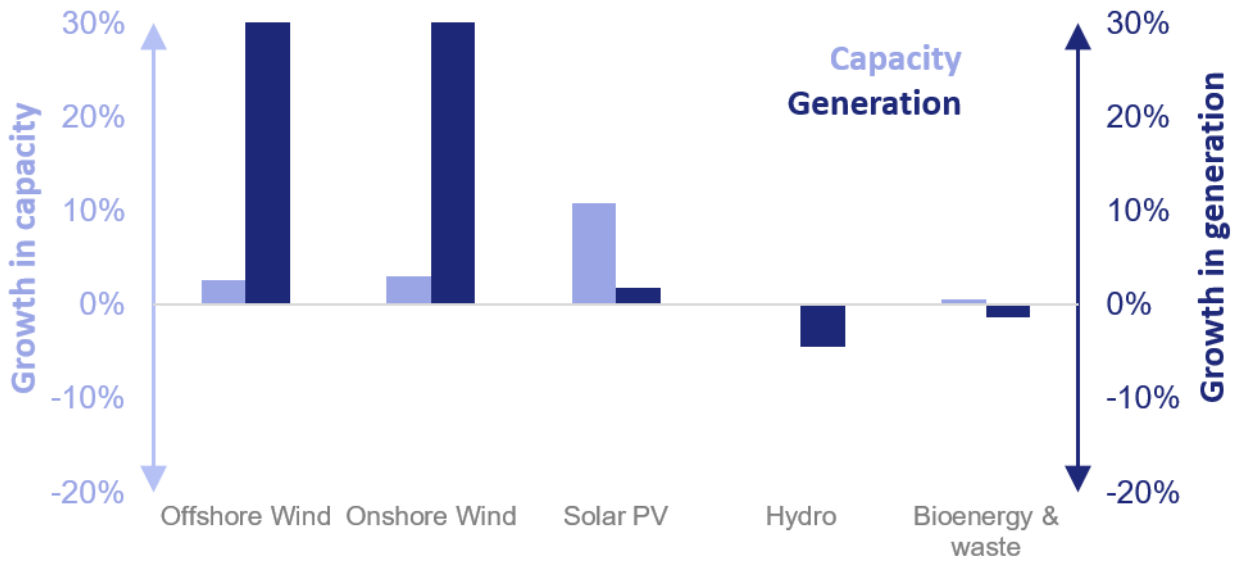


Chart 6.1 shows how each technology has contributed to the overall change in generation and capacity between Quarter 1 in 2025 and 2026. The chart shows how wind has dominated the additional generation in the latest quarter. Both onshore and offshore wind generation were up by 30 per cent on the first quarter of 2025, following near record low wind speeds last year as well as connection outages, including a fault with a subsea cable.

Despite a fall in average sun hours on last year, generation from solar PV increased by 1.8 per cent on last year, a record for the first quarter of the year. The increase was largely due to new capacity, up by 12 per cent on last year. Hydro generation fell by 4.5 per cent on last year despite an increase in rainfall on last year.

Generation from bioenergy was down by 1.4 per cent, this included modest decreases for landfill gas, sewage gas, anaerobic digestion, and plant biomass.

Chart 6.2 New capacity since 2023 for the leading renewable technologies (Energy Trends Table 6.1)

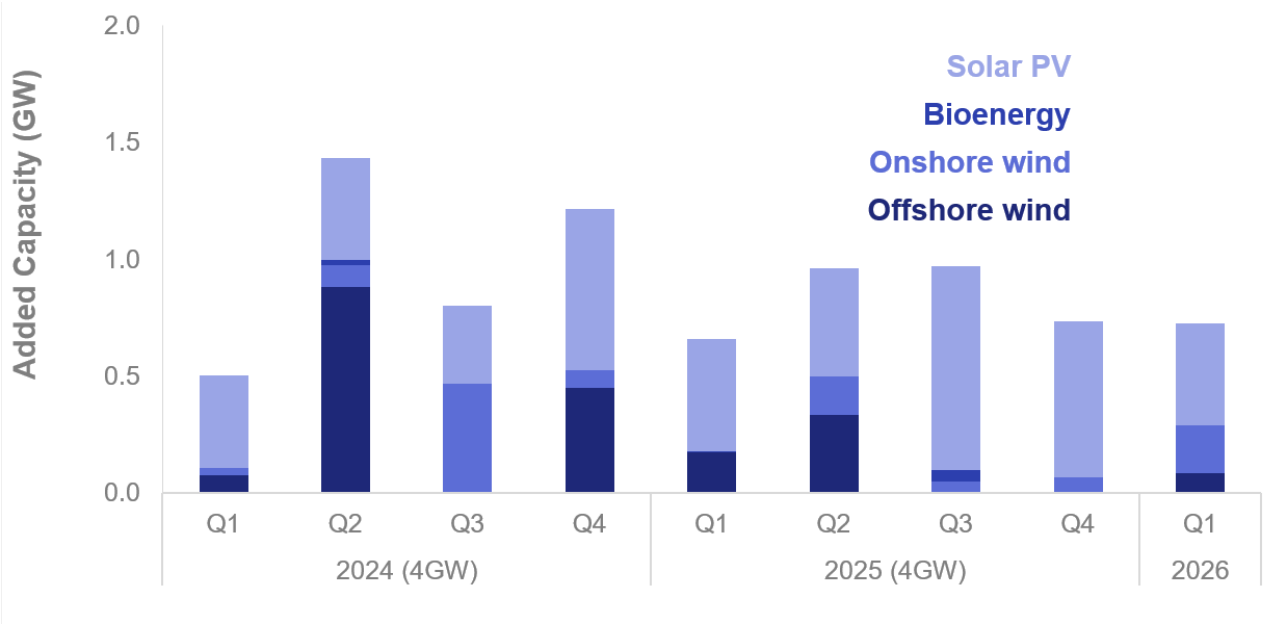
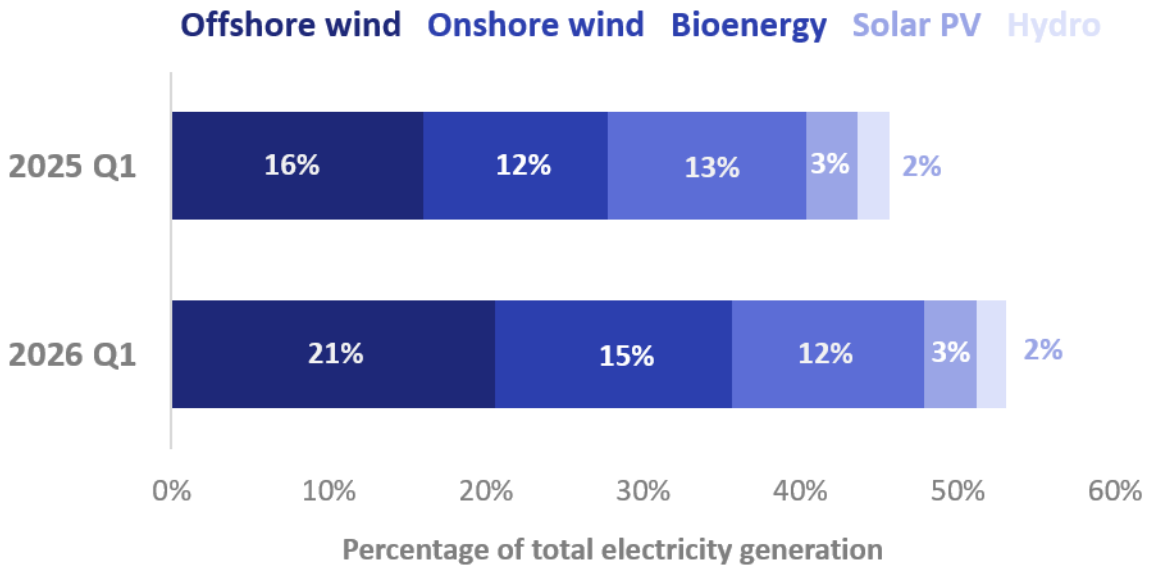


Chart 6.2 shows new capacity in each quarter since 2024. Solar PV has accounted for most of the new capacity in this timeframe with new capacity being consistently added each quarter. New capacity over the last 12 months includes Cleve Hill, the largest solar farm in the UK which was installed in the summer of 2025. In addition, there was a record number of small-scale solar installations in 2025, largely on domestic rooftops. There are now more than 2 million solar installations in the UK in total (Solar photovoltaics deployment). Additional offshore wind capacity including the first phases at Dogger Bank in 2024 and 2025 can also be seen.

Chart 6.3 Renewables' share of electricity generation – Q1 2025 and Q1 2026 (Energy Trends Table 6.1)



In Quarter 1 2026, renewables' share of total generation was 53.1 per cent. This is up 7.4 percentage points on the first quarter of 2025, driven by the increase in wind generation following near record low wind speeds in the first quarter of last year and outages including a subsea cable failure which affected offshore wind output.

Data tables and special articles

Data in this release

Data are collected by DESNZ through surveys of energy suppliers. This publication highlights key stories in energy in the UK for the specified period. Additional data are available in the quarterly and monthly statistical tables for each fuel and total energy. The tables are generally in commodity balance format, showing the flow from the sources of supply through to final use.

Statistical tables*

Data tables available as part of the Energy Trends series:

Total energy

Solid fuels and derived gases

Oil and oil products

Gas

Electricity

Renewables

The full range of special articles is available here: https://www.gov.uk/government/collections/energy-trends-articles

Special articles

Special articles that explore current topics of interest are available alongside this summary report. Included in this publication are:

Methodology changes for reporting electricity used by road vehicles

Grid-scale battery storage statistics

Data centre electricity consumption in Great Britain, 2020 to 2024

Hydrogen production and demand in the UK 2022 to 2025

Improvements to electricity supply and consumption statistics (ET 5.2)

Methodology changes sector definitions: DUKES 2026

Methodology changes to natural gas statistics: DUKES 2026

Update to transport energy intensity estimates within Energy Consumption in the UK (ECUK)

Update to estimates of industrial end use consumption within ECUK

Additional sources of information

Index of Production, published by the Office for National Statistics:
https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/indexofproduction/previousReleases

Index of Services, published by the Office for National Statistics:
https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/indexofservices/previousReleases

Detailed annual Digest of UK Energy Statistics:
http://www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

Tables showing foreign trade flows of energy:
https://www.gov.uk/government/statistics/dukes-foreign-trade-statistics

Weather tables produced by DESNZ using Met Office data:
https://www.gov.uk/government/collections/weather-statistics

Information on Energy Prices:
http://www.gov.uk/government/collections/quarterly-energy-prices

*Hyperlinks will open the most recently published table. If you require a previously published version of a table, please contact DESNZ at: energy.stats@energysecurity.gov.uk

Technical information

Methodology and revisions

More detailed notes on the methodology used to compile the figures and data sources are available on the collection pages for each fuel (see links at end of glossary). The figures have not been adjusted for temperature or seasonal factors except where noted.

Percentage changes relate to the corresponding period a year ago. They are calculated from rounded figures. They are shown as (+) or (-) when the percentage change is very large. Quarterly figures relate to calendar quarters. All figures relate to the United Kingdom unless otherwise indicated. Further information on Oil and Gas is available from the North Sea Transition Authority at https://www.nstauthority.co.uk/

Table of conversion factors

To	ktoe	TJ	GWh	million therms	To	toe	GJ	kWh	therms
From	Multiply by				**From**	Multiply by			
ktoe	1	41.868	11.63	0.39683	**toe**	1	41.868	11,630	396.83
TJ	0.023885	1	0.27778	0.0094778	**GJ**	0.023885	1	277.78	9.4778
GWh	0.085985	3.6	1	0.034121	**kWh**	0.000085985	0.0036	1	0.034121
million therms	2.52	105.51	29.307	1	**therms**	0.00252	0.10551	29.307	1

ktoe = thousand tonne of oil equivalent toe = tonne of oil equivalent

Sector breakdowns

Categories for final users are defined by Standard Industrial Classification 2007:

Fuel producers	05-07, 09, 19, 24.46, 35
Final consumers	
Iron and steel	24 (excluding 24.4, 24.53 and 24.54)
Other industry	08, 10-18, 20-23, 24.4 (excluding 24.46), 24.53, 24.54, 25-33, 36-39, 41-43
Transport	49-51 (part*)
Other final users	
Agriculture	01-03
Commercial	45-47, 52-53, 55-56, 58-66, 68-75, 77-82
Public administration	84-88
Other services	90-99
Domestic	Not covered

* Note – transport sector includes only energy used for motion/traction purposes. Other energy used by transport companies is classified to the commercial sector.

Revisions policy

Figures for the latest periods are provisional and are liable to subsequent revision. The DESNZ statistical revisions policy sets out the revisions policy for these statistics, which has been developed in accordance with the UK Statistics Authority Code of Practice for Statistics.

Glossary

Tonne of Oil Equivalent

A common unit of measurement which enables different fuels to be compared and aggregated, and equal to 41.868 gigajoules. Usually expressed in Trends as ktoe (Thousand tonnes of oil equivalent) or Mtoe (Million tonnes of oil equivalent).

Indigenous production

The extraction or capture of primary fuels: for oil this includes production from the UK Continental Shelf, both onshore and offshore. Production by fuel is shown in Table 1.1. As with all data in Tables 1.1 to 1.3, these data are presented in either Million tonnes of oil equivalent or Thousand tonnes of oil equivalent. Various conventions are involved in the presentation of these data (e.g. for nuclear production the energy input is the heat content of the steam leaving the reactor) and these conventions are detailed in the Table notes, the energy balance methodology note and methodology notes for individual fuels (see links at end of glossary).

Primary supply

Primary supply is the sum of production, other sources, imports (+), exports (-), stock change, marine bunkers and transfers. A breakdown of supply by fuel is shown in Table 1.3.

Primary demand

Primary demand is the sum of the transformation, energy industry use, losses and final energy consumption by the industry sectors including non-energy use. A breakdown of demand by fuel is shown in Table 1.3.

Primary inland energy consumption

The sum of primary supply less non-energy use (Table 1.2).

Final energy consumption

Energy consumption by final user, i.e., which is not being used for transformation into other forms of energy. Final energy consumption is shown by sector and for individual fuels in Table 1.3.

Non-energy use

Includes fuel used for chemical feedstock, solvents, lubricants, and road making material, see Table 3.2.

Imports

Goods entering the UK, e.g. via pipeline from Norway or LNG cargoes from Qatar and the US for gas (Table 4.3) and interconnectors for electricity from The Netherlands (Table 5.6).

Exports

Goods leaving the UK, e.g. via LNG regassification cargoes to Europe for gas (Table 4.4) and interconnectors for electricity to France (Table 5.6).

Transformation

Transformation covers those activities that transform fuels into a form which is better suited for specific uses. Most of the transformation activities correspond to particular energy industries whose main business is to manufacture the product associated with them. Certain activities involve transformation to make products that are only partly used for energy needs (e.g. coke and oven coke) or are by-products of other manufacturing processes (e.g. coke oven and blast furnace gases). A breakdown of transformation by fuel is shown in Table 1.3.

Seasonally and temperature adjustment

The temperature corrected series of total inland fuel consumption, Table 1.2 indicates what annual consumption might have been if the average temperature during the year had been the same as the average for the years 1991 to 2020. Table 1.3 shows seasonal and temperature adjusted final consumption.

Primary oil

Crude oil, natural gas liquids and feedstocks. (Table 3.1)

Petroleum products

Motor spirit, diesel, gas oil, aviation turbine fuel, fuel oils, petroleum gases, burning oil and other products. (Table 3.4)

Transport fuels

Motor spirit and diesel for road and aviation turbine fuel for aviation. (Table 3.4)

Electricity generation

Electricity generation represents the quantities of fuels burned for the generation of electricity. The activity is divided into two parts, covering the Major Power Producers such as those generating electricity for sale, as their main business activity, and autogenerators such as those generating electricity for their own needs but who may also sell surplus quantities (Table 5.1).

Fossil fuels

Coal, oil and natural gas. The percentage share of electricity generation by fossil fuels is shown in Table 5.1.

Renewables

Renewable energy includes solar power, wind, wave, tidal, hydroelectricity, and bioenergy. Solid biomass includes wood and wood pellets, straw, short rotation coppice, and the biodegradable component of wastes (the non-biodegradable component is shown as a memo item in Table 6.1). Liquid biofuels include bio diesel and bioethanol, along with new and emerging fuels such as bio LPG (liquified petroleum gas). Biogases include landfill gas, sewage gas, and anaerobic digestion. The percentage share of electricity generation by renewables is shown in Table 5.1.

Low carbon

Nuclear and renewables. The percentage share of electricity generation by low carbon sources is shown in Table 5.1.

Additional information

A more detailed glossary is available in The Digest of United Kingdom Energy Statistics (DUKES), Annex B, whilst the energy balance methodology note provides background detail on the compilation of an energy balance, as well as an explanation of each of the key energy balance flows. Notes in individual Energy Trends tables and individual fuel methodology notes (see links below) provide further detail.

Coal methodology note

Oil methodology note

Gas methodology note

Electricity methodology note

Renewables methodology note

Related publications

Recent publications of interest

Energy Consumption in the United Kingdom (ECUK)
Detailed data on end use estimates of energy in the UK: www.gov.uk/government/collections/energy-consumption-in-the-uk

Sub-national total final energy consumption
Findings of the sub–national energy consumption analysis in the UK for all fuels, for the period covering 1 January to 31 December, with gas consumption covering the annual period from mid-May: www.gov.uk/government/collections/total-final-energy-consumption-at-sub-national-level

Sub-national electricity consumption
Electricity consumption by consuming sector for Great Britain and devolved administration areas. Data are based on the aggregation of Meter Point Administration Number readings as part of DESNZ's annual meter point electricity data exercise: www.gov.uk/government/collections/sub-national-electricity-consumption-data.

Sub-national gas consumption
Gas consumption by consuming sector for Great Britain, and devolved administration areas. Data are based on the aggregation of Meter Point Reference Number readings throughout Great Britain as part of DESNZ's annual meter point gas data exercise. Data are subject to a weather correction factor to enable comparison of gas use over time: www.gov.uk/government/collections/sub-national-gas-consumption-data.

Sub-national road transport consumption
Road transport fuels consumption in the UK at regional and local authority level. Data is modelled and provided to DESNZ by Ricardo Energy & Environment, with estimates based on where the fuel is consumed, rather than where it is purchased.
www.gov.uk/government/collections/road-transport-consumption-at-regional-and-local-level

Sub-national consumption of residual fuels
Non-gas, non-electricity and non-road transport fuels consumption in the UK. Includes coal, petroleum, solid fuels, and bioenergy not for generation or road use: www.gov.uk/government/collections/sub-national-consumption-of-other-fuels

Further information

Accredited official statistics

These statistics are accredited official statistics. Accredited official statistics are called National Statistics in the Statistics and Registration Service Act 2007.

These accredited official statistics were independently reviewed by the Office for Statistics Regulation (OSR) in June 2014. They comply with the standards of trustworthiness, quality and value in the Code of Practice for Statistics.

Our statistical practice is regulated by the Office for Statistics Regulation.

OSR sets the standards of trustworthiness, quality and value in the Code of Practice for Statistics that all producers of official statistics should adhere to.

You are welcome to contact us by emailing energy.stats@energysecurity.gov.uk with any comments about how we meet these standards.

Alternatively, you can contact OSR by emailing regulation@statistics.gov.uk or via the OSR website.

Pre-release

Some ministers and officials receive access to these statistics up to 24 hours before release. Details of the arrangements for doing this and a list of the ministers and officials that receive pre-release access to these statistics can be found in the DESNZ statement of compliance with the Pre-Release Access to Official Statistics Order 2008.

User engagement

Users are encouraged to provide comments and feedback on how these statistics are used and how well they meet user needs. Comments on any issues relating to this statistical release are welcomed.

This publication is available from: https://www.gov.uk/government/collections/energy-trends

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Methodology changes for reporting electricity used by road vehicles

Vanessa Martin **0776 757 3907** electricitystatistics@energysecurity.gov.uk

Key headlines

This article explains methodology changes for reporting electricity used by road vehicles. Data on road vehicles use are reported quarterly in Energy Trends 5.2 and annually in the Digest of UK Energy Statistics (DUKES) Tables 5.1 and 5.2 as well as informing other statistics and publications within the department. These changes affect the data in all these publications.

The key changes are:

- Updated sector level assumptions which are used to avoid double counting transport use.
- Updated all data used in calculations to the latest information published by the Department for Transport.
- Added in consumption by electric buses and potential to include electric HGVs.
- Separating quarterly transport into road and rail, to give more visibility of the growth in electric vehicle consumption.
- Updating road consumption on a quarterly basis rather than relying on annual estimates.

Background

This article reports on changes to our calculations of electricity road vehicles. These changes have been made to ensure that the modelled data is as accurate as possible, particularly in this fast-growing sector.

While most electricity consumption data in our statistics comes from electricity suppliers' segmentation of their customers, we cannot report on electric vehicle consumption in this way. An electricity supplier can tell us their monthly sales to the domestic market, but not (in most cases) how much of the electricity went into an electric vehicle. As a result, electric vehicle consumption is modelled and then deducted from the suppliers' sectoral data.

Electricity used for electric road vehicles is based on data and models from the Department for Transport (DfT). The total vehicle miles for cars and light commercial vehicles are taken from table TRA0101 and multiplied by assumptions from DfT's TAG data book for the proportion of vehicle miles that were electric and the consumption of electricity per vehicle mile. We report the estimated electricity consumption from electric vehicles in the transport rows of Energy Trends and DUKES tables and deduct the same amount from the domestic and commercial rows to avoid double counting.

What has changed

Updated sectoral assumptions

As detailed above, it is necessary to deduct the modelled electric road vehicles data from domestic and commercial consumption as reported by electricity suppliers. This is done to avoid double counting of electricity consumption based on an assumption about where electric vehicles are charged. The previous split was 90 per cent domestic, 10 per cent commercial, which was taken from internal department. With the addition of electric buses (detailed below) and the changing usage of electric road vehicles it was necessary to review this assumption.

The new split assumes that 66 per cent of electric vehicle consumption is domestic and 34 per cent commercial. This is consistent with assumptions used in department models including UK TIMES and is supported by external research including the National Energy Systems Operator Future Energy Scenarios.

Updated Department for Transport (DfT) assumptions

The modelled consumption by electric road vehicles comes from assumptions published in the DfT's TAG data book (TAG data book - GOV.UK). As part of the regular DUKES publication cycle, we have updated these to the latest published version.

As part of the latest updates, DfT reduced the proportion of car kilometres that are electric, which is a key component of our consumption model. This was due to updated assumptions about the role of Plug In Hybrid Vehicles (PHEV) and the proportion of PHEV journeys in hybrid mode, as detailed in this publication by DfT.

Electric buses and Heavy Goods Vehicles (HGVs)

Electric buses have been added to the total electricity by road vehicles. We have used the same methodology to model the data for consumption by electric buses and coaches, based on the assumptions for 'Public Service Vehicles' in the TAG data book. As with cars and LGVs, the average annual kilometres travelled from table TRA0101 is multiplied by the proportion of kilometres that are electric and the average consumption per kilometre. Electric bus consumption will add around 300 GWh to the 2024 road vehicle consumption, less than the amount it has reduced by because of the updates to the TAG data book assumptions.

The TAG data book currently does not include any assumptions for electric HGVs, so to maintain consistency they are also excluded from our reporting. Our modelling is set up so that if or when the TAG data book assumptions change, we would start to include these vehicles in our road consumption data. Vehicle licensing statistics (VEH 1103) show 1,500 electric HGVs registered as at the end of 2025 so their consumption is assumed to be a small fraction of the overall electricity balance.

Separate quarterly reporting of road and rail and quarterly road updates

Prior to these updates, Energy Trends Table 5.2 reported quarterly transport data as a single combined category for road and rail use. It was also only updated annually as part of the DUKES update process, with quarterly data assumed to be the annual total divided by 4 and set to match the previous year until DUKES was published. With the growth in electric vehicles, this was no longer detailed enough to show the changes.

As of the June 2026 publication, Energy Trends Table 5.2 includes a separate row for road and rail consumption. We will also model the road consumption data on a quarterly basis to give more timely information about electric vehicle use. The modelling process will be the same as for the annual value, but with quarterly estimates for average distance travelled taken from table TRA 2501 (Quarterly traffic estimates (TRA25) - GOV.UK). This table does not split buses/coaches from other vehicles, so the annual proportion is used to estimate the split.

Feedback

We welcome any comments on these methodology changes. Please send these to electricitystatistics@energysecurity.gov.uk.

This publication is available from: https://www.gov.uk/government/collections/energy-trends

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Grid-scale battery storage statistics

Will York **0785 693 3811** electricitystatistics@energysecurity.gov.uk

Key headlines

- UK grid-scale battery storage power capacity reached 7.5 GW in 2025, with a record 2.3 GW energised in 2025 alone.
- Output from Great Britain's grid-scale batteries totalled 2.3 TWh in 2025, with an 85 per cent average efficiency over the year.
- England accounted for 74 per cent of GB battery output in 2025, with Scotland at 24 per cent and Wales at 2.1 per cent.
- Methodological changes and revisions to the input, output and power capacity time series

Background

Grid-scale battery storage sites provide short-term, flexible energy storage and can help keep the grid frequency stable. They are particularly useful in storing excess electricity from renewable sources, reducing curtailment costs. The first major grid-scale battery storage project in the UK became operational in 2017. Since then, capacity has grown rapidly, with the total annual electricity output from batteries rising from 0.5 GWh in 2017 to almost 2,300 GWh in 2025.

Statistics on battery storage were first published in the Digest of UK Energy Statistics (DUKES) in 2024. This article outlines the methodological changes adopted for DUKES 2026 and revisions made to statistics. We are continuing to seek improvements to the methodology and data sources and welcome any feedback users may have.

This article is concerned with grid-scale batteries only, which in this article are also referred to as 'batteries' or BESS (Battery Energy Storage Systems). By grid-scale batteries, we mean commercial-scale, metered assets which typically have power capacities upwards of 5 MW. Batteries outside of this include 'behind-the-meter' batteries, such as batteries co-located with domestic rooftop solar panels. Data monitoring of the installation of domestic batteries recorded on the Microgeneration Certification Scheme (MCS), including capacity and cost statistics, can be found here.

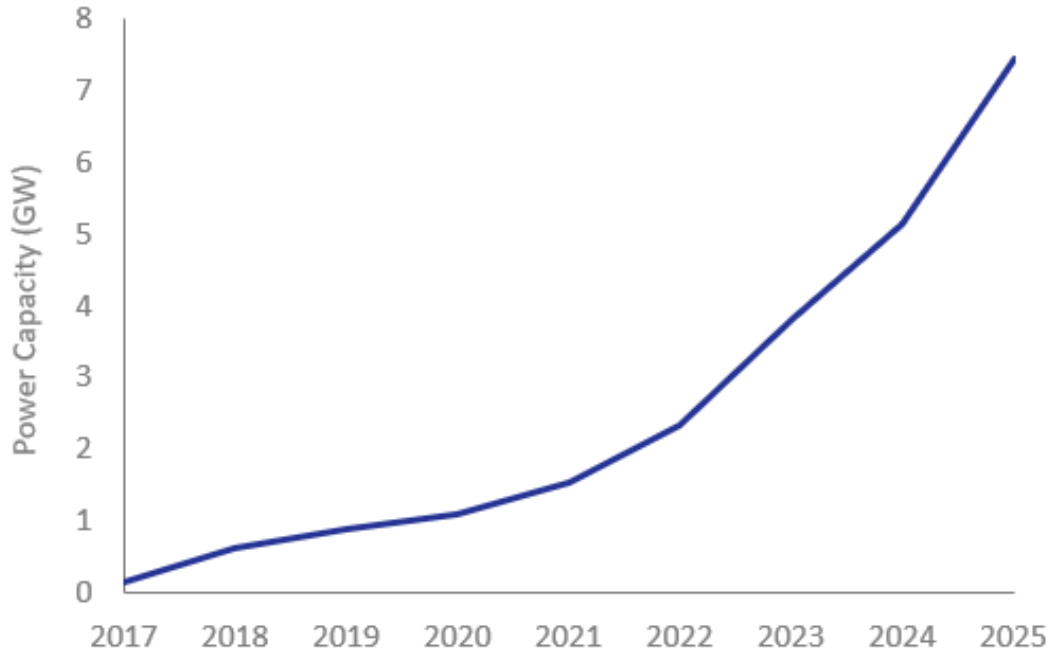
Capacity data covers the UK whilst battery input and output date are currently only estimated for Great Britain, as the underlying Elexon data is Great Britain only.

Power capacity

Battery power capacity measures the maximum rate of electricity output from a battery (in MW), while energy capacity measures the maximum amount of energy stored by a battery at one time (in MWh). We do not currently have a reliable data source for energy capacity figures. The trend in recent installations is towards higher energy capacity, with the average duration of maximum discharge greater than one hour and rising. Industry and policy are driving towards longer-term battery storage to provide more grid flexibility.

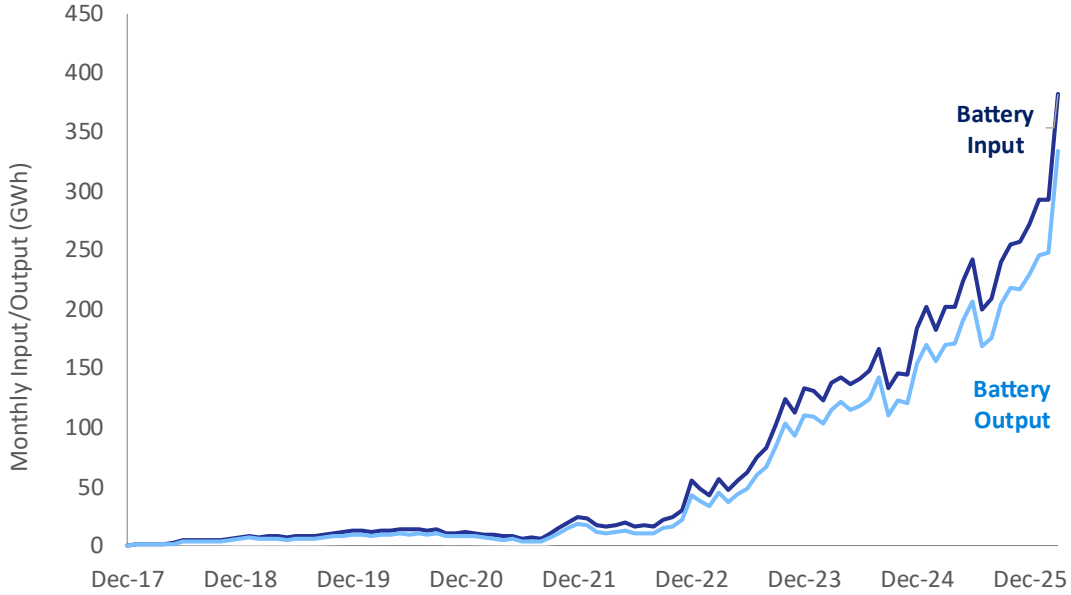
The first major UK grid-scale batteries came online in 2017. Since then, the total power capacity has risen considerably, reaching 7.5 GW in 2025. Capacity growth was steady from 2017 to 2021 and accelerated from 2022 in line with improved returns on investments. Standalone battery storage was removed from the NSIP (Nationally Significant Infrastructure Project) procedure in 2020, which removed a barrier from the planning process.

Chart 1: Annual UK grid-scale battery power capacity (GW), 2017 to 2025



Battery input and output

Chart 2: Monthly Great Britain (GB) grid-scale battery input and output (GWh), 2017 to March 2026

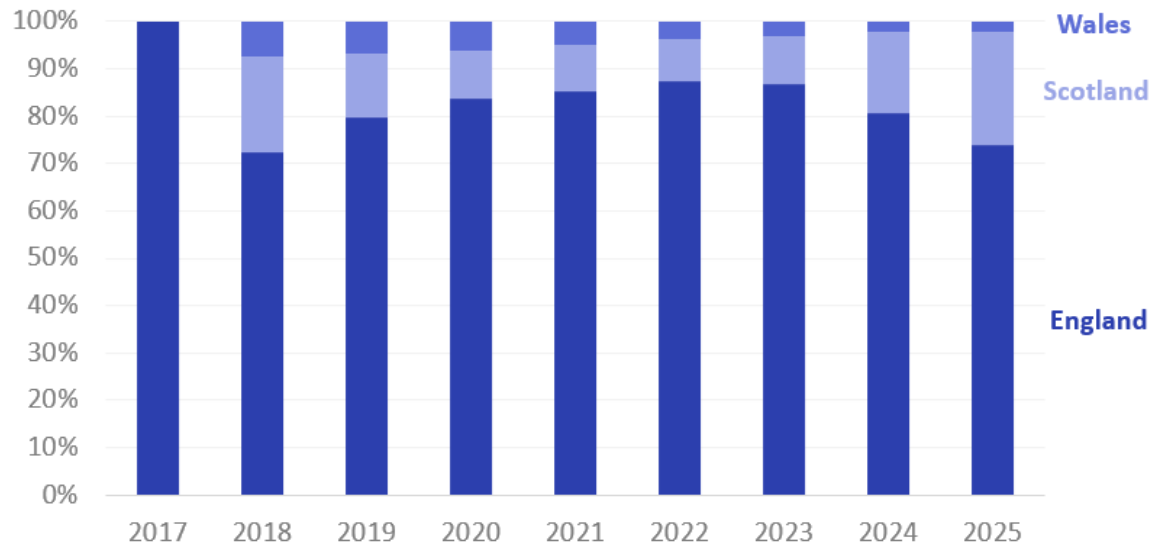


GB grid-scale battery input (charging) and output (discharging) rose in line with increases in capacity from 2017 to 2020 and dropped slightly in 2021, while the battery market was still developing and optimisation strategies shifted. Input and output increased more sharply from late 2022, driven by increases in installed capacity. Output from batteries rose from 0.8 TWh in 2023 to 2.3 TWh in 2025, while input followed a similar trajectory, reaching 2.7 TWh in 2025. For context, 294 TWh of electricity was generated in 2025.

Output always remains below input, as some energy is lost in each storage cycle. In 2025, GB's battery storage was on average, 85 per cent efficient. This is higher than that of pumped storage, which averaged 81 per cent in 2025. The increase in difference between input and output over time reflects increased utilisation rather than a significant deterioration in efficiency.

Input and output data is scaled from balancing mechanism activity only [see methodology below]. Data prior to 2022 is possibly less representative of all markets given that fewer battery assets were incentivised to register with the balancing mechanism then. Since 2022 however, a higher proportion of batteries were registered.

Chart 3: Regional proportions of Chart 3: Regional proportions of annual GB battery output, 2017 to 2025 [provisional]



In 2025, almost three quarters of battery output to the GB grid came from batteries located in England. Scotland accounted for 24 per cent in 2025, up from 17 per cent in 2024 and increased its share each year since 2022. Wales' share has remained relatively small with 2.1 per cent in 2025.

These data are provisional and will be published in the 2026 edition of 'Electricity generation and supply in Scotland, Wales, Northern Ireland and England'. As noted in the input/output methodology, Northern Ireland is not included due to lack of data visibility but is understood to be small relative to the total (approximately 2.1 per cent of UK power capacity).

Methodology

Input and output electricity (Great Britain only)

Data on the electricity input to and output from batteries comes from Elexon's BM Unit Aggregation Report, which quantifies the volume of electricity input/output to GB's Balancing Mechanism by Balancing Mechanism Units (BMUs). Batteries co-located with generation sites were excluded where identifiable to prevent double counting of supply. Where multiple settlement runs were available for a given day, the most recently published run is used.

Using the total electricity input/output of grid-scale batteries from/to the GB balancing mechanism, we can estimate the total electricity input to / output from grid-scale batteries to all markets in GB, as batteries can participate in markets other than the balancing mechanism. A 2026 review sought to re-visit the previous finding that on average since 2017, approximately half of battery output electricity is attributed to the Balancing Mechanism, with the rest attributed to other markets. Subsequently, it was found that in more recent years, this was closer to 70%. We do not currently hold data on usage of Northern Ireland's batteries. Future work will investigate non-balancing mechanism batteries, as well as those connected to Northern Ireland's grid.

Capacity (UK wide)

Data on the power capacity of grid-scale batteries is sourced from Elexon's list of registered BM units, available daily via their data portal. Batteries are identified in this file using the same list of IDs compiled for the input/output of electricity and additionally includes the output capacities of virtual/secondary BMUs of battery assets. The power capacity of a battery is taken to be the generation capacity, except in a handful of cases where power capacities are adjusted to the known figure. Like input and output, battery capacity is scaled to

account for non-BM assets compiled from a range of sources (was unscaled in previous publications). Scale factors are reviewed annually and are around 1.3x each year.

Work is ongoing to identify a data source as a basis for energy capacity figures, as well as gaining a better understanding of which battery assets are co-located with renewable generators. Comments and suggestions from readers of this article with respect to the methodology used and data coverage are welcome.

Revisions

Revisions have been made to battery input, output and power capacity figures in line with the above methodological changes and improved data coverage. Specifically, this includes 2017-2024 of the capacity time series and 2023-2024 of the input and output time series, as well as net supply figures in Energy Trends table 5.4. The energy storage rows of the balance tables have been revised to add the full electricity input to batteries.

The average revision to the capacity time series across all revised years was 17 per cent upwards, and downwards 22 per cent for the input, output and net supply time series. The overall impact on net electricity supply and demand was very small, under 0.5 per cent.

Battery statistics publications

Annual battery power capacities and input/output figures are published in the Digest of UK Energy Statistics (DUKES) table 5.16. Net electricity output from batteries to the grid (the difference between input and output) is published monthly in Energy Trends table 5.4. Regional breakdowns of input and output are published annually in a special feature article as part of Energy Trends.

This publication is available from: https://www.gov.uk/government/collections/energy-trends

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Data centre electricity consumption in Great Britain, 2020 – 2024

Official Statistics in Development

Hiten Shah energyefficiency.stats@energysecurity.gov.uk

Introduction

This article presents new estimates of the total electricity consumed from the grid by data centres in Great Britain, for the years 2020 – 2024. There is no universally agreed definition of a data centre. The estimates presented here only cover data centres which provide facilities that support external organisations or individuals. These include colocation data centres, managed hosting colocation data centres and hyperscale data centres; they do not include enterprise data centres (those owned and used by an organisation to support its own internal IT and data requirements).

Key headlines

- In Great Britain, data centres accounted for an estimated 4.5 TWh (2%) of the 249.2 TWh[1] of electricity consumed from the grid in 2024. Around three-quarters (77%) of this data centre electricity consumption occurred in the South East (1.8 TWh) and London (1.7 TWh).
- In terms of local authorities, Slough (in the South East) was by far the largest contributor, accounting for 1.3 TWh (29%) of data centre electricity consumption in 2024. In Slough, consumption from data centres doubled between 2020 and 2024 (from 0.6 TWh to 1.3 TWh). In 2024, data centres accounted for almost two-thirds (65%) of all electricity consumed from the grid in Slough.
- Between 2020 and 2024 total data centre consumption increased by 1.3 TWh (41%). The majority of this increase can be attributed to Slough (in the South East) and neighbouring Hillingdon (in London), which saw increases of 0.7 TWh and 0.4 TWh respectively over this period.

Data centre electricity consumption

The estimates of data centre consumption presented in this article are based on compiling a list of data centres (including addresses) from various sources and then matching meter level electricity consumption data to this list of data centres. Only the data centres identified to which consuming electricity meters could be matched are included in these figures. More details, including sources of uncertainty, can be found in the *Methodology* section of this article. The full set of resulting estimates (including the number data centres and total electricity consumption from these data centres) can be found in the accompanying workbook.

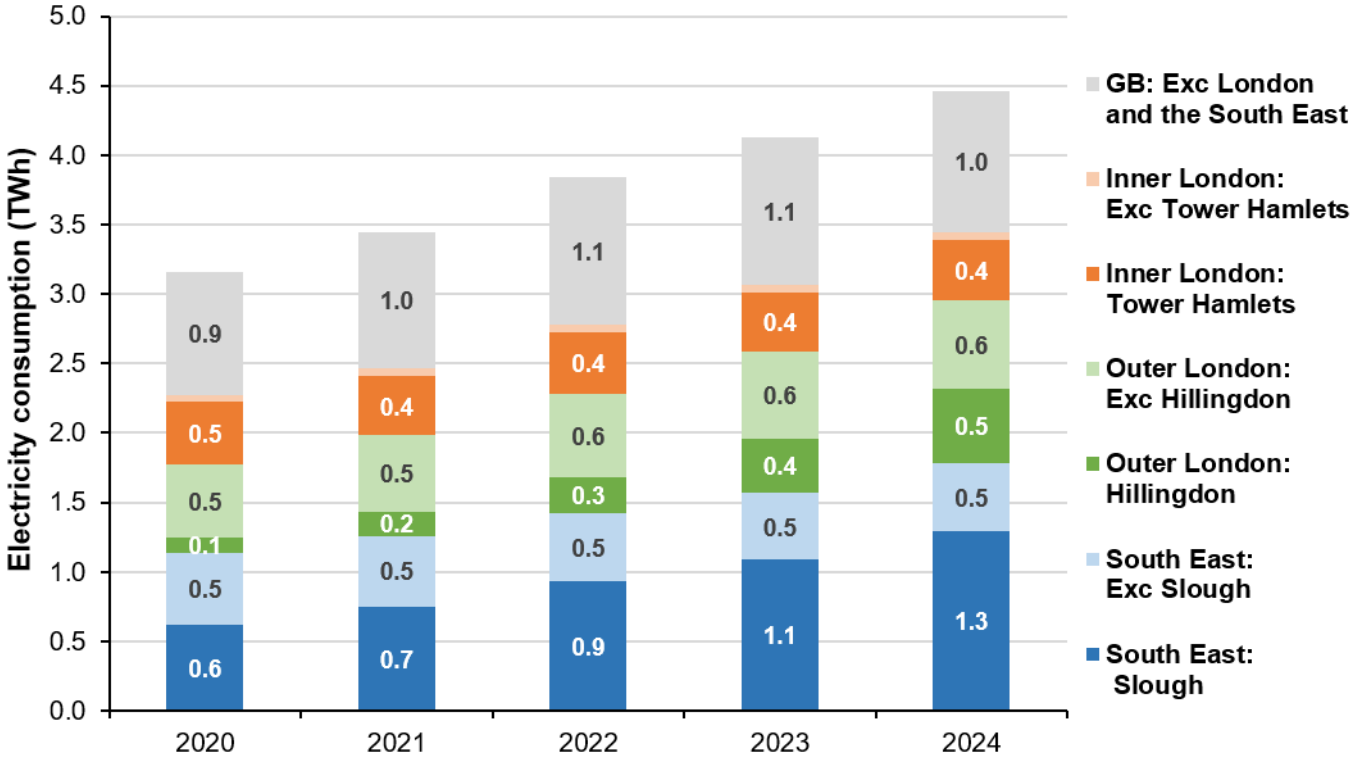
Based on this analysis, in 2024, data centres accounted for an estimated 4.5 TWh (2%) of the 249.2 TWh[1] of electricity consumed from the grid in Great Britain. Data centres located in the South East (1.8 TWh) and London (1.7 TWh) accounted for over three quarters (77%) of data centre electricity consumption in 2024. At the level of individual local authorities, data centres located in Slough had the highest consumption (1.3 TWh), accounting for 29% of total data centre electricity consumption in Great Britain.

Between 2020 and 2024 there was a 41% increase (1.3 TWh) in data centre electricity consumption from the grid. This increase can mostly be attributed to premises in two local authorities: Slough (in the South East) and neighbouring Hillingdon (in London) which saw increases of 0.7 TWh and 0.4 TWh respectively (see Chart 1). Whilst in Hillingdon the increase in consumption was mainly attributable to growing electricity consumption

[1] Subnational estimates of electricity consumption. These are estimates of electricity consumption based on meter level electricity consumption data.

from data centres which were already operational in 2020, for Slough, the addition of new data centres was also a key driver of the increase seen between 2020 and 2024.

Chart 1: Data centre electricity consumption in Great Britain, 2020-2024



South East

Data centres in the South East consumed 1.8 TWh of electricity, 40% of total data centre electricity consumption in Great Britain. Slough (1.3 TWh) accounted for the vast majority, with the remainder coming from Hampshire (0.2 TWh) and the rest of the South East (0.3 TWh).

In 2024, data centres accounted for 5% of total electricity consumption in the South East. Data centres consumed around two-thirds (65%) of electricity from the grid in Slough and 5% of electricity in Hampshire.

Data centre electricity consumption in the South East increased by 57% (0.6 TWh) between 2020 and 2024 owing to a doubling (0.7 TWh increase) in data centres consumption in Slough.

London

Data centres in London consumed 1.7 TWh of electricity in 2024 (37% of GB's total data centre consumption). 1.2 TWh was consumed in Outer London and 0.5 TWh in Inner London. Most of London's data centre electricity consumption in 2024 was concentrated in just two London Boroughs:

- Hillingdon (in Outer London, neighbouring Slough), which accounted for 0.5 TWh, a 5-fold increase on 2020; and
- Tower Hamlets (in Inner London, containing most of the London Docklands area), which accounted for 0.4 TWh, a 5% decrease since 2020.

Just as in the South East, in 2024, data centres accounted for 5% of total electricity consumption in London (7% in Outer London and 3% in Inner London). In Hillingdon and Tower Hamlets data centres accounted for 28% and 18% of total electricity consumption respectively.

Data centre consumption in London increased by 46% (0.5 TWh) between 2020 and 2024 owing to a 5-fold increase in data centre consumption in Hillingdon (0.4 TWh) and a 20% increase in the rest of Outer London (0.1 TWh).

The rest of Great Britain

In the rest of Great Britain (outside of London and the South East), 1.0 TWh of electricity was consumed by data centres (23% of GB's total data centre consumption), with the 'South West and Wales'[2] (0.4 TWh) and East of England (0.3 TWh) being the main contributors. In both of these areas, data centres account for 1% of all electricity consumed from the grid. A further breakdown cannot be provided for these areas owing to there being very few data centres which were operational by 2024.

Data centre consumption outside of London and the South East increased by 15% (0.1 TWh) between 2020 and 2024 mainly due to a doubling (0.2 TWh increase) of data centre consumption in the 'South West and Wales', partially offset by reductions seen in other parts of the country.

Methodology

Scope

The estimates presented in this article only cover data centres which provide facilities that support external organisations or individuals, and they exclude those owned and used by an organisation to support its own internal IT and data requirements (enterprise data centres). The data centres covered include:

- **Colocation data centres** – these provide the space, power, cooling, connectivity and security, for customers to manage their own servers and other hardware.
- **Managed hosting data centres** – the management of the hardware (and possibly also the software) is outsourced to the data centre.
- **Hyperscale data centres** - very large, highly scalable facilities used by major technology firms (e.g. Microsoft, Google, Amazon Web Services) to deliver services such as cloud computing, data storage and AI.

Data and matching

The estimates presented here are based on the same underlying meter level electricity consumption as used for producing Subnational electricity consumption estimates for Great Britain.

The Department for Science, Innovation and Technology (DSIT) internal dataset containing information on colocation data centres was used as a starting point. The records in the DSIT dataset were corroborated against and supplemented by other publicly available sources, including:

- the websites of Data Centre Operators
- a number of data centre industry websites including: datacentermap.com, datacenters.com, baxtel.com, colo-x.com, peeringdb.com

Additional data centres were identified from investigating cases where electricity meters (based on the address and consumption) were suspected to be corresponding to data centres.

Electricity meters were then matched to the expanded list of data centres, resulting in 242[3] data centres with electricity consumption data matched to them, which these estimates are then based on. DESNZ's Accredited Official Statistics on property/building level Domestic and Non-Domestic gas/electricity consumption rely on the DESNZ automated address matching algorithm. Here, electricity meters were matched to data centres manually instead, for reasons discussed in the *Comparison with other published estimates* section below.

[2] Regions are combined for disclosure reasons.
[3] This is the total number of identified data centres which these statistics are based on, but the number which are operational varies from year to year.

Uncertainty

One source of underestimation in these estimates is that some data centres within scope will not have been captured in the final list. These are likely to be smaller data centres which will have a minor impact on the final estimates. Additionally, there were some data centres (17 out of 259[4]) to which electricity meters could not be matched. It is expected that the addition of these data centres would also have a limited impact.

One possible source of overestimation is cases where there may be one or more large data centres in the same building as other offices and so some of the consumption captured may not be data centre consumption. However, we expect the number of such cases to be small, and in these cases the data centre(s) are likely to account for the vast majority of the electricity consumed in the building.

Comparisons with other published estimates

The National Energy System Operator (NESO) has published a figure of 7.6 TWh[5] for the total data centre electricity consumption across Great Britain in 2023. This estimate is based on information about the capacities of data centres in Great Britain with assumptions made about the utilisation of this capacity. The estimates presented here, which are instead based on meter level data on the electricity actually consumed, give a lower 2023 total of 4.1 TWh.

DESNZ's Non-Domestic National Energy Efficiency Data-Framework (ND-NEED) (which provides statistics on non-domestic gas and electricity consumption by business characteristics) has a published figure of 2.6 TWh[6] for data centre electricity consumption in England and Wales in 2023. The estimates presented here, give a higher 2023 total of 4.1 TWh for England and Wales.

The ND-NEED estimates are based on the same underlying meter level electricity consumption data as the new estimates presented in this article. ND-NEED uses the HMRC Non-Domestic Ratings List of all non-domestic buildings. Classifications within this dataset are used to identify the premises which are data centres.

ND-NEED makes use of the DESNZ automated address matching algorithm to match electricity meters to non-domestic buildings (records in the HMRC Non-Domestic Ratings List). This is consistent with the approach taken for Domestic NEED. An automated approach is essential given the volumes of data involved when looking across the whole country.

In the specific case of data centres, given that there are a relatively small number of them and that they vary greatly in terms of size (and therefore consumption), failing to match (or match correctly) a few key high consuming data centres, can have a large impact on the final estimates. There are also a number of other issues related to data centre addresses which mean that automated matching may be less reliable here. These include:

- Different sources often have conflicting information about the address of the data centre. One common reason is that a large data centre campus may have multiple entrances. In such cases further investigation may be required to understand the situation and find an address for the data centre which can be used for the purpose of matching electricity meters to the data centre(s) in question.
- The data centre address and/or the meter level address often doesn't include a building number and so the presence of the name of the data centre/data centre operator and/or building name may be crucial components of the meter address in enabling meters to be matched. Moreover, especially with data centres being a fast-changing area, this part of the meter address may be out of date. In such cases further investigation of the history of the data centre may be necessary.

This is why a more manual resource intensive approach has been taken to matching addresses here. This was only feasible because the premises of interest are a small sub-population of all non-domestic buildings.

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[4] This excludes data centres that were not yet operating in 2024 (the latest year covered by these estimates).
[5] Future Energy Scenarios: Pathways to Net Zero, November 2025 (page 110).
[6] Non-domestic National Energy Efficiency Data-Framework, August 2025 (page 51).

Further information

The statistics presented here are classed as Official Statistics in Development as they carry a higher degree of uncertainty than Official Statistics. Information has been included to allow users to assess quality and judge whether fit for their intended use. The Department will continue to evaluate these estimates, exploring opportunities for development. We will continue to engage with organisations producing estimates on data centre consumption such as NESO. We plan to update our estimates in 2027 to include 2025 electricity consumption data along with any improvements made to data and methods used.

These statistics will inform sectoral electricity consumption estimates in the Digest of UK Energy Statistics (DUKES) and UK Energy Trends publications. Data centre consumption is included in the Post and telecommunications sector in DUKES table 5.2, which itself is included in broader Commercial sector category in DUKES table 5.1.

User feedback

Users are encouraged to provide comments and feedback on how these statistics are used and how well they meet user needs. Comments on any issues relating to these statistics are welcomed and should be sent to energyefficiency.stats@energysecurity.gov.uk.

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Hydrogen production and demand in the UK, 2022 to 2025

Official Statistics in Development

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The Department for Energy Security and Net Zero has collected, quality assured and analysed new hydrogen data for 2025. This data has been used to publish this article as Official Statistics in Development to involve users and stakeholders at an early stage in assessing their suitability and quality (for more information see Appendix 1: supporting information). As these statistics are in development, they carry a higher degree of uncertainty than Official Statistics. The Department will continue to evaluate their quality to ensure the data and statistical methods are robust.

To provide feedback please contact gas.stats@energysecurity.gov.uk

Key headlines

- Hydrogen production and demand is small relative to other fuels. Between 2022 and 2025, the UK produced around 13 TWh of hydrogen annually (equivalent to 4 per cent of natural gas production), with production falling 9 per cent in 2025 compared with 2024.
- Hydrogen demand was also around 13 TWh, equivalent to 2 per cent of natural gas demand, decreasing by 8 per cent in 2025 compared with 2024.
- Hydrogen production is concentrated in the refining and chemical sectors, with most of the UK's production occurring as a by-product of other processes. In 2025, more than 80 per cent of hydrogen production was by-product hydrogen, with more than 70 per cent of total production being produced by catalytic reformers. Comparatively, steam methane reforming accounted for 13 per cent over the same period.
- Whilst refinery processes produce hydrogen as a by-product, refineries are also major hydrogen consumers, accounting for 75 per cent of total demand in 2025. The chemicals industry and non-energy use accounted for 23 per cent of hydrogen demand in 2025.

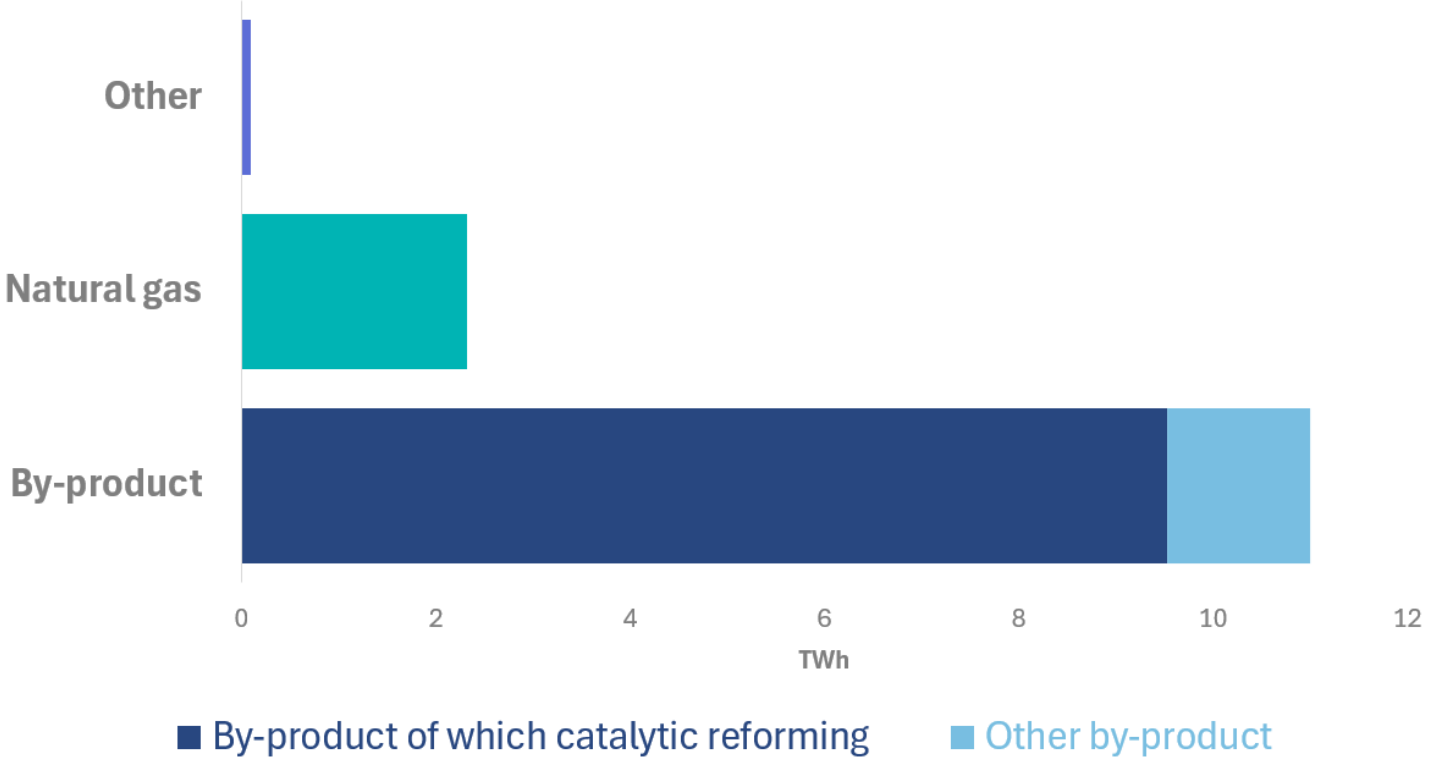
Hydrogen Production

Hydrogen is not a primary energy product; it must be produced from other fuels. Currently, global hydrogen production and demand, including in the UK, is concentrated in the refining and chemicals sectors.

Annual hydrogen production was 13 TWh in the UK on average between 2022 and 2025. This is equivalent to 4 per cent of UK natural gas production in the same period. In 2025, hydrogen production fell by 9 per cent compared with 2024, due to refinery closures.

Hydrogen is commonly produced as a by-product of other activities, where chemical reactions used to produce other products also produce hydrogen. More than 80 per cent of production was as a by-product in 2025, the remainder was produced using natural gas, continuing a similar pattern observed in 2024. Hydrogen production from other fuels fell to zero in 2024 and remained at that level in 2025, having previously accounted for 1-2 per cent of production in 2022 and 2023.

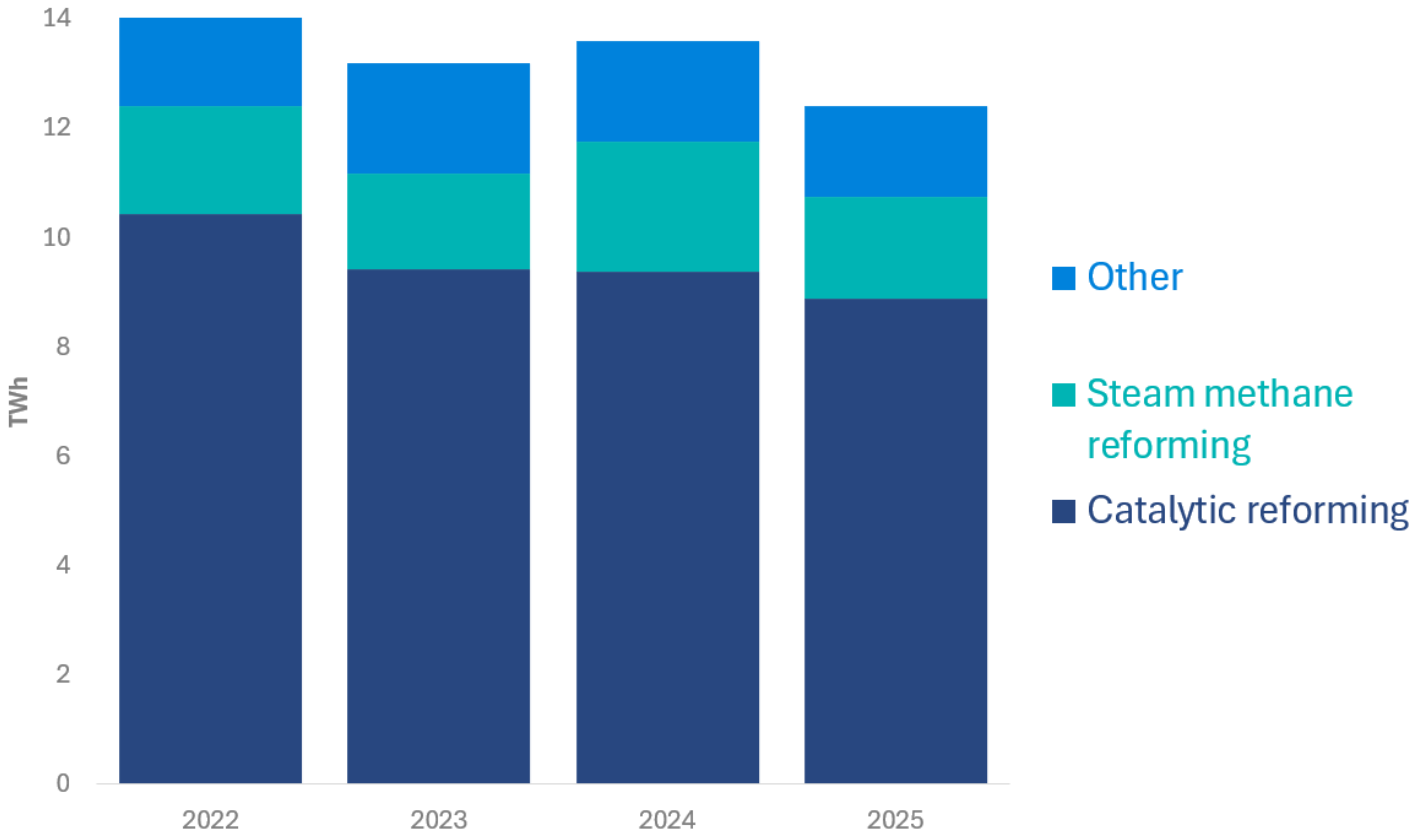
Chart 1: Hydrogen production by type in the UK, annual average 2022-2025



The most substantial type of by-product production is through catalytic reforming. Catalytic reformers are used by refineries to produce the components of petroleum products from derivatives of crude oil, producing hydrogen as a by-product. More than 70 per cent of hydrogen was produced using catalytic reformers in 2025.

A further 13 per cent of hydrogen was produced using steam methane reformers. Steam methane reformers use natural gas to produce hydrogen. Unlike catalytic reformers, the primary purpose of steam methane reformers is hydrogen production. The remaining production technologies have been aggregated to protect identifiable information (see Disclosure Control for more information).

Chart 2: Hydrogen production by technology in the UK, 2022-2025



Hydrogen Demand

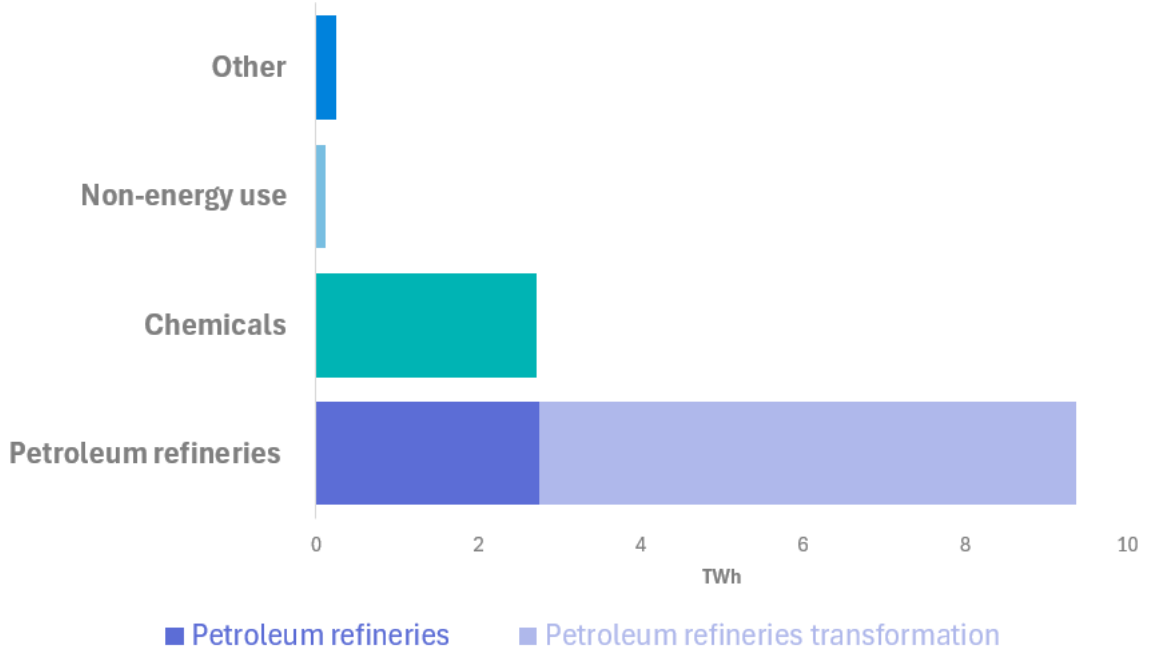
Like production, hydrogen demand in the UK is small relative to other fuels. Hydrogen demand was approximately 14 TWh on average between 2022 and 2025, equivalent to around 2 per cent of natural gas demand in the same period. In 2025, hydrogen demand was 12 TWh, down 8 per cent compared with 2024. It is common for hydrogen production to take place within the facility where it is consumed.

Whilst refineries produce hydrogen as a by-product of catalytic reforming, they are also major consumers of hydrogen. In 2025, refineries accounted for 75 per cent of total hydrogen demand. During refinery processes, hydrogen is often incorporated into other fuels rather than being burnt as a fuel directly. In Energy Statistics this is known as transformation, where one type of energy is 'transformed' into another. The majority (more than 70 per cent) of refinery hydrogen demand in 2025 was for transformation, with the remainder used to support other refinery processes.

Hydrogen is also used in the chemicals industry as both a fuel for high temperature processes and a feedstock for chemical production. Where hydrogen is incorporated into chemicals, this is considered non-energy use. Together, the chemicals sector and non-energy use accounted for 23 per cent of total hydrogen demand in 2025.

Hydrogen is used in other sectors including other industries, transport and by other final users. In these sectors, hydrogen is likely used in fuel cells to power buildings or vehicles. Based on the data collected, each of these sectors accounted for less than 1 per cent of total hydrogen demand in 2025.

Chart 3: Hydrogen demand in the UK, 2025



Appendix 1: supporting information

1. Official Statistics in Development

These statistics were produced using a new data collection of existing hydrogen producers. They are in development, therefore carry a higher degree of uncertainty than Official Statistics. It is not currently possible to quantify this uncertainty precisely; however, information has been included to allow users to assess quality and judge whether fit for their intended use.

The data collection aimed for 100 per cent coverage of existing hydrogen producers. However, unlike other fuels, there is no centralised register of hydrogen suppliers in the UK. The department utilised relationships with industry, including trade associations, to gather information. Whilst we anticipate all substantial hydrogen producers have been included; it is possible that some are missing.

The timeline for incorporating these statistics into our regular publications, including the Digest of UK Energy Statistics (DUKES) and Energy Trends, will depend on the development of international methodologies and ongoing collaboration on their implementation.

To provide feedback, please contact gas.stats@energysecurity.gov.uk

2. Disclosure Control

In line with guidance data may have been aggregated or omitted to ensure identifiable information has not been published.

3. Units and Conversions

Data were collected in mass units (kg) of pure hydrogen; this was converted to energy units using a gross calorific value of 141.8 megajoules per kilogram (MJ/kg).

4. Revisions

Minor revisions to data for 2022 to 2024 have been included following revised data from suppliers.

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Improvements to electricity supply and consumption statistics (Energy Trends table 5.2)

Vanessa Martin **0776 757 3907** electricitystatistics@energysecurity.gov.uk

Key headlines

This article explains improvements to Energy Trends Table 5.2 to make the data easier to understand and more comparable with other published statistics.

The key changes are:

- Separating transport into road and rail, to give more visibility of the growth in electric vehicle consumption;
- Separating energy industry use into electricity used in generation and electricity used by fuel industries;
- Two additional tables to show the calculation of electricity available and electricity consumption from the quarterly data, for direct comparison with Energy Trends 5.5.

Background

Energy Trends Table 5.2 presents a complete quarterly balance of electricity supply and demand in the UK, showing how electricity is generated, imported, and consumed across different sectors. It is used alongside Energy Trends Table 5.5 which reports monthly data on electricity sales to consumers. A review of these tables identified opportunities for greater convergence in definitions and presentation, enabling more direct comparisons between them. It also identified limitations in electricity transport data which have been addressed separately.

What has changed in Table 5.2

Clearer breakdown of energy industry use

Electricity used within the energy sector was previously presented as a single category. This is now split into electricity used in generation and electricity used in other energy industry activities. This allows for direct comparison with Table 5.5 where energy industry data was counted as industrial consumption and electricity used in generation was reflected in the ‘electricity available’ measure.

Transport consumption split into road and rail

Electricity consumption in transport is now presented separately for road transport (electric vehicles) and rail transport, improving visibility of trends. In addition, road transport calculations were reviewed. They will now be updated quarterly and include consumption by electric buses. A separate Energy Trends paper gives more details on the updated methodology.

We have also amended the table category names for domestic and other final users to make it clear that these categories do not include electric vehicle consumption (which would cause double counting with transport). The content of these rows has not been changed.

Additional ‘electricity available’ table (5.2B)

Table 5.5 reports electricity available from the public distribution system (PDS) and from other generators, building on the electricity supply data in Table 5.4. While this came from the same data sources as the ‘electricity supply’ data in Table 5.2, it was not possible for users to map between the tables. Data on electricity used in generation was not presented separately and users did not have visibility of the amount of electricity transferred to the PDS from other generators. This additional table contains additional components needed to make the calculations and demonstrates how electricity available compares to electricity supply.

Additional ‘electricity consumption’ table (5.2C)

Table 5.5 reports electricity consumption from the public distribution system (PDS) and from other generators. This is a subset of the data presented under electricity demand in Table 5.2, but the categories were grouped such that users could not map between the tables. Specifically, the consumption measure in Table 5.5 included consumption by energy industries, which was grouped with electricity used in generation in Table 5.2. In addition, Table 5.5 reported separate data for the public distribution system and for other generators, which were reported as one total in Table 5.2. This table separates PDS consumption and consumption from other generators on a quarterly basis, including separate fuel industries consumption so that consistent quarterly totals can be presented across both tables.

User feedback

Since these changes only increase the information available, we have implemented them from the June 2026 publication. A version of the table in the old format is available on request. As ever, we welcome comments and feedback on these changes via electricitystatistics@energysecurity.gov.uk.

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Methodology changes sector definitions: Digest of UK Energy Statistics 2026

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Sectors in DUKES are defined using Standard Industrial Classification (SIC) codes, (Office for National Statistics, UK SIC 2007). SIC codes are a statistical tool used to classify a company's main business activity which provide a consistent framework for grouping economic activity.

Review work identified differences in how some sectors were defined across fuels within DUKES, alongside an opportunity for closer alignment with international recommendations. As a result, definitions for the 'other industry', commercial and miscellaneous sectors have been updated. The table below summarises the main changes.

Table 1, summary of changes to sector definitions

Sector name	SIC codes before change	SIC codes after change
Other industry (Name changed to 'Other manufacturing, wood and wood products' following change)	16, 22, 31, 32, 33, 36, 37, 38, 39	16, 22, 31, 32
Commercial	45, 46, 47, 52, 53, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 82	33, 36, 37, 38, 39, 45, 46, 47, 52, 53, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 82, 90, 91, 92, 93, 94, 95, 96, 99
Miscellaneous	90, 91, 92, 93, 94, 95, 96, 99	No longer used

The main change is the removal of the miscellaneous sector, with the SIC codes previously included in this category reallocated to the commercial sector. This affects oil, gas, bioenergy and waste, and heat. Estimates for the miscellaneous sector were based on limited information, reflecting uncertainty over how it was defined. Removing miscellaneous also brings the commercial sector into alignment with other fuels, including electricity.

A smaller related change affects some SIC codes currently included in the ‘other industry’ sector, which international recommendations indicate are more appropriately classified as commercial. These changes affect all fuels and will be implemented in gas and electricity this year, before being applied to other fuels next year. To further improve clarity for users and data suppliers, the name ‘other industry’ will also be updated to ‘other manufacturing, wood and wood products’.

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Methodology changes to Natural Gas Statistics: Digest of UK Energy Statistics 2026

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Introduction

This article explains the methodological changes we plan to introduce to natural gas statistics in the 2026 edition of the Digest of UK Energy Statistics (DUKES), which will be published on 30 July 2026. This updates sectoral gas consumption over the period 1998 to 2024, which will result in revisions to the full series.

These changes have been made to improve the quality, coherence and transparency of published data, and we hope they will benefit users, while recognising that revisions to long time series can create some short-term challenges. Feedback or requests for further information can be sent to gas.stats@energysecurity.gov.uk.

Background

The Department collects data on gas supply and demand through surveys and other sources (see Natural gas statistics: data sources and methodologies for more information). Data on gas used for final consumption are collected from energy suppliers. Final consumption refers to gas used directly by end users, rather than gas used to produce other fuels, such as electricity. The Department publishes estimates of final consumption by sector. Broad sector categories, domestic, industrial and services, are published monthly. These are further disaggregated quarterly, and again annually, to provide estimates for a wider range of subsectors. Annex 1 sets out the full list of sectors and subsectors.

Energy suppliers can usually distinguish gas used by domestic and non-domestic customers relatively easily, as these customers are typically recorded separately for billing purposes and are subject to different rates and taxes. However, identifying different types of non-domestic customers presents challenges.

- **Limitations of classifications.** Suppliers are asked to classify customers using Standard Industrial Classification (SIC) codes. SIC codes, developed and maintained by the Office for National Statistics, are the UK standard framework for classifying businesses by their economic activity. However, like classifications more broadly, SIC codes have limitations,

particularly where organisations operate across multiple sectors but must be allocated to a single category, or where billing arrangements do not reflect the activity using the gas. For example, an industrial site may be classified under its head office.

- **Practicalities of classifications.** Beyond the limitations of classifications themselves, further inconsistencies arise because data suppliers are not required to hold SIC codes and may use different approaches to assign customers to categories. As non-domestic customers can change supplier frequently, the classification applied to the same customer may not remain consistent over time.

In addition to classification issues, sectoral gas consumption is further complicated by gas used for electricity and heat generation. Many businesses generate electricity and/ or heat alongside their main activity, known as autogeneration. Under energy statistics conventions, gas used for generation is classified as transformation rather than final consumption and should therefore be excluded from these sectors. However, energy suppliers rarely know the end use of the gas they supply, which creates a further methodological challenge.

The Department has undertaken significant work in recent years to improve its understanding of gas consumption. This has included increasing the frequency and coverage of data collections, visiting energy suppliers to better understand their processes, and carrying out a substantial programme of work to collate and clean historic data and support methodological development. While the challenges outlined above remain, this work has improved the accuracy of sectoral gas consumption estimates. The revised estimates described in this article will be published in the July 2026 edition of DUKES on 30 July 2026.

Findings

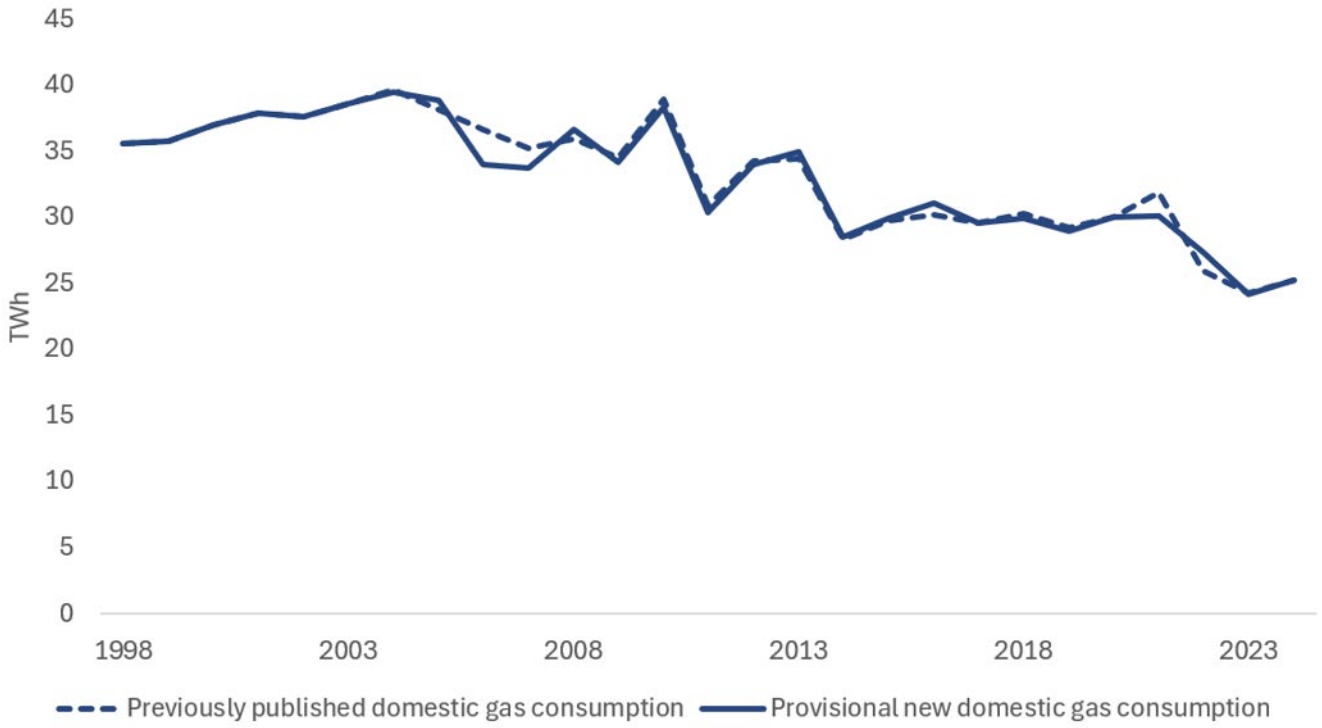
This work identified three main findings. First, the evidence confirms that estimates of overall gas demand as well as consumption by the domestic sector are robust. Second, it suggests some misclassification between the industrial and services sectors. Third, it indicates more significant classification issues within subsectors, where the current breakdown appears less reliable.

Total gas demand and the domestic sector

Revisions to total gas demand over the period 1998 to 2024 are minor, averaging 0 per cent and ranging from approximately -4 to 3 per cent.

For the domestic sector, revisions also average 0 per cent, although the range is slightly wider at approximately -7 to 5 per cent. Larger revisions are limited to a small number of years, notably following changes to condensing boiler regulations in 2005 and during 2021 and 2022, when consumer behaviour became more uncertain during the Covid-19 pandemic and high prices following the Russia-Ukraine conflict. The domestic sector’s average share of total gas demand between 1998 and 2024 remains unchanged at 35 per cent.

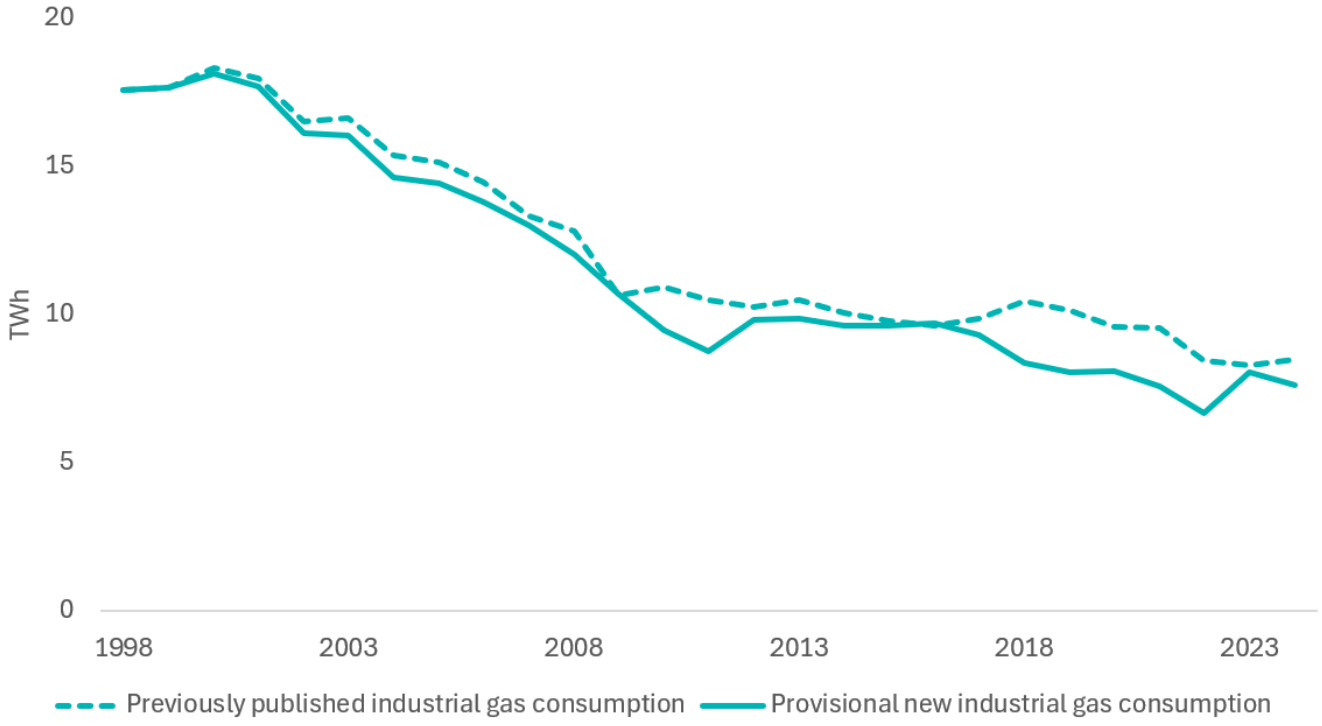
Chart 1, previously published and provisional new data for the domestic sector



Industrial and services sector classifications

Some misclassification was identified between the industrial and services sectors, resulting in revised allocations of gas consumption between the two over the period 1998 to 2024. On average, there is little change to total non-domestic consumption. However, the revised series show lower consumption in the industrial sector and higher consumption in the services sector than previously estimated, particularly from the mid-2010s onwards.

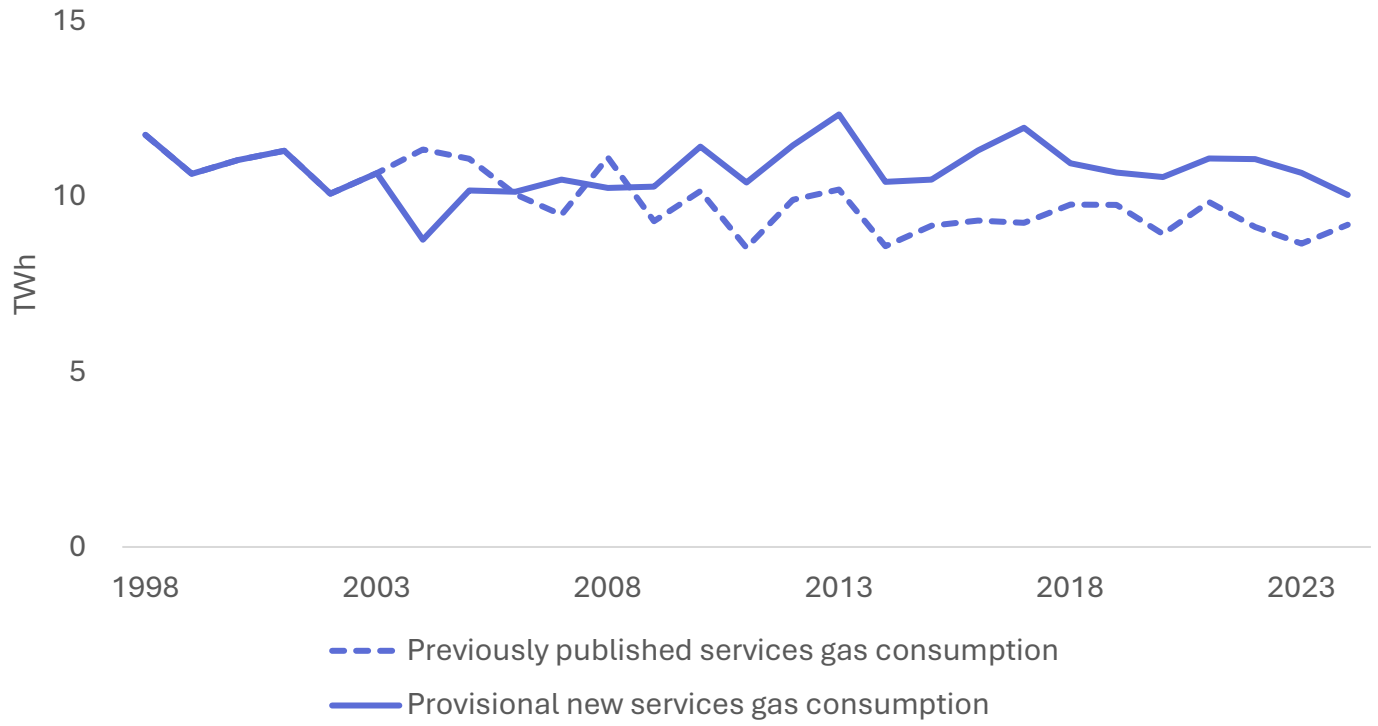
Chart 2, previously published and provisional new data for the industrial sector



Revisions to the industrial sector average -8 per cent, with a range of approximately -21 to 1 per cent. The sector's average share of total gas demand over the period 1998 to 2024 falls from 13 per cent to 12 per cent. Revisions in 2010 and 2011 reflect the effects of the financial crisis which lasted

longer than previously reflected in the data. Later revisions are consistent with structural changes in the industrial sector ahead of the period of high energy prices in 2022.

Chart 3, previously published and provisional new data for the services sector



Revisions to the services sector average 9 per cent, with a range of approximately -23 to 29 per cent. The sector's average share of total gas demand over the period 1998 to 2024 rises from 10 per cent to 11 per cent following the revisions.

Changes to the industrial and services sectors are consistent with broader structural changes in the UK economy over this period, as economic activity has become increasingly concentrated in the services sector. Some methods and benchmarks developed when production sectors accounted for a larger share of the economy are less well aligned with current patterns of energy use and economic activity. The methodology has therefore been updated to better reflect the current structure of the UK economy.

Subsector classifications

The most substantial revisions are within subsector classifications. These changes affect the allocation of gas consumption across individual subsectors to a greater extent than the higher-level sector groupings discussed above. Given the scale and complexity of these revisions, this article does not set out changes for each subsector individually. Table 1 shows how the shares of sector demand accounted for by individual subsectors differ between the previously published and revised data. Although revisions for some subsectors are substantial in particular years, the table provides an early overall picture of how the revised subsector composition compares with the previous estimates.

More detailed information on the revised subsector breakdowns will be published in the July 2026 edition of DUKES, when users will be able to assess the changes on a sector-by-sector basis.

Table 1 proportions of sectors and subsectors as previously published and provisional new

	Published	New (provisional)

Sectors' share of demand (average 1998-2024), %		
Domestic	35	35
Industry	13	12
Services	10	11
Subsectors' share of industrial demand (average 1998-2024), %		
Food, beverages etc.	18	22
Mineral products	11	12
Chemicals	23	25
Other manufacturing and wood	8	7
Paper, printing etc.	8	9
Iron and steel	6	6
Mechanical engineering etc.	7	5
Construction	3	3
Vehicles	6	4
Textiles, leather etc.	4	2
Electrical engineering etc.	3	2
Non-ferrous metals	3	2
Unclassified	0	0
Subsectors share of services demand (average 1998-2024), %		
Commercial	42	63
Public administration	42	36
Agriculture	1	2
Miscellaneous	15	0

Note 1, large changes to the commercial and miscellaneous sectors reflect changes to the definitions of these sectors, see Methodology changes sector definitions: Digest of UK Energy Statistics 2026 for more information.

Note 2, New data are provisional and will be subject to change before publication in July.

Energy industry and other changes

This year the energy industry sector has also been reviewed. Most gas consumption in this sector is by oil and gas producers, where data quality is comparatively high. However, as with the industrial sector, there was scope to improve the quality of other subsector estimates. Revisions to the sector are minor overall, averaging -1 per cent over the period 1998 to 2024, with a range of approximately -4 to 3 per cent. The largest revisions will affect petroleum refineries, reflecting the complexity of refinery operations and their links with the chemicals sector and other energy infrastructure. More detailed information on these subsector revisions will be published alongside the other revised subsector estimates.

The long revision window has also provided an opportunity to roll back a number of methodological improvements introduced in recent years through the historic series. These include modelled transport data and improved data for stocks and losses. As the starting point differs by change, these will be clearly indicated in relevant tables.

Annex 1: Sectors supporting information

Sector (published monthly)	Subsector (published annually)
Industry	Unclassified
Industry	Iron and steel
Industry	Non-ferrous metals
Industry	Mineral products
Industry	Chemicals
Industry	Mechanical engineering etc
Industry	Electrical engineering etc
Industry	Vehicles
Industry	Food, beverages etc
Industry	Textiles, leather etc
Industry	Paper, printing etc
Industry	Other manufacturing and wood
Industry	Construction
Domestic	NA
Services	Public administration
Services	Commercial
Services	Agriculture

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Update to transport energy intensity estimates within *Energy Consumption in the UK*

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Key headlines

The Department for Energy Security and Net Zero (DESNZ) publishes data on energy consumption within the annual energy balances that are published in the Digest of UK Energy Statistics (DUKES)[1] in July of each year. An accompanying publication to DUKES, Energy Consumption in the UK (ECUK[2]) is published annually in September. ECUK brings together energy consumption with other data sources on economic output to provide estimates of energy intensity across different sectors of the economy. For example, transport energy intensity estimates combine energy consumption with measures of transport activity to show how energy use relates to passenger and freight movement across different modes of transport.

This paper outlines planned updates to the methodology used to estimate transport energy intensity within ECUK. The updates improve the alignment between energy consumption and measures of transport activity, including a clearer distinction between passenger and freight transport. These proposed changes are intended to be implemented in ECUK 2026, following user feedback.

ECUK energy intensity

UK energy statistics in DUKES and ECUK

The Department for Energy Security and Net Zero (DESNZ) is responsible for publishing data on the UK's energy system. The annual energy balances, which show the UK's production, consumption and trade of energy, are published in the Digest of UK Energy Statistics (DUKES). ECUK builds on sectoral energy consumption data presented in DUKES by combining them with measures of economic output to produce energy intensity figures.

Transport energy intensity estimates in ECUK

Table I2 presents energy intensity by transport mode, combining energy consumption with activity measures such as passenger-kilometres or tonne-kilometres. The table currently covers road, rail, air and water transport, with road further split into passenger and freight. The underlying energy consumption totals are consistent with the transport consumption data published elsewhere in ECUK and DUKES, while the activity measures are drawn from other government departments.

Due to limitations in published data, transport energy use and output measures do not always cover the same activities. As energy intensity is calculated using consumption as a numerator and output as a denominator, parameter definitions should be aligned as far as possible. As DUKES and external transport datasets are updated over time, the methodology for Table I2 is reviewed periodically to maintain alignment and consistency.

Energy intensity numerator and denominator alignment

Coverage of energy consumption and output in transport in ECUK 2025

The table below shows the alignment between the coverage of energy consumption data and coverage of the output measures used in ECUK. This shows some inconsistency between the metrics, e.g. with the rail output measure only including passenger movements.

[1] Digest of UK Energy Statistics (DUKES) - GOV.UK

[2] Energy Consumption in the UK - GOV.UK

Transport mode	Energy consumption coverage	Output coverage
Road passenger	Fuel use by passenger vehicles	Passenger-km of passenger vehicles
Road freight	Fuel use by freight vehicles (LGVs and HGVs)	Tonne-km of freight vehicles (limited LGV coverage)
Rail transport	Fuel use by mainline and other rail	Passenger-km of mainline passenger rail
Air transport	Delivered fuel for all flights	Passenger-km of UK-registered commercial flights
Water transport	Delivered fuel for national navigation	Tonne-km of domestic waterborne freight

Reviewing the alignment of consumption and output in ECUK 2025

A review of transport energy intensity estimates has been undertaken to consider how updates in source data can improve consistency between the energy consumption and transport activity measures used in transport energy intensity estimates. From this we have identified a number of updates which, if implemented, will strengthen consistency in coverage across modes and introduce clearer passenger and freight definitions where possible. The proposed changes below are set out by transport mode and are presented for user feedback before implementation in ECUK 2026.

Methodological updates for ECUK 2026

Road transport

For road transport there will be some incremental updates that improve alignment between energy consumption and the output metrics due to planned improvements in DUKES coverage in DUKES 2026, These include completing the passenger-freight split for natural gas consumption for the years 2017-2022 and incorporating electricity use for buses.

For road freight, the underlying tonne-kilometre statistics include both heavy goods vehicles (HGVs) and light goods vehicles (LGVs) in earlier years, but from 2014 onwards LGVs are no longer included[3]. DfT also state that, following a methodology change in 2021, road freight data before and after quarter 3 of 2021 should not be compared, so a consistent time series is not available. To maintain coverage of LGVs and HGVs while preserving a continuous energy intensity time series, freight output will instead be based on vehicle-km travelled by LGVs and HGVs combined. This means the revised road freight series is more reflective of energy use relative to vehicle movement than to goods moved.

Rail transport

For rail transport, separate passenger and freight energy intensity series are proposed. Previously, rail energy consumption was published as a combined total covering both passenger and freight services, while the output measure reflected only some passenger rail activity.

The proposed update splits rail energy consumption between passenger and freight services using ORR data on fuel consumption. Additionally, passenger rail output has been expanded to include underground, light rail and tram services in addition to mainline rail. A separate freight rail series is also proposed. Output data for passenger and freight rail are drawn from published sources by the Department for Transport and the Office of Rail and Road.

Air transport

In ECUK 2025, aviation energy consumption covered both commercial and non-commercial outbound flights, while output data included domestic and international passenger commercial flights.

Separate passenger and freight energy intensity series will be introduced, but total energy consumption figures remain unchanged. Output figures used in air transport intensity will also be updated, with passenger activity based on outbound flights only, and outbound freight activity included on a consistent basis. Some aviation activity not covered by passenger or freight output data (such as air taxi, private and general aviation) remains included in total consumption as no robust activity data are available to treat these separately. The resulting

[3] Freight: notes and definitions - GOV.UK

intensity estimates are modelled using simplifying assumptions and therefore do not fully capture the complexity of aviation fuel use.

Water transport

The current water transport intensity figure combines fuel delivered for national navigation with output of domestic waterborne freight. Although elements of numerator and denominator do not align, suitable activity data are not available to support further disaggregation into passenger and freight transport. No methodological change is therefore proposed at this stage, and we welcome views on alternative methods.

Impact on transport energy intensity estimates

Annex 1 shows the effect of the proposed methodological changes on the transport energy intensity time series, comparing the indexed energy intensity metrics published in ECUK 2025 and those proposed for ECUK 2026 series. The charts are presented as indices to support comparison of trends over time rather than absolute levels. The differences shown reflect methodological updates to improve consistency between energy consumption and output measures and should not be interpreted as changes in underlying transport efficiency between ECUK editions.

Implementation in ECUK 2026

The proposed methodological changes described above would be reflected in the transport energy intensity tables (Table I2) published in ECUK 2026. The overall table structure remains largely unchanged, with the same core presentation, and with the separate metrics for passenger and freight activity in rail and air transport as discussed above.

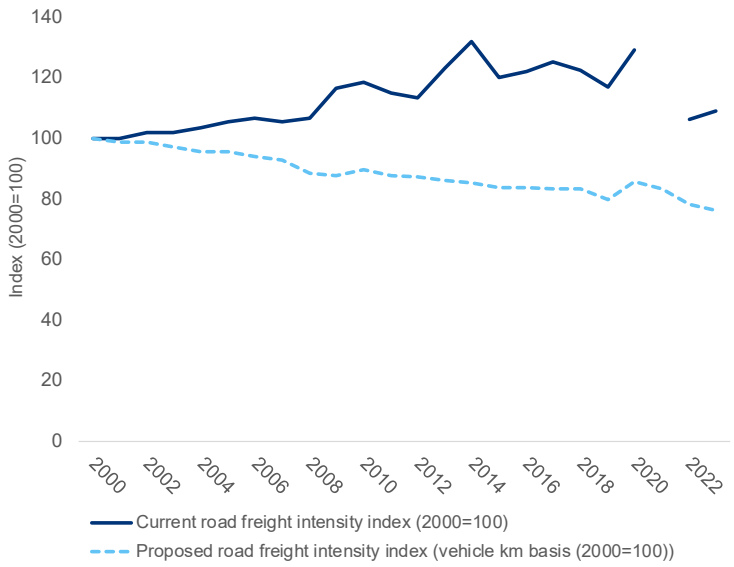
Due to limitations in the availability of suitable output data, the revised transport series will be reported from 2000 onwards only (2005 for rail). Data prior to 2000 will no longer be presented in the newly published ECUK data tables, however the existing publications will remain available to users on the DESNZ website. This approach places greater emphasis on the more recent part of the time series, where source data are generally more consistent and reliable. *We welcome views on whether this proposed reporting period is appropriate.*

Further information on the proposed changes to the calculation and interpretation of the revised transport energy intensity series can be provided on request.

As ever, we welcome comments on these changes.

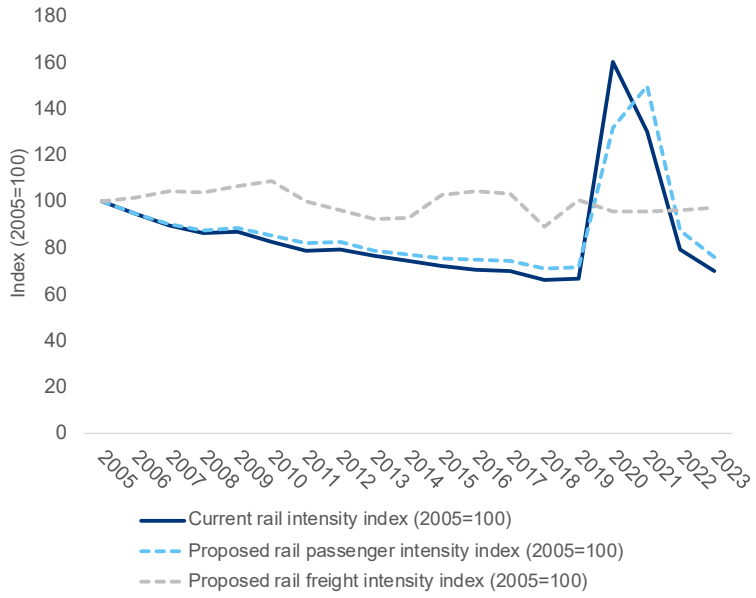
Annex 1. Updates to transport energy intensity figures

Road freight transport energy intensity index (2000 = 100)



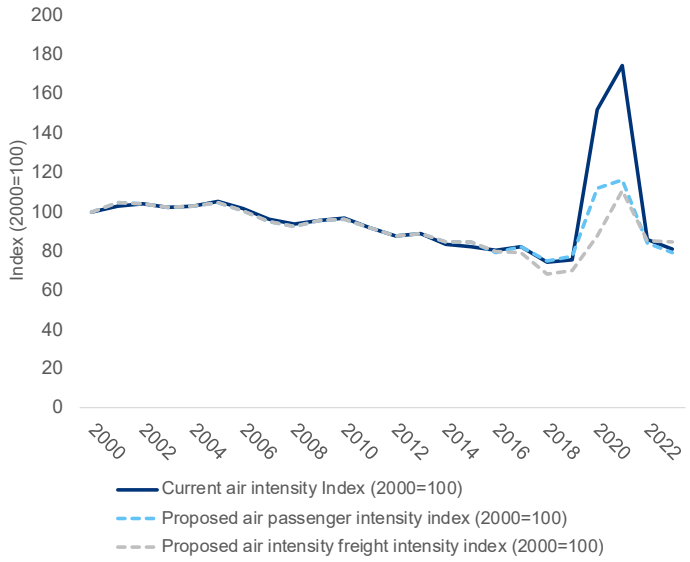
The proposed road freight series uses combined LGV and HGV vehicle-kilometres as the output measure, rather than road freight tonne-kilometres. This reflects the fact that LGVs are no longer included in the published DfT tonne-kilometre series from 2014 onwards, and that DfT advise road freight data before and after 2021 should not be compared following a methodology change.

Rail transport energy intensity index (2005 = 100)



In the proposed rail series energy consumption is split between passenger and freight services, and passenger output is expanded to include underground, light rail and tram services.

Air transport energy intensity index (2000 = 100)



The proposed air series differs from the current series because output is aligned more closely with the coverage of fuel consumption, and separate passenger and freight intensity measures are introduced.

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Update to industrial end use consumption estimates within *Energy Consumption in the UK*

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Key headlines

The Department for Energy Security and Net Zero (DESNZ) publishes data on industrial energy consumption within the annual energy balances that are published in the Digest of UK Energy Statistics (DUKES)[1] in July of each year. An accompanying publication to DUKES, Energy Consumption in the UK (ECUK[2]), is published annually in September. In ECUK, the high-level data from DUKES are broken down into detailed energy consumption estimates using historic assumptions and other data sources. For example, the ECUK consumption tables provide estimates of industrial consumption by UK Standard Industrial Classification (SIC) divisions, and the ECUK end use tables provide a further breakdown of this consumption into specific industrial end uses.

This paper outlines a plan to revise the methodology that is used to generate the industrial end use consumption estimates, and introduce detailed end use estimates for bioenergy and waste and heat for the first time.

This paper provides information on the incorporation of a new data source into ECUK which will provide updated estimates of industrial end use consumption in the UK. This will lead to changes in the way data is presented in ECUK. These changes are detailed throughout, but we are particularly interested to hear from stakeholders and users of the data on the impact of the following:

- Incorporating an updated set of industrial end uses based on up to date research, replacing the end uses previously used in ECUK Table U4,
- Using the most closely aligned research data or historical data to estimate industrial end uses for fuel/sub-sector combinations not covered by the new research (as opposed to not providing estimates for these fuel/sub-sector combinations in ECUK),
- Changing the aggregated end use categories in Tables U1 and U2 to align more closely with the updates to Table U4,
- Changing the format of ECUK Table U4 to show separate end use tables for each fuel,
- Restricting data published in ECUK to 2021 consumption data onwards due to the adoption of the updated industrial end use methodology.

[1] Digest of UK Energy Statistics (DUKES) - GOV.UK

[2] Energy Consumption in the UK - GOV.UK

ECUK industrial consumption

UK energy statistics in the Digest of UK Energy Statistics

The Department for Energy Security and Net Zero (DESNZ) is responsible for publishing data on the UK's energy system. The annual energy balances, which show the UK's production, consumption and trade of energy, are published in the Digest of UK Energy Statistics (DUKES). For industrial energy demand, data is collected in line with the requirements of the International Energy Agency (IEA)[3], which aggregates industrial consumption into sectors that are defined by the UK Standard Industrial Classification (SIC) codes (and the international equivalent frameworks)[4].

Energy Consumption in the UK

The DESNZ publication Energy Consumption in the UK (ECUK) builds on the data released in DUKES to provide a more detailed breakdown of end-use energy consumption. The methodology for ECUK differs from DUKES as it uses a mix of historic assumptions and other data sources to estimate consumption at a greater level of disaggregation. For the industrial sector ECUK estimates the consumption for specific industry groupings (SIC divisions) and different types of industrial processes (e.g. high temperature processes, refrigeration).

For ECUK 2025 (published September 2025) the methodology for estimating industrial consumption at the SIC division (2-digit) level was updated. This was discussed in a special feature article in the June 2025 Energy Trends publication[5]. These breakdowns of industrial consumption by SIC division are available in ECUK Consumption Tables C3.1 and C3.2.

End use industrial consumption by SIC division

ECUK Table U4 breaks down the consumption data presented Tables C3.1 and C3.2 further into specific end use processes. Up to ECUK 2025 this table covered four fuels (solid fuels, oil, gas and electricity) and nine industrial end uses (high temperature process, low temperature process, drying/separation, motors, compressed air, lighting, refrigeration, space heating and other).

The data in Table U4 is generated using a static reference table which defines the proportion of consumption in each SIC division that is allocated to each end use. This reference table is applied to each year of data from Table C3.1 and C3.2 to generate the end use data. The reference table currently in use in ECUK is shown in Table U7.

The methodology used to generate the industrial end use estimates has been a focus for updating in ECUK 2026 because:

- The end use reference table has been in use in a broadly unchanged form for over 10 years due to the lack of any more recent UK specific research on industrial end use consumption. The energy usage patterns within industry have likely changed in the subsequent years, meaning the reference table may no longer accurately reflect the energy consumption within modern UK industries.
- The UK fuel mix has evolved over time. Of particular relevance to ECUK industrial end uses, consumption of bioenergy & waste and heat has increased and is now covered within the DUKES data. ECUK has previously been unable to provide end use estimates for these fuels as they were not covered in the original data used to generate the industry end use reference table.

Methodological updates for ECUK 2026

IDAE study and monitoring of energy consumption in industry for statistical purposes

The Spanish Instituto para la Diversificación y Ahorro de la Energía (Institute for Energy Diversification and Saving) and Ministerio para la Transición Ecológica y el Reto Demográfico (Ministry for the Ecological Transition and the Demographic Challenge) have published the results of a study on the monitoring of energy consumption in the industry sector (referred to in this paper as the IDAE study or IDAE data). This study consisted of a survey of more than 18,000 industrial establishments followed by on-site measurements of energy consumption in 200 establishments. The results from this study have been published in a series of

[3] Questionnaires – Data and statistics - IEA

[4] Information on SIC codes can be found at: UK Standard Industrial Classification of Economic Activities - Office for National Statistics

[5] Energy Trends: June 2025, special feature articles - GOV.UK

fifteen publications[6]. Data was collected for industry sectors and end uses according to the classifications defined in the Eurostat industry questionnaire[7].

The IDAE study gives estimates of industrial consumption at the 2-digit SIC code[8] level and the industrial end uses for which this consumption has been used. The publication of such a detailed and high-quality data set presents a unique opportunity to incorporate updated industrial end use estimates into the ECUK publication. DESNZ has been in contact with colleagues from IDAE who have lent their expertise to this update, and kindly shared their raw data to allow us to conduct a full analysis.

Incorporating the IDAE data into ECUK

DESNZ has conducted a detailed analysis of the IDAE data to assess its suitability for use as a source of information for updating the ECUK industry end use reference table. We have considered overall patterns of industrial consumption in the UK and Spain using IEA data, and have also compared the 2-digit SIC code splits within each industry sector between the IDAE data and the existing ECUK reference table. From this analysis we have concluded there is a sufficient level of similarity between the industrial sectors in the two nations, and that in the absence of UK specific research it is appropriate to use the IDAE data as a proxy for estimates of industrial end use energy consumption in the UK.

Fuels used

The detailed IDAE data set contains information on fuel consumption at a highly disaggregated level consistent with the international energy product definitions. For example, for solid fossil fuels data is presented separately for anthracite, coking coal etc. and for petroleum products the data is presented for LPG, fuel oil etc. For the ECUK end use estimates we intend to use the aggregated IDAE data for the main fuels presented in DUKES and ECUK.

ECUK fuel	IDAE energy product
Solid fuel	Solid fossil fuels
Oil	Oil and petroleum products
Natural gas	Natural gas
Electricity	Electrical energy
Bioenergy & waste	Renewable fuels (without ambient heat)
	Waste (renewable + non-renewable)
Heat	CHP (Heat)
	Other sources of self-generated thermal energy

End uses

The IDAE study collected data against nine different end uses which are consistent with the Eurostat definitions, the only difference being that energy used for heat production is split into three different temperature categories; very high temperature heat (≥500°C), high temperature heat (200°C – 500°C) and low and medium temperature heat (<200°C). The IDAE categories are broadly similar to those currently in use in ECUK, however there is one end use, electrochemical use of energy, which is not present in ECUK. In addition there are two ECUK categories, drying/separation and compressed air, which are not given in the IDAE data.

For ECUK we intend to broadly adopt the IDAE categories as the they are consistent with the international standard definitions. However, we will maintain the separate high temperature and low temperature heat production categories as used in the previous ECUK end use reference table. This means there will no longer be separate categories in ECUK for drying/separation and compressed air. Any consumption for these end uses will implicitly be included within the 'other' category. The table below represents how the categories we propose to use in ECUK 2026 relate to the categories from the IDAE study and the previous ECUK publications. *We invite specific user feedback on this proposed change in end use categories used in ECUK*.

[6] Estudio de consumos, costes y usos energéticos en la industria | IDAE

[7] Eurostat – Industry final energy consumption questionnaire

[8] The publication presents data for CNAE codes (Clasificación Nacional de Actividades Económicas in Spain) which, like the UK SIC 2007 framework, is aligned with the EU Statistical Classification of Economic Activities (NACE) Rev 2.

IDAE end use category	ECUK 2026	ECUK 2025
Energy used for heat production (very high temperature heat: >= 500ºC) Energy used for heat production (High temperature heat: 200ºC – 500ºC)	High temperature heat production (≥ 200ºC)	High temperature process
Energy used for heat production (Low and medium temperature heat: < 200ºC)	Low temperature heat production (< 200ºC)	Low temperature process
Energy used for cold production (refrigeration)	Cold production (refrigeration)	Refrigeration
Electrochemical use of energy	Electrochemical uses	-
Mechanical energy use (engines)	Mechanical uses (engines)	Motors
Energy used for space heating and cooling (air conditioning) and water heating	Space heating and cooling and water heating	Space heating
Energy used for lighting and electrical appliances	Lighting and electrical appliances	Lighting
Non-specified use of energy	Non-specified use of energy	Drying / separation* Compressed air Other

*some consumption for drying/separation may also be within the heat production end uses

Industry sectors

The IDAE study presents data for industry subsectors as specified in the Eurostat industry questionnaire. This is broadly equivalent to how industry subsectors are presented in DUKES/ECUK and other international standards, with some minor differences (see Annex 1 for more detail). As mentioned previously, the IDAE has kindly shared their raw data at SIC code level with DESNZ. This has allowed us to generate new industrial end use estimates for ECUK for each SIC code individually, meaning the outputs are not impacted by the use of slightly different industry sector classifications between the IDAE study and the UK energy statistics in DUKES and ECUK.

New reference tables

Using the IDAE data new industry end use reference tables have been generated for use in ECUK for each fuel. These are presented in full in a workbook accompanying this publication. End uses splits have been calculated for each fuel and SIC code pair where possible[9]. Where the IDAE study did not collect data for a particular SIC code / fuel combination, IDAE data from other SIC codes within the same industry sector has been used to estimate the end use splits. For example, for solid fuels the IDAE study contained no end use consumption data for SIC code 26 within the electrical engineering sector. Therefore end use consumption data for the other SIC code within this sector (SIC code 27) has been used as the best estimate of end use consumption.

For cases where there were no IDAE data collected for a whole sector, end use estimates from the previous ECUK publications have been carried forward (grouping drying/separation, compressed air and other into one new non-specified use of energy end use).

We would welcome specific user feedback on whether this approach (where all consumption is assigned to end uses) is preferable to not using estimated end use splits (with the consequence being that end use consumption for some SIC divisions would be listed in ECUK as unknown).

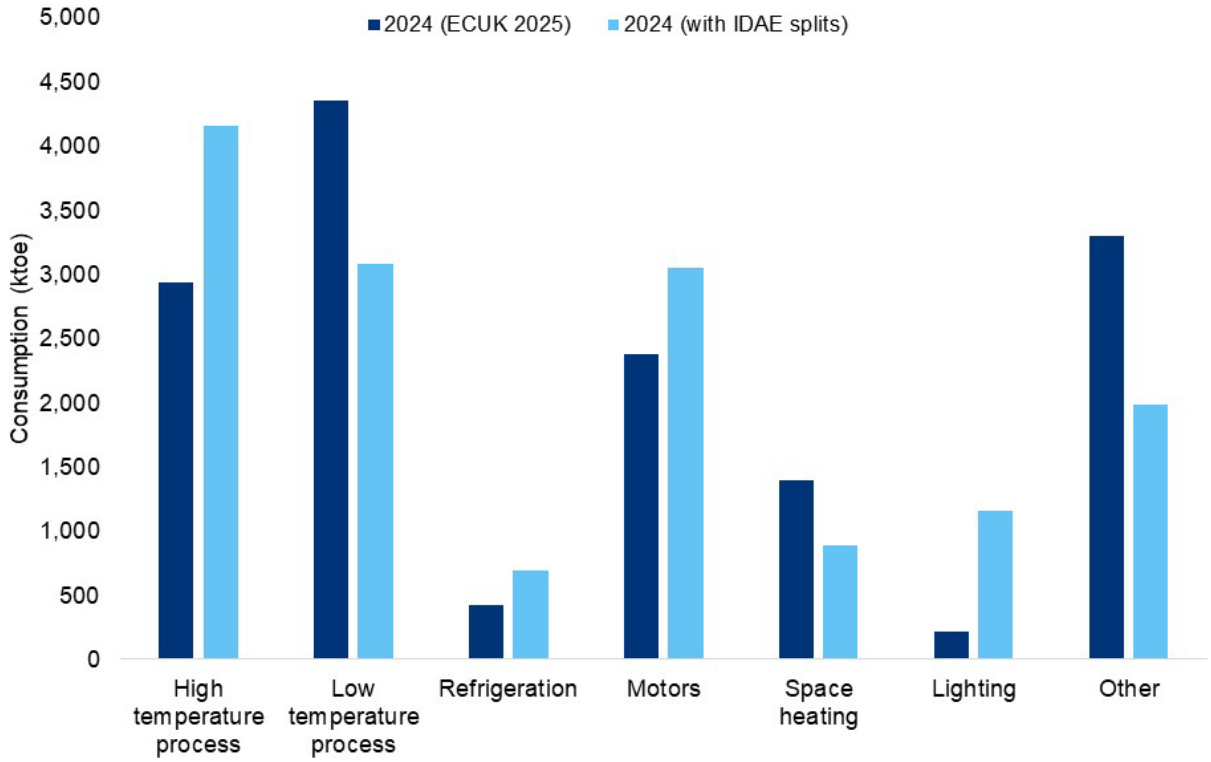
We are aware that during the data collection for the IDAE study large industrial complexes faced considerable challenges in differentiating consumption strictly linked to refining activities (SIC 19) from that for other chemical and petrochemical activities (DUKES chemicals sector, SIC 20 and 21). Therefore the end use consumption estimates for SIC codes 20 and 21 in the new reference table are likely to have been impacted by the inclusion of some consumption related to SIC 19, and end use estimates for SIC 20 and 21 should be considered to have a higher level of uncertainty than some of the other industry sectors and SIC codes.

[9] End use energy consumption for manufacture of coke and refined petroleum products (SIC 19) and the construction sector (SIC 41 to 43) have not previously been included within ECUK. Therefore IDAE estimates for these industry sectors will not be incorporated into ECUK 2026.

Impact on end use estimates

The chart below shows the UK industry sector energy consumption data for 2024 (as shown in ECUK 2025) and a provisional estimate of how this would be impacted by implementing the IDAE end use splits. A full breakdown of these changes by fuel is shown in Annex 2. Note that this excludes the end use consumption for bioenergy & waste and heat as these were not included in in ECUK 2025 end use estimates. End use consumption for these fuels will be included in ECUK 2026 when the IDAE data is fully implemented.

The changes shown in the chart below are likely to be a mixture of actual changes in how industry consumes energy since the original ECUK research and a higher level of data quality in the new IDAE study. For example, in the existing ECUK reference table many SIC divisions have no electricity consumption apportioned to lighting, which does not seem plausible. The new industrial end use reference table for electricity apportions electricity consumption to lighting and appliances for each SIC division (ranging for 4% to 36%), which would seemingly provide a more accurate reflection of how electricity is consumed.



Implementation in ECUK 2026

The intention is to implement the new industrial end use reference table in ECUK 2026. To do this we are proposing to make some changes to the way the industrial end use data is presented.

- Table U4 will be adjusted to show only a single years' worth of data, i.e. in ECUK 2026 detailed industrial end use consumption data will be displayed for the calendar year 2025. This mirrors the approach taken in other areas of ECUK e.g. Table C3.1 and Table U6, where for the most disaggregated data a full table presentation is shown only for the most recent year.
- Table U4 will also be adjusted to present separate tables for end use consumption for each fuel (solid fuels, oil etc.). The intention is that showing the data in this form is clearer for users as the impact of the consumption split between end uses for each fuel will be much easier to read. This is in preference to the current presentation where each end use is presented together consecutively in a very wide table.
- To supplement the reformat of Table U4, a new table will be added showing a time series of industrial end use consumption in a two-dimensional 'flat file' format. This will allow users to better interrogate trends in the data over time, and aligns with the new presentation of Table C3.1 and Table C3.2 introduced in ECUK 2025. This table will cover data from 2021 to 2025 in ECUK 2026, and going forwards ECUK will continue to show the industrial end use estimates for the five most recent years of data. Industrial end use consumption for years prior to 2021 will no longer be presented in ECUK, however the previous estimates using the existing ECUK methodology will remain available to access on the DESNZ website.

The implementation of new industrial end use categories in Table U4 will lead to some minor changes in Tables U1 and U2, which aggregate the data across sectors and provide a longer time series. Both tables will

now present data for the latest five years, aligning with the date range in Table U4[10]. Table U2 will be adjusted to include the full suite of new industrial end uses. In the 'total' section of Table U2 and Table U1, an updated set of grouped end uses will be used for aggregating across the domestic, industry and services sectors. The are shown in the table below.

Table U1/U2 category	Domestic	Industrial	Services
Space heating and cooling and water heating	Space heating Water heating	Space heating and cooling and water heating	Space heating Water heating Cooling and ventilation
Heat production (industrial)		Heat production (>=200ºC) Heat production (<200ºC)	
Cooking/catering	Cooking/catering		Cooking/catering
Cold production (refrigeration)		Cold production (refrigeration)	
Lighting and appliances	Lighting and appliances	Lighting and appliances	Computing Lighting
Industrial processes		Electrochemical use Mechanical energy use (engines)	
Other		Non-specified use	Other
Construction		Construction	
Unknown (unclassified consumption)		Unknown (unclassified consumption)	

We invite comments from users on the impact of these changes to the presentation of end use data in ECUK tables U1, U2 and U4.

DUKES 2026 energy balance methodology changes

Alongside the publication of this article there is a separate Energy Trends special feature article on planned changes to sector definitions in DUKES 2026. In some cases SIC codes will move between sectors or sectors will be combined/disaggregated. For clarity for users, in this paper we have continued to use the industry sectors from DUKES and ECUK 2025 as the overall methodology changes are still in development and subject to change based on user feedback. When published in ECUK 2026 the industrial end use consumption estimates discussed in this paper will be adjusted to maintain consistency with the energy balances presented in DUKES.

Next steps

Pending feedback from users after the publication of this article, the new methodology for estimating industrial end uses will be incorporated into the ECUK 2026 publication in September 2026. Our intention with updating ECUK in the manner described in this article is to provide a higher quality set of industrial consumption end use estimates, with increased transparency for users on how the end use reference table has been derived. These changes represent further developments in our ongoing attempts to review and update the data and assumptions feeding into ECUK. Going forward we intend to continue these efforts, and will inform stakeholders of any planned changes in future Energy Trends articles ahead of implementation within ECUK.

As ever, we welcome comments on these changes.

[10] For consistency across the release, Table U5 will also be adjusted to show the most recent five years of data.

Annex 1. Comparison of industry sectors in the IDAE study and DUKES/ECUK

The differences between the industry sectors used in the IDAE study and those used in DUKES/ECUK, and the SIC codes within each sector, are shown in the table below. These differences have limited impact on the proposals in this paper as the IDAE has made their raw data available to us, allowing calculation of industrial end uses for each individual SIC division (2-digit SIC code).

IDAE industry sector	SIC codes	DUKES/ECUK sector	SIC codes
Mining and quarrying	07 (exc. 7.21), 08 (exc. 8.92) and 09 (exc. 9.1)	Fuel producers	05-07, 09, 19, 24.46, 35
		Mineral products	08, 23
Food, beverages and tobacco	10, 11, 12	Food, beverages etc.	10, 11, 12
Textiles and leather	13, 14, 15	Textiles, leather etc	13, 14, 15
Wood and wood products	16	Other industries	16, 22, 31, 32, 33, 36, 37, 38, 39
Pulp, paper and printing	17, 18	Paper, printing etc.	17, 18
Coke production and petroleum refining	19	Fuel producers	05-07, 09, 19, 24.46, 35
Chemicals and Petrochemicals	20, 21	Chemicals	20, 21
Non-metallic minerals	23	Mineral products	08, 23
Iron and steel industry	24.1, 24.2, 24.3, 24.51, 24.52	Iron and steel	24.1, 24.2, 24.3, 24.51, 24.52, 24.43
Non-ferrous metallurgy	24.4, 24.53, 24.54	Non-ferrous metals	24.4, 24.54
Machinery	25, 26, 27, 28	Mechanical engineering etc.	25, 28
		Electrical engineering etc.	26, 27
Transportation equipment	29, 30	Vehicles	29, 30
Construction	41, 42, 43	Construction	41, 42, 43
Other industrial subsectors	22, 31, 32 and 33*	Other industries	16, 22, 31, 32, 33, 36, 37, 38, 39

* Organisations within SIC 33 were surveyed, but the activity was considered to be part of the services sector for the purposes of energy statistics and therefore outside of the scope of the IDAE study.

Annex 2. Indicative changes to 2024 industrial end use estimates

The table below shows provisional estimates for how end use consumption for 2024 (as presented in ECUK 2025) would change with the use of the new end use reference table derived from the IDAE data. Note that this data is subject to change and the results as presented in ECUK 2026 may differ slightly from the below as a) the end use analysis may be refined ahead of publication, and b) ECUK 2026 will incorporate any revisions to industrial fuel consumption made in DUKES 2026.

Indicative update to industrial end uses by fuel for 2024 consumption data presented in ECUK 2025 (ktoe)

	High temperature process	Low temperature process	Refrigeration	Motors	Space heating	Lighting	Other
Solid fuel	55	-77	0	6	-9	0	25
Oil	-7	-31	1	61	-14	26	-36
Natural Gas	1,519	-461	21	232	-279	45	-1,078
Electricity	-299	-754	248	373	-208	865	-224
Overall	***1,268***	***-1,323***	***270***	***671***	***-510***	***937***	***-1,313***

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