Department for Energy Security & Net Zero

Energy Consumption in the UK 2026: methodology note

About this document

This document provides further information on the data sources and methodology used to create the Department for Energy Security and Net Zero's annual Energy Consumption in the UK statistical release and accompanying data tables. It is updated annually alongside the release.

In this document

Energy consumption in the UK (ECUK) is one of a suite of annual energy statistics publications from the Department for Energy Security and Net Zero (DESNZ). ECUK sources energy consumption data from the DESNZ Digest of UK Energy Statistics (DUKES) and provides further information and context on consumption in the UK, considering long-term trends, detailed end uses and energy intensity.

Energy intensity: ECUK puts the long-term changes in consumption in different sectors into context by analysing alongside other data sources. Official statistics produced by other government departments are sourced to provide an estimate of the output from each sector (for example passenger kilometres travelled in the transport sector). By combining these data with energy consumption an estimate of energy intensity is generated. Trends in energy intensity can demonstrate the impact of changes within a sector. For example increased efficiency of domestic boilers can lead to decreases in the energy intensity within the domestic sector.

Detailed consumption and end uses: ECUK takes the DUKES data and uses the findings from other research to produce estimates in more detail of how energy is being consumed and the final usage for that energy. In the industrial sector consumption for specific industrial processes is estimated at the two-digit standard industrial classification (SIC) code level, giving further insights into industrial processes taking place in the UK. For the domestic and services sectors the final end use for consumption (e.g. lighting/heating) is estimated alongside more disaggregation on which sub-sectors are consuming the energy (e.g. education, military, retail).

Research to estimate detailed end uses can be time-consuming and costly, and is not performed at regular intervals. The research to provide the estimates for ECUK was conducted at different times over recent years, some being over 10 years old. Therefore the ECUK publication often uses similar inputs from year to year, meaning some trends and developments across the various sectors in the UK will not be fully captured by the data.

Whole energy flow: These data are presented for the first time in ECUK 2026. They build on final consumption data by considering end-use efficiencies to categorise energy as either useful, where it services its intended purpose, or rejected, where it does not.

Data in this report are generally quoted in thousand or million tonnes of oil equivalent (ktoe, mtoe), a common unit of energy measurement which enables different fuels to be directly compared and aggregated. One tonne of oil equivalent is set equal to 41.868 gigajoules (GJ) or 11,630 kilowatt hours (kWh).

Final energy consumption

Final energy consumption is the direct consumption of fuels whereas primary consumption relates to the fuel input. Core final consumption data are sourced directly from that section of the energy balances as published in The Digest of UK Energy Statistics (DUKES).

Table C1: Final energy consumption by sector and fuel

- This table provides a summary of sectoral energy consumption by different fuel types. The data for Industry, Transport, Domestic and Services are sourced from DUKES energy consumption by final user data, see DUKES 1.1.5.
- Blast furnace gas is included in coke and breeze up to 1995 and covers electricity transformation, use by ovens and losses. From 1996 onwards, blast furnace gas is included in the total and covers just coke ovens and losses, which is consistent with the methodology used for compiling the energy balances. Data on blast furnace gas consumption can be found within Table C6.

Table C2: Industrial final energy consumption by sub-sector and fuel

- These data provide a breakdown of Industrial energy consumption into 12 industry sectors (plus unclassified usage). These are sourced from DUKES 1.1. Estimates in DUKES 1.1 are, in the main, sourced from surveys of energy suppliers, not end users.
- Industry sectors in DUKES are defined according to the UK Standard Industrial Classification of Economic Activities (SIC) framework. The SIC is used to classify business establishments and other standard units by the type of economic activity in which they are engaged. It provides a framework for the collection, tabulation, presentation and analysis of data and its use promotes uniformity. In addition, it can be used for administrative purposes and by non-government bodies as a convenient way of classifying industrial activities into a common structure. Further information can be found via the Office for National Statistics website.
- The table below shows which SIC codes[1] are included in each industry sub-sector.

Industry sector	SIC 2007 code
Iron and steel	24.1, 24.2, 24.3, 24.51, 24.52
Non-ferrous metals	24.4 (excluding 24.46), 24.53, 24.54
Mineral products	8, 23
Chemicals	20, 21
Mechanical engineering and metal products	25, 28
Electrical and instrument engineering	26, 27
Vehicles	29, 30
Food, beverages & tobacco	10, 11, 12
Textiles, clothing, leather, & footwear	13, 14, 15
Paper, printing & publishing	17, 18
Other manufacturing, wood and wood products	16, 22, 31, 32
Construction	41-43

[1] In April 2026 ONS published an updated SIC 2026 framework, see UK SIC 2026 revision process - Office for National Statistics. ONS anticipate that SIC 2026 will first feed into the 2031 National Accounts (Blue Book). Until then the DESNZ energy balance will continue to be defined as per the SIC 2007 framework.

Table C3.1: Industrial consumption at two-digit SIC level

- Tables C3.1 and C3.2 provide a further breakdown of industry sub-sector data (from Table C2) into SIC divisions (two-digit SIC codes).
- Table C3.1 displays a full breakdown of the two-digit SIC code consumption for the most recent year of data presented in ECUK.
- The proportions used to allocate consumption into SIC codes are derived from estimates of industrial energy usage shown in the Industry Reference Tables.
- Two different reference tables are presented; Reference Table A which provides the estimates for 2017-2020, and Reference Table B which provides the estimates for 2021 onwards. Reference Table B was first introduced in the 2025 edition of ECUK.
- SIC code breakdowns are unavailable for Heat in Tables C3.1 and C3.2.

Table C3.2: Industrial consumption at two-digit SIC level – unpivoted

- Table C3.2 presents a time series from 2017 of the two-digit SIC code level consumption figures presented in flat-file format. See Table C3.1 for further details.

Table C4: Services final energy consumption by sub-sector and fuel

- These data provide a breakdown of services energy consumption into Public Administration, Commercial & Miscellaneous and Agriculture.
- Data are sourced directly from the energy balances compiled for DUKES. From DUKES 2026 some sector definitions were updated to ensure consistency across fuels and improve alignment with international recommendations. See Methodology changes sector definitions DUKES 2026 for further information. ECUK sector definitions have been updated to align with those in DUKES.

Services sector	SIC 2007 code
Public Administration	84-88
Commercial & Miscellaneous	33, 36-39, 45-47, 49-51 (part[2]), 52-53, 55-56, 58-66, 68-75, 77-82, 90-99
Agriculture	01-03

Table C5: Temperature corrected by sector

- These data provide a breakdown of final consumption by sector and a seasonally and temperature adjusted estimate of sectoral consumption. The seasonal adjustment allows for changes due to fluctuations in the weather, enabling underlying trends to be identified.
- Data are sourced directly from the energy balances compiled for DUKES and DESNZ Energy Trends.
- For details of temperature correction see the special feature articles in the June and September 2011 editions of Energy Trends.

[2] Refers to transport services as opposed to energy used for traction in transport

Table C6: Temperature corrected by fuel

- These data provide a breakdown of final consumption by fuel and a seasonally and temperature adjusted estimate of fuel consumption. The seasonal adjustment allows for changes due to fluctuations in the weather, enabling underlying trends to be identified.
- Data are sourced directly from the energy balances compiled for DUKES and DESNZ Energy Trends.
- For details of temperature correction see the special feature articles in the June and September 2011 editions of Energy Trends.

Table C7: Transport energy consumption: further breakdowns

- These data provide an estimate of which sectors are consuming fuel for transportation purposes (from total transport consumption in C1), and also a breakdown of road energy consumption into passenger and freight.
- A number of data sources are used to estimate the sectoral consumption of each mode of transport:
    - Road – Sectoral road petroleum and bioenergy & waste consumption is estimated using Department for Transport National Travel Survey average number of trips made and distance travelled and Road Freight Statistics goods moved data.
    - Rail – Office of Rail and Road passenger rail usage (passenger kilometres) and freight rail usage (freight moved) data.
    - Water – Under current assumptions all consumption is allocated to the industry sector.
    - Air – ONS Travel Trends (number of visits to the UK by overseas residents and visits abroad by mode of travel) and Civil Aviation Authority Passenger Survey.
- The road transport additional breakdown for passenger and freight is derived from Table C8, where cars, buses and motorcycles are classed as passenger transport and light goods vehicles (LGVs) and heavy goods vehicles (HGVs) are classed as freight transport. For bioenergy & waste, for which vehicle type data is not available in Table C8, it is assumed that this has the same passenger/freight split as petroleum.

Table C8: Road transport energy use by vehicle type

- These data provide road fuel consumption by type of vehicle (cars, LGVs, HGVs, buses and motorcycles).
- For petroleum the data are sourced from bespoke modelling by external contractors, which is used to apportion DUKES data for petroleum and white diesel to vehicle type. Within this data LPG and biofuels are not allocated to vehicle type, with total road consumption for these fuels reported instead.
- Biofuels include bioethanol, biogasoline, biodiesel and bio LPGs.
- Electricity and natural gas estimates are derived from the methodologies used to generate the DUKES estimates for these fuels, which use Department for Transport data as an input. See Electricity statistics: data sources and methodologies and Energy Trends: June 2025, special feature article - Methodology changes: gas. For DUKES 2026 the electricity methodology was updated to include consumption estimates for buses for the first time, see Methodology changes for reporting electricity used by road vehicles.

Table C9: Domestic; average consumption

- These data provide the number of households with electricity, the number of gas customers and the average electricity/gas consumption per household (both unadjusted and temperature corrected).
- Data on the number of households are sourced from ONS Families and Households data, and the number of gas customers is sourced from DESNZ Energy Prices and the Northern Ireland Utility

Regulator Market Information. Temperature adjusted consumption is sourced from DESNZ Energy Trends.

Industry reference tables

- These tables show the proportions used to generate the industrial consumption estimates at the two-digit SIC code level that are shown in Tables C3.1 and C3.2.
- Reference Table A (referred to as Reference Table 2 in versions of ECUK prior to ECUK 2025) was informed by the results of the ONS Purchases Inquiry produced in 2007. This table was the only industry reference table in use in ECUK up to and including ECUK 2024. From ECUK 2025 onwards the reference table methodology has been updated (see next bullet), and Reference Table A is now only used for industrial consumption estimates up to and including 2020 data.
- From ECUK 2025 a new reference table (Reference Table B) was introduced and used for the industry SIC division consumption estimates for 2021 data onwards. This table is based on up-to-date analysis of Emissions Trading Scheme (ETS) and Climate Change Agreements (CCA) data, which enable the inclusion of bioenergy & waste consumption estimates for the first time. Due to the level of coverage in the raw data some sectors have higher uncertainty than others, in particular the textiles & leather and engineering sectors. See Energy Trends: June 2025, special feature articles for further information.

Energy intensity

Energy intensity is the amount of energy required to produce one unit of output. A reduction in energy intensity could imply an improvement in energy efficiency. These tables show a comparison between energy consumption (Table C1) and drivers of consumption, such as industrial output or the number of households (for the domestic sector).

Separate data tables are presented for transport, domestic, industry, and services with each table showing energy consumption for that sector / sub-sector, output factor, and consumption per unit of output. An indexed time series using 2000 as the reference year (2005 for rail) is provided to enable comparison of energy intensity measures across the sectors. The output factors used for each sector are sourced from national statistics produced by UK government departments and are detailed in the summaries below.

Table I6 shows the energy intensity effect for all sectors and sub-sectors and provides an estimate of how changes in consumption since 2000 have been affected by changes in the volume of output compared to changes in energy intensity.

Table I1: Primary energy consumption, gross domestic product and the energy ratio

- This table shows temperature corrected inland primary energy consumption and UK GDP at constant prices. Dividing energy consumption by GDP yields the energy ratio, which is expressed as energy consumed per million pounds of GDP, and can be used to understand long-term trends in energy efficiency and the volume of energy intensive activities in the economy (e.g. steel making).
- See paragraphs 1.1.14 to 1.1.16 of DUKES 2016 long-term trends and annexes for further information on the energy ratio.

Table I2: Transport energy intensities

- These data provide the energy intensity for the transport sectors; road, rail, air and water.
- Prior to ECUK 2026 the methodologies for calculating the transport energy intensities were reviewed to ensure the most appropriate data was being sourced from across government and to ensure best alignment between the numerator (consumption data) and denominator (output measure) across all metrics. This led to a small update in the calculation of the road freight intensity and the replacement of the aggregated rail time series into separate intensities for passenger and freight transport. See Energy Trends: June 2026, special feature articles for further information. The air intensity time series was also updated to use a combined output incorporating both passenger and freight traffic. Passenger kilometres are converted to tonne-kilometre equivalents using an assumed average passenger weight of 100 kg (including luggage) and combined with freight tonne-kilometres to produce a single measure of air transport activity. Note this is different to the proposal in the June 2026 special feature article as the methodology was further developed following feedback on the metrics originally proposed.
- For road, air and water consumption figures are taken directly from the ECUK consumption tables. For rail transport the split of consumption is estimated using data from the Office of Rail and Road.
- Output measures are derived from statistics produced by UK government departments.

Sub-sector	Output factor	Source
Road (passenger)	billion passenger kilometres	Department for Transport – Transport Statistics TSGB0101
Road (freight)	billion kilometres	Department for Transport – Road Traffic Estimates TRA0101
Rail (passenger)	billion passenger kilometres	Office of Rail and Road – Passenger Rail Usage
Rail (freight)	billion tonne kilometres	Office of Rail and Road – Freight Rail Usage
Air	billion tonne kilometres	Department for Transport – Transport Statistics TSGB0210 (AVI0201) Civil Aviation Authority - UK Airport Data
Water	billion tonne kilometres	Department for Transport – Transport Statistics TSGB0401

Table I3: Domestic energy intensities

- These data provide the energy intensity in the domestic sectors, and use the number of households, population and disposable income as output factors.

Output factor	Source
Number of households	Office for National Statistics
Population	Office for National Statistics
Disposable income	Office for National Statistics

Table I4: Industry energy intensities

- These data provide the energy intensity in the industry sector using the ONS index of production as an output factor.

Sub-sector	Output factor	Source
Unclassified	ONS; Index of production ONS; GVA	C:Manufacturing L2N8:Construction
Iron and steel, non-ferrous metals	ONS; Index of production	CH:Manufacture of basic metals and metal products
Chemicals	ONS; Index of production	20:Manufacture of chemicals and chemical products CF:Manufacture of basic pharmaceutical preparations
Mechanical, electrical & instrument engineering	ONS; Index of production	CI:Manufacturing of computer electronic & optical products CJ:Manufacture of electrical equipment CK:Manufacture of machinery and equipment
Vehicles	ONS; Index of production	CL:Manufacture of transport equipment
Food, beverages & tobacco	ONS; Index of production	CA:Manufacture of food products beverages and tobacco
Textiles, leather, & clothing	ONS; Index of production	CB:Manufacture of textiles wearing apparel and leather products
Paper, printing, & publishing	ONS; Index of production	CC:Manufacture of wood and paper products and printing
Other manufacturing, wood and wood	ONS; Index of production	CD:Manufacture of coke and refined petroleum products

products (including mineral products)		CG:Manufacture of rubber / plastic products and other non-metallic mineral products CM:Other manufacturing and repair
Construction	ONS:GVA	L2N8:Construction

Table I5: Services energy intensities

- These data provide the energy intensity in the services sector using the ONS gross value added (GVA) as an output factor.

Sub-sector	Output factor	Source
Public administration	ONS:GVA	L2P8:Public administration, national defence, social security L2PA:Education L2PC:Health & social work
Commercial	ONS:GVA	L2NE:Wholesale and retail trade KI8M:Transport, storage and communications L2NQ:Accommodation and food services L2O6:Financial and insurance activities L2OC:Real estate L2OH:Professional, scientific administration and support L2Q5:Other services
Services (excluding agriculture)	ONS:GVA	L2NC: Total services
Agriculture	ONS:GVA	L2KL:Agriculture, forestry and fishing

Table I6: Impact of output and energy intensity changes

- This table shows how the change in energy consumption between 2000 and the latest year has been impacted by changes in output and changes in energy intensity.
- Due to the lack of availability of some output data in the latest year and a time series break in the rail consumption data in the early 2000s transport data is presented in this table as the impact of output and intensity changes from 2005 to the year prior to the latest presented across ECUK. E.g. 2005 to 2024 in ECUK 2026.
- The formulae below show an example of how the impacts of the changes in output and intensity between 2000 and 2025 are calculated, where C_Y = Energy consumption in year Y and O_Y = Output in year Y:

Impact of change in output, $\delta_O = \left(\frac{O_{2025}}{O_{2000}} \times C_{2000}\right) - C_{2000}$

Impact of change in intensity, $\delta_I = (C_{2025} - C_{2000}) - \delta_O$

Primary energy consumption

Final energy consumption is the direct consumption of fuels compared to primary consumption, which relates to the fuel input. Primary consumption is larger than final consumption as it includes losses in transforming fuel to generate electricity and transmission losses. Primary energy consumption data are sourced from the energy balances as published in The Digest of UK Energy Statistics (DUKES) and Energy Trends.

Table P1: Primary energy consumption, actual and temperature-corrected, with mean air temperature

- This table provides the total annual primary energy consumption alongside a temperature corrected comparison and the mean air temperature.
- Data are sourced directly from the energy balances compiled for Energy Trends.

Table P2: Primary consumption, final consumption and primary energy ratio

- This table provides the total primary and final consumption figures and a ratio between the two.
- The primary energy ratio gives an indication of the efficiency of the energy system in delivering final energy.

Whole energy flow

Whole energy flow analysis considers the entire energy system, covering primary energy demand and considering the uses and losses throughout the system through to end use efficiency once energy has been delivered into consumption. Energy flow data are sourced from the energy balances as published in The Digest of UK Energy Statistics (DUKES) and Energy Trends. Useful and rejected energy estimates are modelled using end-use efficiency estimates for various products and appliances.

The whole energy flow data tables and analysis build on special feature articles published by DESNZ (or its predecessors) in June 2019 and March 2025, and are published in ECUK for the first time in 2026. These statistics are currently classed as Official Statistics in development as we are continuing to develop the underlying methodology. As such we are keen to hear feedback from users on these data. Please contact energyconsumption.stats@energysecurity.gov.uk with any comments or feedback.

Table W1: Primary energy allocation by destination

- The table provides a detailed breakdown of where primary energy is used across the whole energy system.
- Data for all destinations up to final energy consumption are sourced directly from the main energy balances in DUKES 1.1.
- Final consumption useful and rejected energy totals are taken from Table W2, see below.
- Heat pump useful energy includes ambient heat captured from the environment. This is additional to recorded energy consumption and is classed as useful energy. Therefore final consumption useful energy plus rejected energy exceeds the final consumption figure by the ambient heat amount.
- The total useful and total rejected energy totals represent the destination of energy across the whole system, including losses upstream of final consumption. Total useful energy is the sum of useful energy from final consumption and 50% of energy industry use. Total rejected energy is the sum of rejected energy from final consumption, transformation, losses and the remaining 50% of energy industry use.
- Transfers and non-energy use are excluded from the total useful and total rejected energy totals.

Table W2: Useful and rejected energy by sector

- This table provides a breakdown of the useful and rejected final energy consumption by sector.
- Useful energy is defined as energy that is utilised for its intended purpose, for example light emitted by a light bulb. Comparatively, rejected energy is defined as energy that does not serve its intended purpose, for example heat emitted by a light bulb.
- In some cases, rejected energy could still serve a useful purpose despite not being the intended end use. For example, heat emitted from a light bulb could contribute to heat demand in winter. However, this analysis does not model that level of complexity, so any energy that does not serve its intended purpose is classed as rejected.
- The methodology for estimating useful energy differs between sectors. For industry estimates are derived at a sub-sector level using data published by the US Department of Energy. For the domestic, services and transport sectors estimates are more granular, and use a combination of end-use splits from the ECUK end-use tables alongside energy efficiency estimates for different end uses (e.g. appliance type, vehicle type).
- There are two main sources of uncertainty in this analysis. The first is the assumed split of energy consumption between individual end uses, such as the proportion of domestic appliance consumption allocated to kettles, microwaves, televisions and other appliances. The second is the assumed efficiency of each end use, such as the proportion of energy consumed by a kettle that is classed as useful rather than rejected. In practice, these two sources of uncertainty are likely to be linked, but they are typically modelled separately in this analysis.
- Energy efficiency estimates are taken from public sources identified from bespoke desk research where possible, and supplemented by internal DESNZ assumptions if appropriate data could not be identified.

Energy efficiency research typically presents results from laboratory testing, which may give different estimates of energy efficiency compared to the eventual real-world performance.

- Historically, due to the resource requirement for researching new data sources, energy efficiency estimates have been updated on an ad-hoc basis, meaning for many years in Table W2 the same estimates are used from year to year. Estimates were originally derived for 2017 data, and were updated again for 2023 data and then 2024 data (with the same estimates also used for 2025 data). Going forwards, we aim to carry out more structured revisions on a regular basis.

Table W3: Useful and rejected energy by end use

- This table provides a more detailed breakdown of how useful and rejected energy estimates are calculated for the most recent year.

Table W4: Total energy flow scenarios

- This table shows a counterfactual scenario for how useful and rejected energy in the latest year would differ if the original end use efficiency estimates applied to the 2017 consumption data were applied to the latest year's consumption patterns.
- Any changes reflect updated assumptions, and are not necessarily indicative of real-world savings due to improved efficiencies.

Assumed efficiencies

- The tab shows the efficiencies used in the useful energy estimates for 2025 data. Further information on the sources used for the efficiencies is available on request, please contact energyconsumption.stats@energysecurity.gov.uk.
- Users may wish to enter their own efficiency factors to understand how the balance between useful and rejected energy can change, and how these efficiencies impact the proportion of final energy consumption that is categorised as useful.

End uses

These tables show how energy is being used, for example for space or water heating. Final energy consumption split by end uses takes the final consumption data from the consumption tables and applies estimated proportions to provide end use data.

For the domestic sector (Table U3) the assumptions are updated each year using data collected for the English Housing Survey and modelled. For the industry sector, end use splits were updated in ECUK 2026 (backdated to 2021 data) to be based on estimates taken from research published by 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), see Energy Trends: June 2026, special feature articles. The splits for the services sector are sourced from the Building Energy Efficiency Survey (BEES) which was undertaken by the Department for Energy Security and Net Zero in 2015 (previously Department for Energy and Climate Change and then Department for Business, Energy and Industrial Strategy).

Table U1: All sectors (excl. transport) energy consumption by end use

- This table provides data on end uses by sector (domestic, industrial, services) and acts as a summary of the more detailed data presented in Tables U2-U6.
- The end uses covered are space heating and cooling and water heating, heat production (industrial), cooking/catering, cold production (refrigeration), lighting and appliances, industrial processes, other, construction and unknown (unclassified consumption). The table below shows how the individual end uses for the sectors are grouped into the aggregated categories.

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 (>500°C) Heat production (200°C-500°C) Heat production (<200°C)	
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
Agriculture			Agriculture
Construction		Construction	
Unknown (unclassified consumption)		Unknown (unclassified consumption)	

Table U2: All sectors detailed consumption by fuel and end use

- This table provides a more detailed summary of sectoral end uses with a breakdown by fuel type (natural gas, oil, solid fuel, electricity, heat and bioenergy & waste).
- The services, domestic and industrial data are mostly sourced from the sectoral data within Tables U3 to U6.

- Industrial energy consumption in the construction sector and unclassified industrial consumption (for which end use breakdowns are not available) are included in Tables U1 and U2 alongside agriculture and transport consumption by fuel type from ECUK Consumption Table C1 to provide a complete picture of sectoral energy consumption in this table.

Table U3: Domestic consumption by end use and fuel

- This table provides data on domestic energy consumption split by end use and fuel type (solid fuels, natural gas, electricity, oil, heat and bioenergy & waste).
- Domestic consumption data are sourced from ECUK Consumption Table C1 and separated into end uses according to the proportions estimated using data collected for DESNZ Fuel Poverty statistics. The fuel poverty statistics draw on data collected for the English Housing Survey conducted by the Ministry of Housing, Communities and Local Government.
- From ECUK 2025 the electricity – lighting estimates have been updated to more accurately capture the reduction in electricity requirement through the introduction of more energy-efficient lightbulbs.

Table U4.1: Industry consumption by end use and two-digit SIC code

- This table provides data on industrial energy consumption split by two-digit SIC code, end use and fuel type (solid fuels, oil, natural gas, electricity, bioenergy & waste and heat). The industry sectors covered in Tables U4.1 and U4.2 are the same as those used in Tables C2/C3, apart from unclassified and construction which are not included in this table.
- Table U4.1 displays a full breakdown of the industrial end use consumption for the most recent year of data presented in ECUK.
- Industrial consumption data by SIC and fuel are sourced from ECUK Consumption Table C3.1 and C3.2 and separated into end uses according to the proportions based on end use data from survey information. The proportional splits are detailed in Table U7.
- End uses in the industrial sector are perhaps the most difficult to estimate considering the varied characteristics ranging from heavy industry, such as iron and steel, to those sub-sectors requiring lower grade heat for processing. There are also end uses relating to building services which are difficult to differentiate from processing related consumption.
- The methodology for estimating the industrial end uses was updated in ECUK 2026, see Energy Trends: June 2026, special feature articles.
- The research from which the methodology for estimating industrial end uses is derived collected data on end uses consistent with the Eurostat energy product definitions, which are shown in the table below. From ECUK 2026 these are the end use categories adopted in Tables U4.1 and U4.2, with the exception of energy used for heat production, which in ECUK is separated into distinct categories for low and medium temperature heat (<200°C), high temperature heat (200-500°C) and very-high temperature heat (>500°C).

Industrial end use	Definition
Energy used for heat production	Covers both the process and non-process use of energy for heating, including energy used for space heating when office buildings are heated with energy produced by the process or residual from it. It includes both the low and medium temperature heat (≤200°C), as well as the high temperature heat (>200°C)
Energy used for cold production (refrigeration)	Covers both the process and non-process use of energy for cold production, including energy used for cooling when office buildings are cooled with energy produced by the process or residual from it.
Electrochemical use of energy	Covers all energy used to convert electrical energy to chemical energy and vice-versa. It includes fuel cells, photo electrochemicals, and energy storage systems such as batteries, super-capacitors or ultra-capacitors.

Mechanical energy use (engines)	Covers all electricity or fuels used to power any engines (stationary or traction), be them related to the process or not.
Energy used for space heating and cooling (air conditioning) and water heating in office buildings	If a complete split between process and non-process use of energy for heating and cold production is not possible (for instance if office buildings are heated or cooled with energy produced by the process or residual from it), this category would cover only the part of the energy used by the industrial branch which can be identified as non-process related (such as offices that are separated from the main industrial buildings, or that use separate sources of energy)
Energy used for lighting and electrical appliances (including ICT [Information and communications technology]-related)	Quantity of energy not directly and specifically used for purposes specified previously (heating, cooling, electrochemical and mechanical processes).
Non-specified use of energy	Any energy not used for any of the purposes described in the previous categories

Table U4.2: Industry consumption by end use and two-digit SIC code – unpivoted

- Table U4.2 presents a time series for the latest five years of the two-digit SIC code level industrial end use consumption figures presented in flat-file format. See Table U4.1 for further details.

Table U5: Services (excl. agriculture) consumption by sub-sector and end use by fuel

- This table provides data on services energy consumption split by services sector (Community, arts and leisure, Education, Emergency Services, Health, Hospitality, Military, Offices, Retail and Storage), fuel type (electricity, natural gas, oil, solid fuel, heat and other (which includes bioenergy & waste and coal)) and end use (catering, computing, cooling & ventilation, hot water, heating, lighting and other).
- Services consumption data are sourced from ECUK Consumption Table C1 and separated into end uses according to the proportions detailed below.
- The end use estimates used are based on the Building Energy Efficiency Survey (BEES) which was conducted by Department for Energy Security and Net Zero in 2015 (previously Department for Energy and Climate Change and then Department for Business, Energy and Industrial Strategy).

Table U6: Services (excl. agriculture) detailed consumption by sub-sector, end use and fuel

- This table provides a further breakdown of the services consumption from Table U5 into detailed sub-sectors.
- Proportional splits used to apportion end uses are also sourced from the BEES survey data.
- The sub-sectors used in this table are not currently mapped to SIC codes.

Table U7: Industry proportions applied to final energy consumption figures in Table U4.1 and U4.2.

- This table provides the end use proportions used to apportion industrial consumption data.
- These are applied to the data in ECUK Table C3.1 and C3.2, industrial consumption at the two-digit SIC code level, to provide the estimates of end use and fuel type in Table U4.1 and U4.2.
- The estimates for these end use splits were updated for ECUK 2026, see Energy Trends: June 2026, special feature articles. The industrial end use estimates are derived from research conducted in Spain, which are considered to be the best current proxy for the UK industry. We intend to keep this

methodology under review, and therefore would welcome any feedback to help inform future developments.

Table U8: Electricity consumed by heat pumps

- This table provides estimates of the electricity consumed by heat pumps in the domestic sector and for other final users (industry and services).
- The calculations used to estimate the heat pump consumption data are detailed below. See the DESNZ Renewables methodology note for further information.

Heat pumps

Generation from heat pumps is not measured directly, therefore estimates are calculated using a combination of an established methodology, other data sets and assumptions; the stock of heat pumps, the average capacity and hours of operation, and the Seasonal Performance Factor (SPF). The SPF is a measure of the efficiency of heat pumps based on how ambient heat captured compares to the electricity consumed by the heat pump. For statistics relating to heat pumps published in DUKES and ECUK, DESNZ has adopted the international standard methodology detailed in the UN Energy Statistics Compilers Manual (box 6.5 on page 115), which is in turn based on Annex VII of The European Union Directive.

The first step of the calculation for electricity consumed is to estimate the total generation (Q_{usable}) by heat pumps including ambient heat;

$$Q_{usable}\ (GWh) = C * N_{inst} * H_{HP}$$

Where:

	C	Average capacity (GW)
	N_{inst}	Stock of heat pumps
	H_{HP}	Average hours of operation

Total generation is then apportioned between ambient heat and electricity consumed by the heat pumps using the SPF;

$$\text{Ambient Heat (GWh)} = Q_{usable} * (1 - 1/SPF)$$

$$\text{Electricity consumed by the heat pump} = Q_{usable} * (1/SPF)$$

The stock of heat pumps is estimated using annual heat pump sales data, alongside an assumption for average lifespan to deduce the proportion of new installations versus replacements. This differs from other DESNZ statistics (e.g. Heat Pump Deployment statistics).

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