



Department
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Future changes to Energy Consumption in the UK

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Future changes to Energy Consumption in the UK

Energy Consumption in the UK (ECUK) was first released over a decade ago to bring together a wide range of published data on energy use. Through the raw data and subsequent secondary analysis, the statistics examine changes since 1970, but with greater focus since 1990. The format of this release has changed over the years, following varying degrees of consultation with users: from a hard copy publication to an expanded range of internet only tables with a complementary suite of fact-sheets containing commentary.

Over time, the availability of information for inclusion in ECUK, and the associated uses of energy data, have changed:

- Data on headline energy use by fuel continues to be collected from the energy companies, and is published in the Digest of UK Energy statistics; with the increasing proportion of energy coming from renewable sources, analysis of this data has continued to expand.
- Data on use of energy in households has expanded through work such as of the National Energy Efficiency Data (NEED) framework¹; the promotion of domestic energy efficiency policies has provided a variety of associated administrative data sources; new statistical series have been developed by DECC on deployment and associated metrics relating to feed-in tariffs, renewable heat, green deal, ECO, and smart meters.
- Data on services and industrial energy has become increasingly out of date. One of the key sources of detailed industrial energy use was the ONS Purchases Inquiry (PI); this has not been carried out for a number of years and as such the latest data from that survey cannot robustly be extrapolated to reflect current energy uses. The ONS are planning to reinstate the PI, with data relating to 2016 being made available in 2018.
- Data contained in a few tables within ECUK are available elsewhere online. This is typically within the transport chapter where data on underlying factors affecting the use of energy for transport – such as kilometres (km) driven, number of journeys, and mode of transport, continues to be published by the Department for Transport in its “Transport Statistics Great Britain”² and associated statistical releases.

In addition to ECUK, a series of complementary releases – such as the Energy Efficiency Deployment Office Statistical Summary³, and the development of the NEED framework - have been released since.

Much of the end-uses for services and industrial energy information remains modelled, with some models being developed over 10 years ago, and based on sectorial level data that no longer reflects the structure of non-domestic energy users. To help fill this gap, DECC are undertaking both quantitative and qualitative research projects to improve our knowledge of non-domestic energy use and new outputs from this work are planned for inclusion in future

¹ <https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework>.

² <https://www.gov.uk/government/collections/transport-statistics-great-britain>.

³ <https://www.gov.uk/government/publications/energy-efficiency-strategy-2013-update>.

editions of ECUK; these include Non-domestic NEED⁴, more detailed use of policy linked administration data, and the Building Energy Efficiency Survey research project⁵.

As such the value of large sections of the ECUK publication are currently less than it was when launched and is in a transitional period prior to new data sources being available for the industrial and service sector.

Our plans for the future

Over the coming two years, DECC plan to reshape and refocus the information contained within the ECUK release.

Information that is currently directly available from other non-DECC published sources – such as Transport Statistics Great Britain - will not be duplicated within the ECUK release. These tables will be clearly marked and web links to the published material will be provided.

Where the underlying information behind the calculations is considered not to reflect the current situation, tables will not be updated until more robust information becomes available. This mainly reflects the industrial and service sector chapters, and associated uses of this data in the overall chapter. The current published material for these tables will remain on the ECUK part of the .gov.uk website until it can be updated through other sources.

Information on energy use in the domestic sector will continue to be developed, and over the coming year a new quarterly statistical report on domestic energy use and associated policies aimed in the household sector will be produced; this will build on and incorporate the content of the existing Green Deal / ECO / Insulation stats release. Some data sources will change – for instance different modelling methods will be used to produce some end uses of energy data. Other data sets will be obtained from the administration of domestic energy efficiency and other policies will be used to develop this release.

As a result of using different data sources, some tables will be updated on a phased basis and so not all data will become available at the end of July when ECUK has previously been updated. However data will be released as soon as it has been produced and quality assured, as required by the code of practice for official statistics. For the 2014 release, many tables will be released on 31 July 2014, however some will be updated on 25 September 2014. The following table shows the current update plans for the 2014 release.

Any questions relating to these changes should be sent to Julian Prime at:
EnergyEfficiency.Stats@decc.gsi.gov.uk.

⁴ <https://www.gov.uk/government/publications/the-non-domestic-national-energy-efficiency-data-framework-nd-need>.

⁵ <https://www.gov.uk/government/collections/non-domestic-buildings-energy-use-project>.

Table number in publication (2013)	Table Name	To be published:	Link provided to another publication:
Overall			
1.01	Total primary energy consumption unadjusted and temperature corrected and mean air temperatures 1970 to 2013	July	-
1.02	Final energy consumption by fuel, by sector in primary energy equivalents 1970 to 2013	July	-
1.03	Primary energy required per 1 tonne of oil equivalent of final energy demand 1970 to 2013	September	-
1.04	Non transport energy consumption by end use 1990, 2000, 2010, 2011, 2012 and 2013	September	-
1.05	Final energy consumption of energy products by sector 1970 to 2013	July	-
1.06	Final energy consumption by fuel 1970 to 2013	July	-
	Overall energy consumption for heat and other end uses by fuel 2013	September ²	-
1.07	Overall energy consumption for heat and other end uses by fuel 2012 - provisional estimate	September ²	-
1.08	Overall energy consumption for heat and other end uses by fuel 2011	September ²	-
1.09	Overall energy consumption for heat and other end uses by fuel 2010	September ²	-
1.10	Temperature corrected final energy consumption by sector and fuel 2002 to 2013	July	-
1.11	Output and intensity factors affecting the change in final energy consumption 1990 to 2012	July	-
1.12	Factors affecting the overall change in primary energy demand between 1990 and 2013	July	-
1.13	Factors affecting conversion losses between 1990 and 2013	July	-
1.14	Energy intensity by sector, and Gross Domestic Product 1970 to 2013	July	-

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Table number in publication (2013)	Table Name	To be published:	Link provided to another publication:
Transport			
2.01	Transport energy consumption by type of transport and fuel 1970 to 2013	July	-
2.02	Road transport energy use by vehicle type, split by DERV and petrol 1970 to 2013	July	-
2.03	Transport energy consumption re-allocated to domestic, industrial and service sectors 1990 to 2012	July	-
2.04	Passenger kilometres by mode 1970 to 2011	Not updated ³	TSGB, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/259243/tsgb0101.xls
2.05	Trip distance per person per year by main mode and purpose 1985 to 2011	Not updated ³	NTS, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/35613/nts0410.xls
2.06	Freight tonne-kilometres by road, rail, air, water and pipeline on a 'Goods moved' basis 1970 to 2011	Not updated ³	TSGB, https://www.gov.uk/government/statistical-data-sets/tsgb02 Aviation: https://www.gov.uk/government/statistical-data-sets/avi02-employment-and-flight-destinations
2.07	Car use per person and car occupancy rates in Great Britain 1970 to 2011	Not updated ³	TSGB:https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/259243/tsgb0101.xls https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/200181/nts0905.xls
2.08	Fuel consumption factors for cars and lorries 1978 to 2011	Not updated ³	DfT, https://www.gov.uk/government/statistical-data-sets/tsgb03 (TSGB0303)
2.09	Passenger numbers and seat occupancy rates for UK airlines 1990 to 2011	Not updated ³	Aviation: https://www.gov.uk/government/statistical-data-sets/avi02-employment-and-flight-destinations
2.10	Output and intensity factors affecting changes in transport energy use between 1990 and 2012	July	-
2.11	Energy intensities by road passenger, road freight and air transport 1970 to 2012	July	-

Table number in publication (2013)	Table Name	To be published:	Link provided to another publication:
Domestic			
3.01	Domestic energy consumption by fuel in terms of primary energy equivalents, 1970 to 2013	July	-
3.02	Domestic energy consumption by end use and fuel in primary energy equivalents, 1990 to 2013	September	-
3.03	Domestic energy consumption by fuel, 1970 to 2013	July	-
3.04	Domestic energy consumption by end use, 1970 to 2013	September	-
3.05	Domestic energy consumption by end use and fuel, 1990 to 2013	September	-
3.06	Internal and external temperatures, 1970 to 2013	September	-
3.07	Average domestic gas and electricity UK, 2008 to 2013	July	-
3.08	Overall drivers of energy consumption, 1970 to 2013	Part in July & part in September	-
3.09	Standard Assessment Procedure (SAP) ratings, 1970 to 2012	September	-
3.10	Total electricity consumption by household domestic appliances, 1970 to 2013	September	-
3.11	Household average daily electrical use, 2010-11	Not updated ⁴	-
3.12	Number of appliances owned by households in the UK, 1970 to 2013	July	-
3.13	Total stock by energy rating in the UK, 1996 to 2013	July	-
3.14	Percentage of households owning household domestic appliances, 1970 to 2012	July	-
3.15	Energy consumption of new appliances, 1990 to 2013	July	-
3.16	Installed central heating by type in UK, 1970 to 2012	September	-
3.17	Boiler types by tenure in UK, 1975 to 2012	September	-
3.18	Boiler types by tenure in the UK, 2008 to 2012	September	-
3.19	Ownership of loft insulation in the UK, 1976 to 2014	July	-
3.20	Ownership of cavity wall insulation in the UK, 1976 to 2014	July	-
3.21	Installed double glazing in UK, 1976-2012	September	-
3.22	Installed hot water tank insulation in UK, 1976-2012	September	-

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Table number in publication (2013)	Table Name	To be published:	Link provided to another publication:
Domestic			
3.23	Ownership of solid wall insulation in the UK, 2008 to 2014	July	-
3.24	Number of measures installed and energy savings in the Energy Efficiency Commitment (EEC)/Carbon Emissions Reduction Target (CERT)	Not updated ³	https://www.ofgem.gov.uk/ofgem-publications/58682/finalcertupdate19300413.pdf (May update)
3.25	Number of measures delivered by suppliers in the CERT programme	Not updated ³	https://www.ofgem.gov.uk/ofgem-publications/58682/finalcertupdate19300413.pdf (May update)
3.26	Mean and median electricity and gas consumption by dwelling type, England 2005 to 2011	Not updated ³	https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework
3.27	Mean and median electricity and gas consumption by property age, England 2005 to 2011	Not updated ³	https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework
3.28	Mean and median electricity and gas consumption by floor area (metres squared), England 2005 to 2011	Not updated ³	https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework
3.29	Mean and median electricity and gas consumption by number of bedrooms, England 2005 to 2011	Not updated ³	https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework
3.30	Mean and median electricity and gas consumption by tenure, England 2005 to 2011	Not updated ³	https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework
3.31	Mean and median electricity and gas consumption by household income, England 2005 to 2011	Not updated ³	https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework
3.32	Mean and median electricity and gas consumption by number of adults, England 2005 to 2011	Not updated ³	https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework
3.33	Housing Characteristics: Heat Loss Parameter	September ¹	-
3.34	Housing Characteristics: Boiler Efficiency	September ¹	-
3.35	Domestic energy intensity, 1970 to 2013	July	-
3.36	Specific energy consumption for households, 1990 to 2013	July	-

Table number in publication (2013)	Table Name	To be published:	Link provided to another publication:
Industry			
4.01	Industrial energy demand by fuel, in primary energy equivalents 1970 to 2013	July	-
4.02	Industrial energy consumption by fuel, 1970 to 2013	July	-
4.03	Industrial energy consumption by main industrial consuming group, 1990 to 2013	July	-
	Industrial energy consumption at two digit SIC2007 level by fuel type, 2013	September ²	-
	Industrial energy consumption by end use (different processes), 2013	September ²	-
4.04	Industrial energy consumption at two digit SIC2007 level by fuel type, 2012	September ²	-
4.05	Industrial energy consumption by end use (different processes), 2012	September ²	-
4.06	Industrial energy consumption at two digit SIC2007 level by fuel type, 2011	September ²	-
4.07	Industrial energy consumption by end use (different processes), 2011	September ²	-
4.08	Industrial energy consumption at two digit SIC2007 level by fuel type, 2010	September ²	-
4.09	Industrial energy consumption by end use (different processes), 2010	September ²	-
4.10	Industrial energy consumption at two digit SIC2007 level by fuel type, 2009	September ²	-
4.11	Industrial energy consumption by end use (different processes), 2009	September ²	-
4.12	Industrial energy consumption at two digit SIC2007 level by fuel type, 2008	September ²	-
4.13	Industrial energy consumption by end use (different processes), 2008	September ²	-
4.14	Factors that affect industrial energy consumption, 1970 to 2013	July	-
4.15	Output and intensity factors affecting changes in industrial energy use, 1990 to 2012	July	-
4.16	Energy intensity (energy consumption per unit of production) by main industrial group, 1970 to 2013	July	-

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Table number in publication (2013)	Table Name	To be published:	Link provided to another publication:
Services			
5.01	Service sector energy consumption by fuel in primary energy equivalents, 1970 to 2013	July	-
	Service sector energy consumption by sub-sector and end use by fuel, in primary energy equivalents 2013	September ²	-
5.02	Service sector energy consumption by sub-sector and end use by fuel, in primary energy equivalents 2012	September ²	-
5.03	Service sector energy consumption by sub-sector and end use by fuel, in primary energy equivalents 2011	September ²	-
5.04	Service sector energy consumption by sub-sector and end use by fuel, in primary energy equivalents 2010	September ²	-
5.05	Service sector energy consumption by fuel, 1970 to 2013	July	-
5.06	Public administration energy consumption by fuel, 1998 to 2013	July	-
5.07	Commercial energy consumption by fuel, 1998 to 2013	July	-
5.08	Agriculture energy consumption by fuel, 1998 to 2013	July	-
	Final energy consumption in the service sector by sub-sector and end use, 2013	September ²	-
5.09	Final energy consumption in the service sector by sub-sector and end use, 2012	September ²	-
5.10	Final energy consumption in the service sector by sub-sector and end use, 2011	September ²	-
5.11	Final energy consumption in the service sector by sub-sector and end use, 2010	September ²	-
	Service sector final energy consumption by sub-sector and end use, by fuel 2013	September ²	-
5.12	Service sector final energy consumption by sub-sector and end use, by fuel 2012	September ²	-
5.13	Service sector final energy consumption by sub-sector and end use, by fuel 2011	September ²	-

Table number in publication (2013)	Table Name	To be published:	Link provided to another publication:
Services			
5.14	Service sector final energy consumption by sub-sector and end use, by fuel 2010	September ²	-
5.15	Electricity consumption by certain non-domestic appliances 1970 to 2012	July	-
5.16	Number of appliances owned in UK non-domestic sector 1970 to 2012	July	-
5.17	Output and intensity factors affecting service sector energy consumption between 1990 and 2012	July	-
5.18	Factors affecting service sector energy consumption 1970 to 2013	July	-
5.19	Energy intensity for the service sector 1970 to 2013	July	-
5.20	Energy intensity for the private commercial sector, 1970 to 2013	July	-
5.21	Energy intensity for the public sector, 1970 to 2013	July	-
5.22	Floor area for service sector buildings in England and Wales, 2000 to 2013	July	-
5.23	Display energy certificate for each Government Department 2013	July	-

¹ These tables will be updated and constrained to the most recent DUKES data available.

² These tables will be updated and constrained to the most recent DUKES data available, however some of the underlying data in these tables are considered out-of-date.

³ These tables will no longer be produced as the data is available elsewhere (please see the link in the next column).

⁴ These tables will not be updated as there is no new data available.

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