

Gas and electricity consumption data below Local Authority level

This article gives a summary of the sub-national energy consumption analysis produced by DECC and released on 29 March 2012. Information in this article only acts as an overview for the datasets; detailed background notes on data interpretation can be found on DECC's regional energy statistics website at: www.decc.gov.uk/en/content/cms/statistics/regional/regional.aspx.

The aim of this work is to provide users with energy consumption data below Local Authority level. This enables councils and others to monitor and target small areas for further interventions as parts of their local energy strategies and enhance implementation of energy efficiency programmes and thus reduce carbon dioxide emissions.

Middle Layer Super Output Area (MSOA) and Intermediate Geography Zone (IGZ) electricity and gas data 2010

On 29 March 2012, DECC released 2010 electricity and gas consumption data for England and Wales at Middle layer Super Output Area (MSOA) level, and for Scotland at Intermediate Geography Zone (IGZ) level. These data are available for both domestic and non-domestic gas and domestic and non-domestic electricity consumption (though excluding consumption from businesses on half-hourly meters).

These follow on from the publication of similar estimates for 2005 to 2009 and are classed as National Statistics. MSOAs are a statistical geography developed by the Office for National Statistics (ONS) as part of the 2001 census. MSOAs and IGZs have more stable boundaries and are more comparable in terms of population than NUTS5/LAU2 areas or electoral ward areas. On average, an MSOA contains a population of around 7,200 (with a minimum of 5,000), while IGZs are slightly smaller containing an average of around 4,000 people (with a minimum of 2,500).

Lower Layer Super Output Area (LSOA) electricity and gas data 2010

Also on 29 March 2012, DECC released 2010 LSOA electricity and gas consumption data for domestic consumers within England and Wales. This data has previously been published for the whole of England and Wales for 2008 and 2009 and follows on from a successful pilot carried out during 2009, when the 2007 data was published for around 40 local authorities.

Since the methodology for producing these data is still developmental, DECC are currently classing these statistics as experimental. LSOAs are also a statistical geography developed for the 2001 Census by the ONS. The 34,378 LSOAs in England and Wales have a minimum population of 1,000 (or around 400 households) and are used as the building block for MSOAs. Again, the advantage of using these Census geographies (instead of geographies such as electoral ward) is that they are of consistent size across the country and will not be subjected to regular boundary change.

DECC are only able to publish the gas and electricity LSOA consumption data for domestic consumers. Due to the small size of these geographical areas, the majority of the non-domestic consumption would be disclosive and would have to be aggregated. Since the non-domestic consumption is available at MSOA, DECC took the decision that publishing non-domestic LSOA level data after aggregation would not add much value for users. In addition, the gas and electricity consumption data at a Data Zone (DZ) level is currently not available for Scotland. The 6,505 Data Zones each have a minimum population of 500 and the energy suppliers (who provide us with the data) have not granted DECC permission to publish consumption at this level for disclosure reasons.

Further information on the geographies described above is available on the Office of National Statistics website at:

www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/census/super-output-areas--soas-/index.html

Special feature – Gas and electricity consumption data below Local Authority level

For gas and electricity, there is information for each MSOA and IGZ on total consumption, total number of meters and average (mean) consumption for non-domestic consumers and domestic consumers (which is further split for electricity by domestic ordinary tariff and domestic off peak based tariffs such as Economy 7). Due to data disclosure issues, consumption relating to half hourly non-domestic electricity consumers – who are generally larger energy users - has not been disaggregated below local authority level (i.e. it is excluded from the non-domestic MSOA electricity data).

Similarly, for each LSOA in England and Wales, there is information on total consumption, total number of meters and average consumption for domestic consumers (again split by standard tariff and Economy 7 tariff for electricity). Users should note, however, that some LSOAs may be missing from the datasets. This only occurs if the MSOA to which it belongs is disclosive and has been merged with another MSOA. In these instances, the LSOA is automatically disclosive and as such cannot be published.

The excel workbooks containing this information can be found on the DECC website at:

www.decc.gov.uk/en/content/cms/statistics/energy_stats/regional/electricity/MLSOA_lloa/MLSOA_lloa.aspx

Neighbourhood Statistics

The 2005 to 2009 MSOA gas and electricity consumption data have been incorporated onto the ONS Neighbourhood Statistics database. This database allows users to analyse different official statistical datasets at a local level, enabling a greater level of analytical integration. DECC plans to add the 2010 MSOA and 2010 LSOA data to the Neighbourhood Statistics database shortly. The data can be found at: www.neighbourhood.statistics.gov.uk

User feedback

We welcome all feedback from the users of this data, therefore if you would like to comment on these or on the content of this article, please contact Tom Rouse using the contact details below.

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