

# Domestic Energy Consumption in Warwickshire

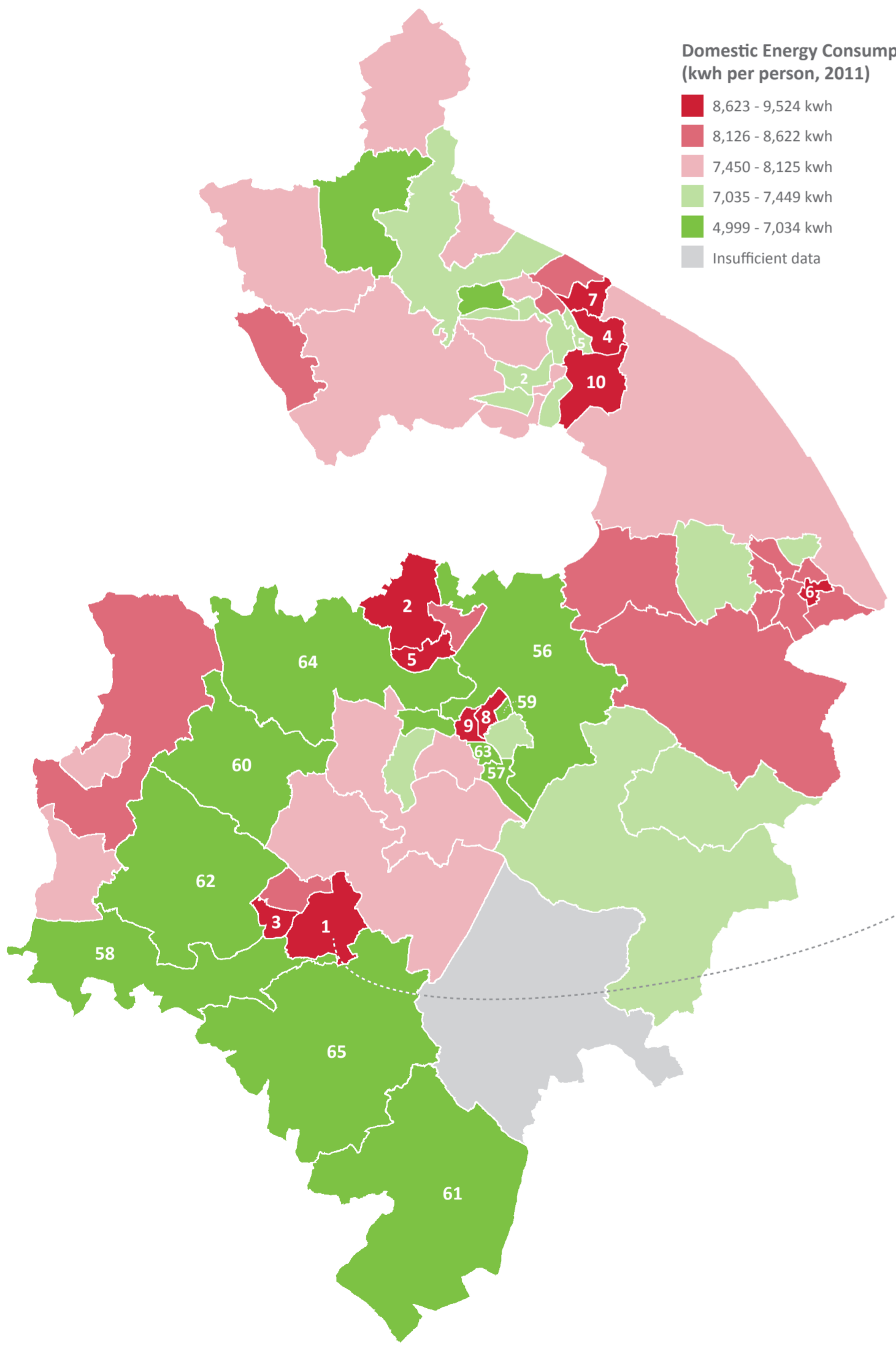
Each year, the Department for Energy & Climate Change publishes statistics on the amount of energy consumed by households across Great Britain. The figures for 2010 have just been released, and we have presented an analysis of the Warwickshire data here.

### What can the figures tell us?

- The total domestic energy consumption, in kilowatt hours, for every small area in the county
- How this energy consumption is split between gas and electricity
- How consumption has changed over the past five years

### Why is this important?

- The rising cost of energy has an increasingly significant impact on household budgets (see <http://wp.me/pGw9x-o8>)
- Links between energy use and carbon emissions (see the Carbon Plan at <http://bit.ly/HpULfV>)
- Dependency on traditional forms of energy needs to change as resources become depleted (see <http://bit.ly/stockcheck2>)



### Notes

The data has been presented at Middle-level Super Output Area (MSOA). There are 66 of these in Warwickshire, each with a population between 5,000 and 12,000. More detailed information is also made available by the Department for Energy & Climate Change, at Lower-level Super Output Area (LSOA). However, those figures are classed as 'experimental', whereas the MSOA data has been approved as 'national statistics' and can be regarded as robust.

The purpose of the data release is to allow Local Authorities and other interested parties to "more easily target specific areas as part of the implementation and monitoring of local energy strategies".

For further information on how to interpret the information, see the Department for Energy & Climate Change guidance at <http://bit.ly/HR29Du>.

### Key Facts

- The latest data on domestic energy consumption tells us that...
- The average Warwickshire household consumed 4,555 kilowatt hours of electricity and 12,661 kilowatt hours of gas during 2010.
  - This meant a combined consumption level of 17,216 kilowatt hours, down very slightly on the 2009 figure of 17,295. The most reliable baseline figure for comparison (2006) was 19,520 kilowatt hours implying there has been some reduction over the past five years.
  - Consumption appears to vary considerably across the county (see map opposite), with households in some areas consuming an average of 22,000 kilowatt hours.
  - At district/borough level, energy consumption appears to be highest in Rugby (18,024 kilowatt hours per household).

### How does energy consumption vary across the county?

The map opposite presents combined electricity and gas consumption, in kilowatt hours, per person across Warwickshire's 66 Middle-level Super Output Areas (MSOA) during 2011.

Figures range between 5,000 and 9,500 kilowatt hours per person. The table below lists the highest and lowest ten rates in the county.

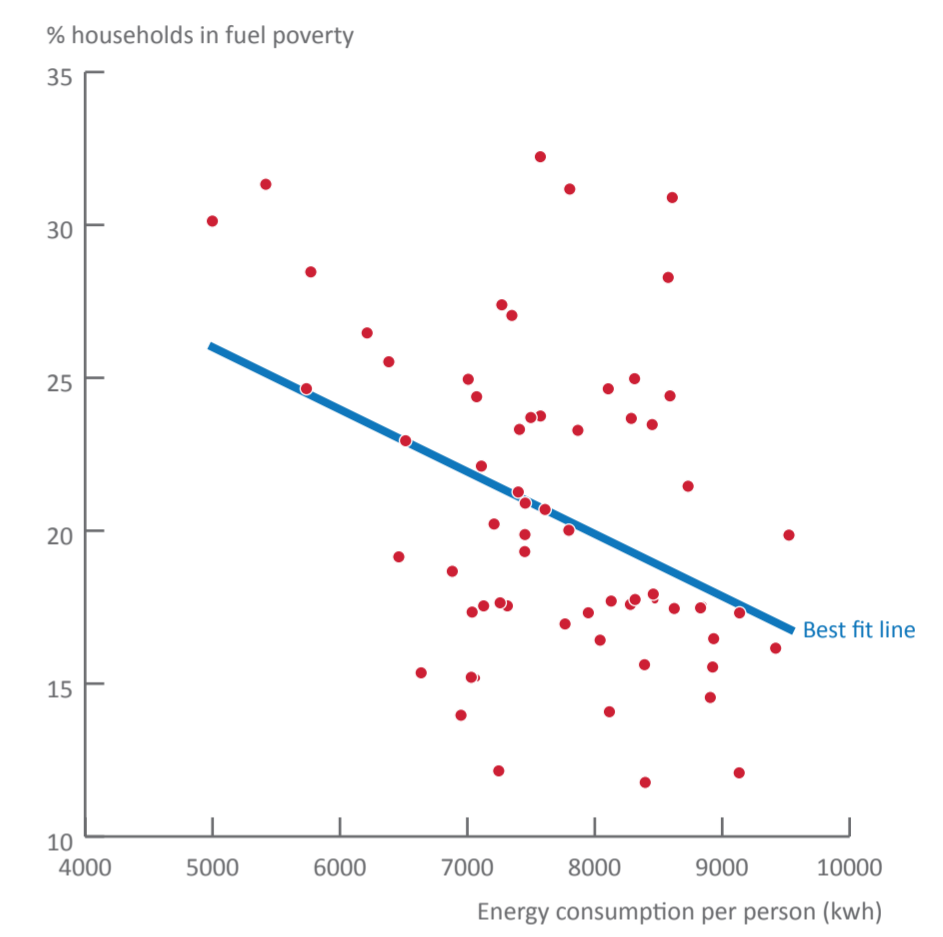
The highest energy consumption rates are generally clustered in four areas; Stratford-upon-Avon, North Leamington, Kenilworth and East Nuneaton. These would all be regarded as the most affluent parts of the county. Conversely, the lowest consumption levels appear to be concentrated in the more rural parts of south Warwickshire; the ten lowest figures are all in our two southern districts.

MSOA Name	District	Domestic Energy Consumption per person 2011 (kwh)
1 Stratford Alveston	Stratford-on-Avon	9,524
2 Kenilworth Abbey	Warwick	9,420
3 Stratford Guild, Hathaway & Mount Pleasant West	Stratford-on-Avon	9,136
4 Whitestone	Nuneaton & Bedworth	9,133
5 St. John's	Warwick	8,933
6 Eastlands	Rugby	8,925
7 St. Nicolas	Nuneaton & Bedworth	8,907
8 Manor & Clarendon West	Warwick	8,852
9 Milverton	Warwick	8,830
10 Bulkington	Nuneaton & Bedworth	8,732
56 Cubbington, Stoneleigh & Radford Semele	Warwick	6,882
57 Whitnash	Warwick	6,637
58 Bidford, Salford & Welford	Stratford-on-Avon	6,515
59 Crown	Warwick	6,462
60 Claverdon & Henley	Stratford-on-Avon	6,383
61 Shipston, Brailes & Long Compton	Stratford-on-Avon	6,213
62 Kinwarton, Aston Cantlow & Bardon	Stratford-on-Avon	5,771
63 Brunswick	Warwick	5,737
64 Leek Wootton & Lapworth	Warwick	5,418
65 Quinton, Ettington & Tredington	Stratford-on-Avon	4,999

### What influences energy consumption?

We've compared the energy consumption levels against a range of other socio-economic factors to try and understand what influences levels of energy consumption. Energy consumption does not appear to be influenced by housing type; areas with higher proportions of detached properties do not necessarily consume more energy, for example. Nor is energy use affected by age profiles; areas with higher proportions of the population aged above 65 do not necessarily use more energy. The official Indices of Deprivation are also not closely correlated with energy consumption.

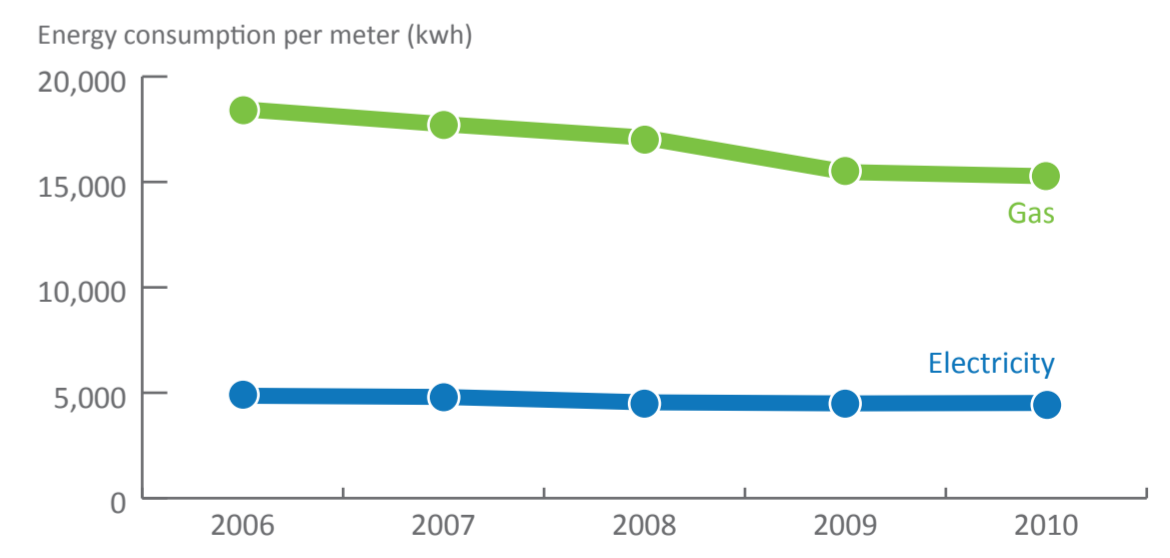
The closest relationship we've found is between energy use and fuel poverty. As fuel poverty increases, there is marginal tendency for energy consumption to decrease, as illustrated in the diagram below (each dot represents an MSOA).



The other, relatively crude, relationship we can see is between energy consumption and the extent to which an area is categorised as urban or rural. Using the Office for National Statistics 'Rural & Urban Classification' scheme we see that, in broad terms, energy consumption is highest in urban areas and reduces the more rural an area becomes. However, it is this because the data is based on metered properties, and there might be a greater likelihood for rural households to use alternative or non-metered energy supplies?

### Is energy consumption decreasing?

The available evidence suggests that domestic energy consumption is decreasing slightly across Warwickshire, more notably for gas than electricity. More energy efficient appliances, more energy awareness or a response to rising fuel bills?



### What doesn't this data tell us?

Although useful, it is important to recognise the limitations of this dataset and, as is often the case, the data can generate as many questions as it answers.

For example, the data is based on metered energy consumption, and therefore excludes bottled gas, oil, wood, coal or other non-mains based energy types.

As the data is meter-based, there is no adjustment made for different housing types, household sizes etc. We have used population estimates to create 'consumption per person' figures in an attempt to make the figures more comparable across areas.

Combined domestic electricity and gas consumption, in kilowatt hours, per person during 2011. Produced at Middle Level Super Output Area level (MSOA). Sources: Department for Energy & Climate Change (DECC), Office for National Statistics, Experian, Warwickshire Observatory © Crown Copyright and database right 2012. Ordnance Survey 100019520.

Contact [spencerpayne@warwickshire.gov.uk](mailto:spencerpayne@warwickshire.gov.uk) for the full dataset