

Should we be burning wood, gas or coal?

Fracking has support in government and here's a possible reason. According to the government's statistics, North Sea gas production is in rapid decline, falling by nearly two thirds since 2000. In 2012 year we imported about 4 times more gas than we exported, mostly from Norway and Qatar. Of the electricity we used in 2012, 39% started life as coal, 28% as gas, 19% as nuclear and 11% renewables. A rise in wholesale gas prices saw energy suppliers switching back to coal. Yet, the government wants CO₂ down 80% by 2050.

What's to do? 27% of UK CO₂ emissions come from our homes. We all need electricity and winter warmth. Fracking could be an answer, although the film Gasland points to potential downsides. What options do homeowners have? Some are switching to a 100% renewable electricity tariff. Others are generating their own electricity and hot water with solar panels. Some are even using waste wood for space heating. The most determined are reducing their home's space heating requirement, so insulating themselves from future energy price hikes. To find out more about these low carbon trailblazers, visit www.superhomes.org.uk.



SuperHomers Paul and Celia Sousek have reduced their fossil fuel use to near zero. Photo courtesy of www.superhomes.org.uk

Notes for Editors:

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1. The Digest of UK energy statistics ([DUKES, 25 July 2013](#)) quotes total UK offshore gas production of 115,000 million cubic metres in 2000 and just 41,000 in 2012. Production in 2012 was therefore just 35% of what it had been in 2000 and the trend is downwards. See 'Gas production (DUKES F.2)' for details. The UK imported 535,000GWh and exported 132,000GWh of natural gas in 2012 (so importing around 4 times what we exported). See 'Natural gas imports and exports (DUKES 4.5)'.

In 2012 we imported 294,586GWh of gas from Norway via pipelines and 144,267GWh of liquefied natural gas by ship from Qatar. Our third largest supplier was The Netherlands with 87,120GWh. See 'Natural gas imports and exports (DUKES 4.5). For the breakdown of fuels used in the generation of electricity in 2012, see 'DUKES 2013 Chapter 5: Electricity'. The 28% gas and 39% coal inputs are respectively the fuels' lowest and highest levels since 1996. In 2012 the proportion of electricity from coal was 39%, up from 30% in 2011.

2. The Big Picture

The UK government set a target of a 60% carbon reduction by 2050 in 2005 (this was subsequently increased to 80%). The UK's 25 million homes currently account for at least 27% of UK carbon emissions. It is estimated that as many as 80% of all homes that will be in standing in 2050 have already been built. This means that retrofitting existing homes is a priority if the government's target is to be met. The Government's Green Deal launched in January 2013 and offers loans for energy efficiency improvements. At the current rate of work through government initiatives, it will take over 500 years to refurbish the UK's 7 million solid wall properties. 8000 properties had solid wall insulation added over 7 months Jan – July 2013 with the help of an ECO (Energy Company Obligation) subsidy. 67 homes had solid wall insulation installed through the Green Deal to Oct 2013.

3. SuperHomes

SuperHomes are older homes that have been refurbished by their owners to the highest standards of energy efficiency. This means greater comfort, significantly lower running costs and a reduction in carbon emissions of at least 60%. SuperHome Open Days let visitors see for themselves both the challenges and benefits associated with making an older home energy efficient. Over 50,000 people have already visited a SuperHome. Currently there are 175 registered SuperHomes and 85% of the population in England and Wales live within 30 miles of one. The network includes a wide range of older property types including Victorian houses, a thatched cottage, an 18th century converted mill and some properties that produce more energy than they use.

4. Partners

SuperHomes enjoys the support of the Esmée Fairbairn Foundation, WWF, Energy Saving Trust, National Energy Foundation, Megaman and SIG Energy Management.

5. The Sustainable Energy Academy

The Sustainable Energy Academy (SEA) promotes education and action to reduce the carbon footprint of buildings and communities. SuperHomes is an SEA initiative. The aim is to create a network of 500 SuperHomes that are local and publicly accessible by 2020.