

Research Note:

Estimating the number of off-gas grid homes in England using alternative fuels for heating that are eligible for the Home Upgrade Grant (HUG)

November 2022

Summary

There are between 2.8 million and 3.2 million off-gas grid homes in England, representing around 12% to 13% of all homes in England. These homes do not have a physical connection to the mains gas network so do not receive gas from the National Grid.

Supporting off-gas grid homes in England using alternative fuels for heating through the Home Upgrade Scheme (HUG)

There are between 2.8 million and 3.2 million off-gas grid homes in England, representing around 12% to 13% of all homes in England. These homes do not have a physical connection to the mains gas network so do not receive gas from the National Grid. The Home Upgrade Grant (HUG) is designed to support lower-income owner-occupied or privately rented off-gas grid homes that have an energy efficiency rating of Band D to G. Between 860,000 and 1.1 million such homes in England are eligible for support to improve their energy efficiency rating through the HUG scheme.

Table 1: Number of off-gas grid homes in England and of these the number eligible for support from the HUG scheme

	Lower-bound estimate	Mid-point estimate	Higher-bound estimate
Number of off-gas grid homes in England	2,800,000	3,000,000	3,200,000

The second step was to estimate how many of the homes in England that were not connected to the mains gas network used alternative fuels as their main fuel for their main or primary space heating system. Alternative fuels include heating oil, house coal, smokeless fuel, wood, propane, bulk LPG, community heating from boilers/CHP/waste heat and anthracite nuts. The Fuel Poverty 2019 dataset has a variable (Maintypefuel) that flags three types of fuels used as the main fuel source for the main or primary space heating system. For the purposes of the analysis, we define off-gas grid homes in England relying on alternative fuels to heat their homes as off-gas grid homes that use electricity as the main fuel for their main or primary space heating system. Table A2 presents these figures.

Table A2: the number of off-gas grid homes in England relying on alternative fuels to heat their home

Mainfueltype main fuel type	95% lower-bound confidence interval	mid-point estimate	95% higher-bound confidence interval
Gas	70,000	110,000	140,000
Electricity	1,500,000	1,600,000	1,800,000

Table A4: End of year by which all eligible off-