

# Clean Burn Sussex (CBS) Survey Results

## 1 Background

The Sussex Air quality partnership received Government funding from Defra's Air Quality Grant 2019/20 for a project to raise awareness about domestic burning and promote better burning methods and choices. The project – Clean Burn Sussex (CBS) – included a resident survey to identify households that use solid fuels for domestic heating, determine the types of stoves and fuels used and find out about burning behaviour and the primary reasons for burning solid fuels.

## 2 Methodology

### 2.2 Overview of Sampling Method

The survey was available to complete online on the Sussex Air / CBS website and ran from 5th November 2019 to 20th January 2020.

The survey was promoted by the Sussex-air project officer, with use of social media outlets (Facebook, Instagram and Twitter). District and Borough communications also promoted it on their social media accounts press releases.

SIA and HETAS promoted the survey on their websites and in their newsletter to members.

A prize was offered for completion of the questionnaire; delivery of dry wood to the value of £250.

Figure 1 shows the number and distribution of responses.

### 2.3 Sample Size

The collected data might not be statistically significant at a district level but the sample is representative of the Sussex region based on the sample size & confidence interval calculations.

### 2.4 Processing of Results

The results were processed to remove outliers.

The survey results were used to examine stove use and solid fuel consumption in Sussex. Where possible the results were compared against the DECC Domestic Wood Survey (2015).

Further analysis of solid fuel emissions could be based on the estimated proportion of wood/coal users in the South East, as determined in the DECC survey.

## 2.5 Non response

The response rate is associated with how confident respondents felt about answering a particular question. Many questions were technical and required a numeric answer, which affected the response rate. Questions were analysed individually.

## 3 Summary findings

### 3.1 Sussex sample of solid fuel users

- The number of wood users in the Sussex sample is between 1489 and 1493. The same proportion of wood users live in urban Lower Super Output Areas (LSOAs) as in rural LSOAs. Wood users do not tend to live in the most fuel poor LSOAs.
- The number of coal users in the sample is between 322 and 423. A slightly larger proportion of coal users (56%) live in the LSOAs classified as urban. Similar to wood users, coal users do not live in the most fuel poor LSOAs.
- The number of solid fuel users is between 1505 and 1521.
- Of 1521 solid fuel users, 237 (15%) can be categorised as ‘essential’ solid fuel users. This group includes those that:
  - said they used wood or coal as the main fuel to heat their homes; and/or
  - Said that they used solid fuel for all their heating.
- Majority (58%) of ‘essential’ solid fuel users live in rural LSOAs but not in the most fuel poor LSOAs. Approximately 21% of ‘essential’ solid fuel users have solid fuel central heating.
- The majority of solid fuel users, including ‘essential’ users, live in LSOAs where the most prevalent property age is pre-1900.

### 3.2 Solid fuel use in Sussex

- Price and local availability are the most important factors for buying fuel, whilst the least important is the availability of advice/information.
- A large majority of respondents (88%) use their stoves to produce some heating, which agrees with the DECC survey findings. Six percent of the respondents use stoves for all of their space heating; this proportion is less than the national average.
- Although the majority (over 35%) of wood users started burning wood over 10 years ago, a quarter did so in the last 3 years.
- Notably, over 40% of stove users chose ‘cosy atmosphere’ as a reason for using a stove, which may mean that a higher than average proportion of stove users in Sussex are ‘recreational’ users.
- Over 40% of wood users live in pre-1900 properties. Sussex wood users generally cannot be categorised as fuel poor, however it would be useful to investigate further wood burning in areas with over 10% of households in fuel poverty.

- The majority of wood fuel users (88%) burned hardwood logs either on its own or in conjunction with other fuel types. Thirty two percent of Sussex wood users burned softwood logs. Waste wood was the next most commonly used fuel (24%), mainly sourced in urban areas. The overall proportion of wood sourced from the “grey” market (own land, gathered or use waste wood) was greater for rural areas. This data is in agreement with the DECC survey results.
- Thirty percent of coal users used traditional coal.
- In Sussex the majority of wood/coal users source their fuel locally. Therefore, in order to influence behaviour it is important to reach out to the local suppliers. Fuel is delivered in larger quantities, by truck or trailer.
- The vast majority of wood users ‘season’ their wood by keeping it in an enclosed store – however the duration of seasoning is unknown so it’s important to encourage a 2-summer seasoning period. Over 80% of wood users have not heard of the Woodsure/Ready to Burn certification scheme.
- The heating season lasts between 2 and 6 months for the vast majority of respondents, presumably starting in October and finishing in March. Over a third of respondents use their stove for 12 to 20 hours per week. Only 5% of respondents operated a stove in excess of 80 hours a week.

### 3.3 Stove use in Sussex

- Energy efficiency is the most important factor for buying a stove, whilst the least important is the availability of advice/information.
- Solid fuel users tend to be using closed stoves of between 3 and 10 years of age.
- Nevertheless, there is also a significant stock of open fires of over 10 years old. Open fires used by respondents were prevalently over 10 years old, which agrees with the DECC survey findings. It was also found that nearly 40% of respondents started burning wood more than 10 years ago.
- The age of closed stoves is more evenly spread, again this matching DECC findings. There is a stock of closed stoves over 10 years old but, equally, there is a large number of households using new closed stoves of under 3 years old.
- Over 70% of respondents have only one stove. Having more than one stove is more prevalent in rural areas.
- Respondents were generally unaware of their stoves’ heat output, however nearly 30% declared having a stove of 3-5kW, which is the right size for an average room.
- Ecodesign stoves are more prevalent in urban areas.
- Overall, Sussex has a younger stock of appliances compared to average UK stock.
- Over 50% of stove users thought that Hetas installed their appliance.
- Slightly over 80% of respondents said that they had a CO meter located in the same room as their solid fuel appliance, while 60% had a smoke alarm.
- Stove users mainly used operating instructions from manufacturer to operate their stoves. Over 40% of respondents relied on previous experience to use their stoves.

- The majority of stove users have their chimneys swept once a year. However, it follows from the responses that 10% of users get to sweep their chimneys less than every 2 years, this including respondents who did know the answer to this question.

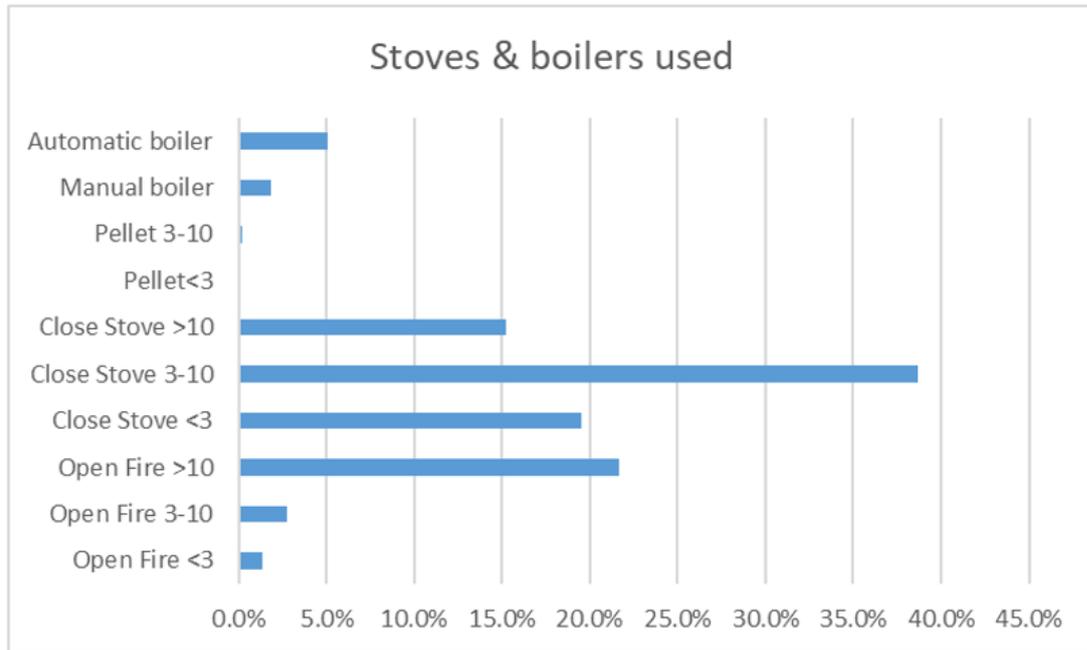
### 3.4 Fuel poverty in Sussex

- A vast majority of the respondents thought their home felt reasonably warm over winter, however there were respondents (6%) who said their homes felt cool or very cold.
- Over 70% of respondents did not know the EPC rating of their homes. Of those who knew it, over 10% declared an EPC rating of D or worse.
- Home ownership is prevalent in Sussex with only 6% of wood users renting their homes. The vast majority (80%) of wood users do not receive any benefits.

**Figure 1 Distribution of responses**

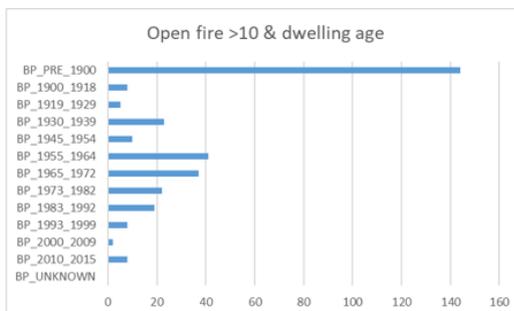
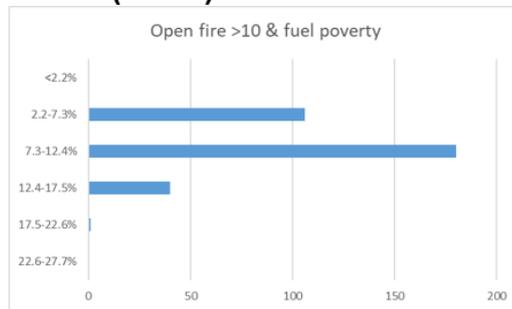
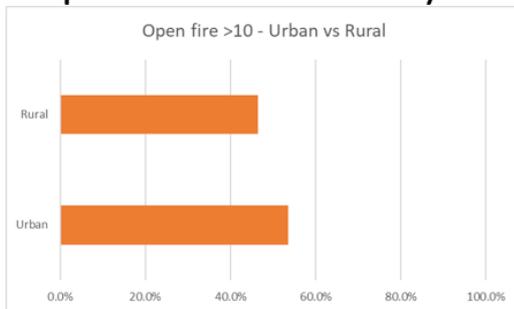
District	Urban	Rural	Total
SCA Brighton	8	0	8
SCA Crawley	13	0	13
Worthing	39	0	39
Wealden	160	297	457
Rother	146	304	450
Mid Sussex	59	24	83
Lewes	74	33	107
Horsham	66	115	181
Hastings	64	0	64
Eastbourne	64	0	64
Crawley	15	0	15
Chichester	46	62	108
Brighton	56	0	56
Arun	100	20	120
Adur	37	0	37
<b>TOTAL</b>	<b>926</b>	<b>855</b>	<b>1802</b>

# Stove users – stove type (Q5)



This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1509.

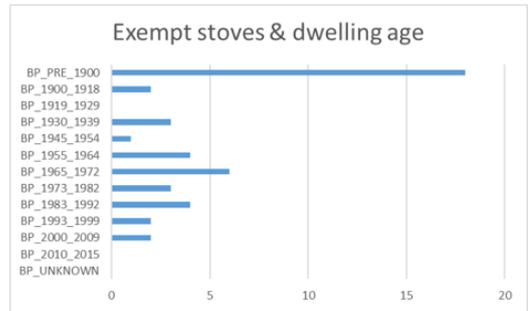
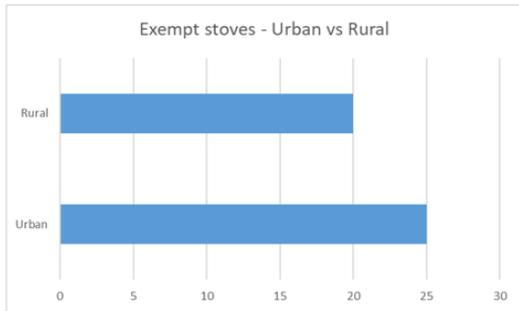
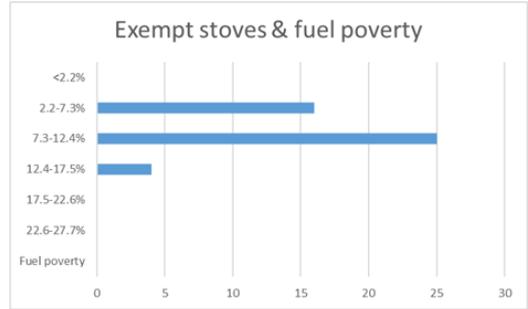
# Open fires >10 years old (Q5)



This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1509.

# Defra-exempt stoves (Q5)

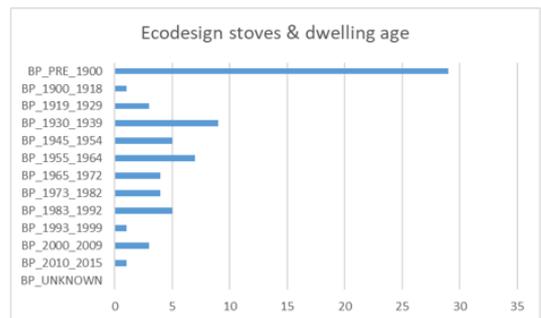
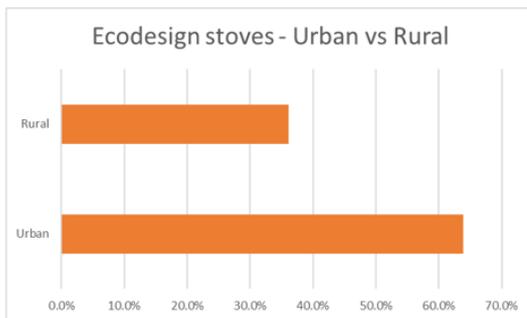
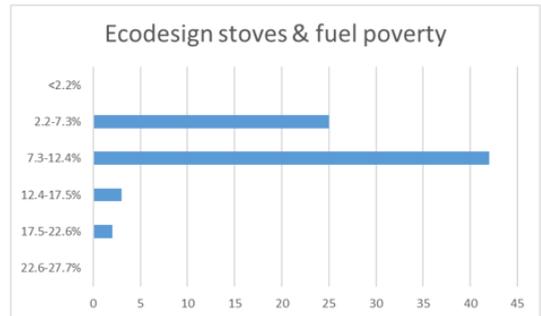
- Only 45 stoves out of 1500
- 0 in Brighton SCA, 2 in Crawley SCA



This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1509.

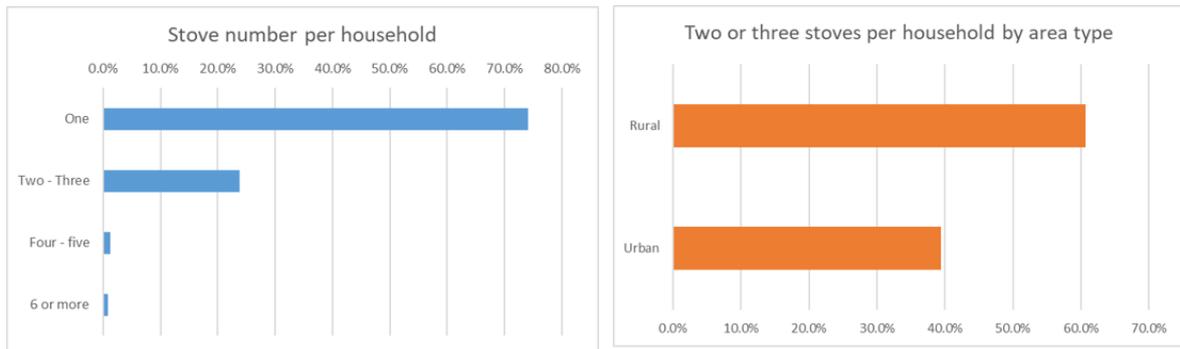
# Ecodesign compliant stoves (Q5)

- Only 72 stoves out of 1500
- No such stoves declared in SCAs



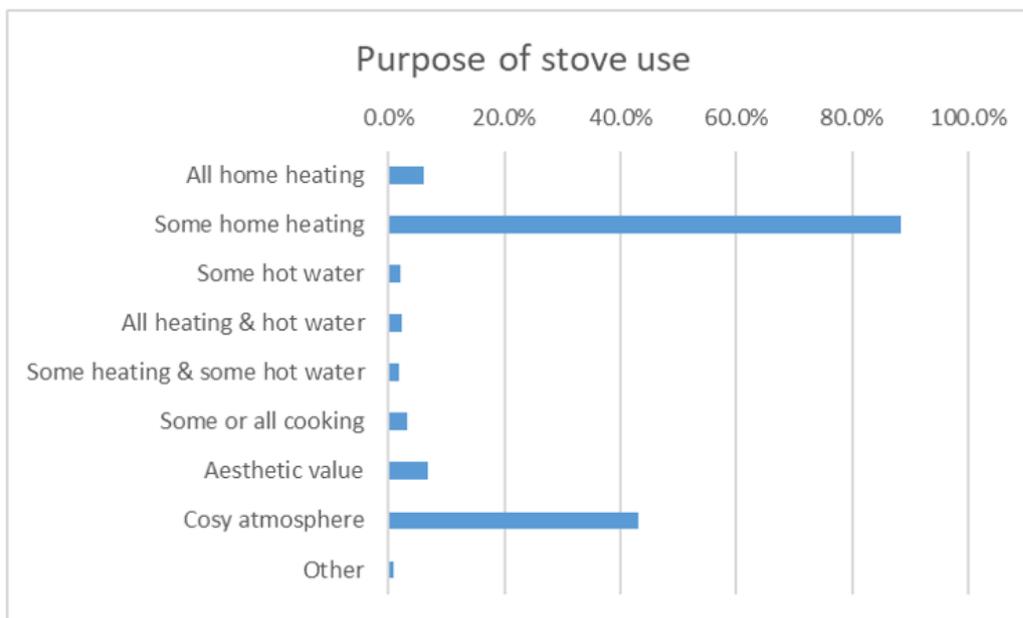
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1509.

## Number of stoves per household (Q6)



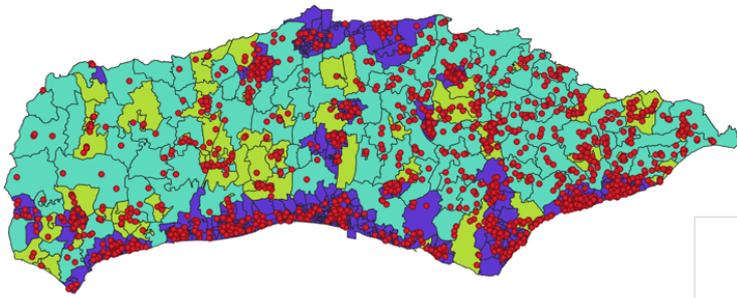
This includes only those respondents able to answer this question. Number of respondents: 1421.

## Purpose of stove use (Q7)

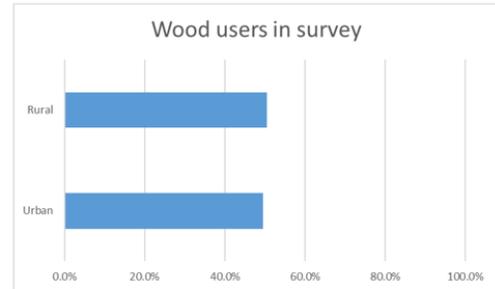


This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1451.

## Wood users – Urban vs Rural (Q8)

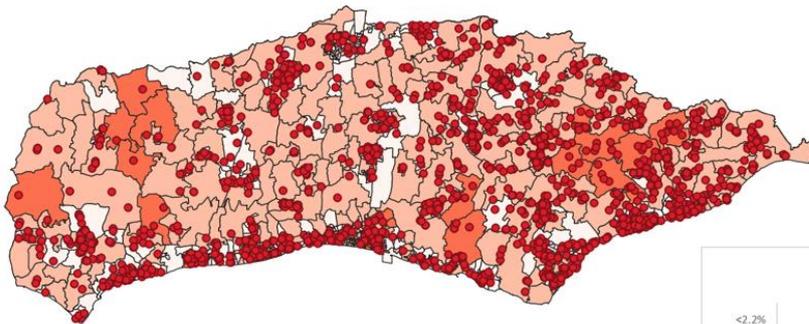


- WS\_LSOA**
- Rural town and fringe
- Rural village and dispersed
- Urban city and town

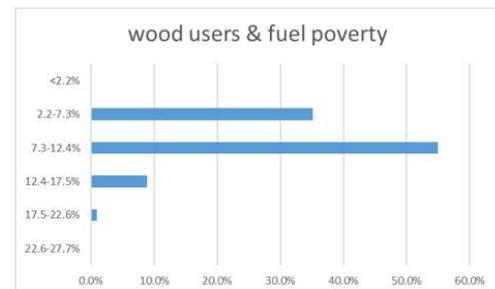


This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1505. Number of wood users: 1493

## Wood users – Fuel Poverty (Q8)

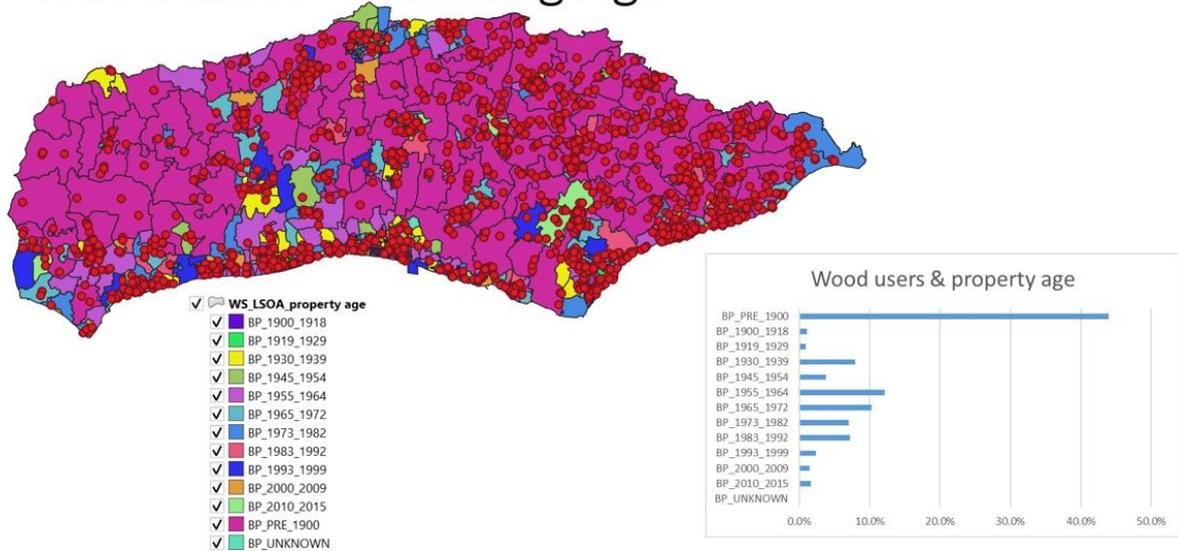


- WS\_LSOA\_Fuel Poverty**
- 2.2 - 7.3
- 7.3 - 12.4
- 12.4 - 17.5
- 17.5 - 22.6
- 22.6 - 27.7



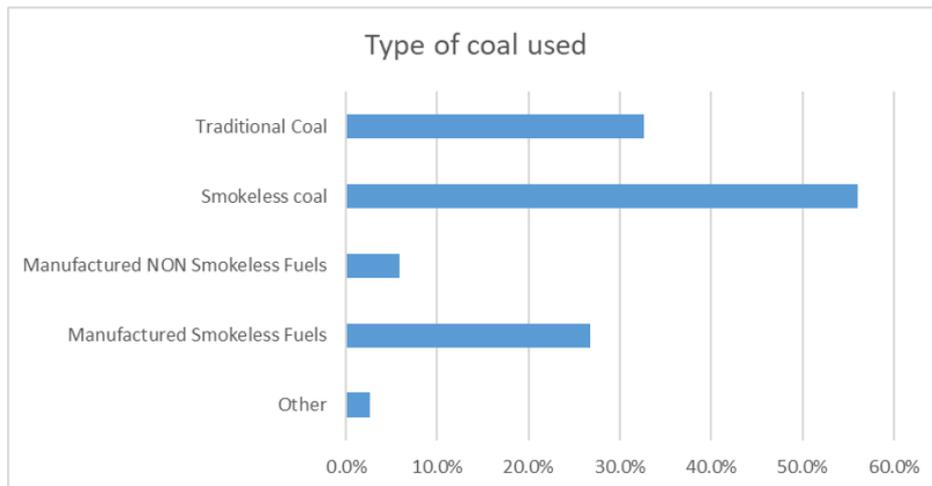
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1505. Number of wood users: 1493

## Wood users – Dwelling Age



This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1505. Number of wood users: 1493

## Type of coal used (Q8)



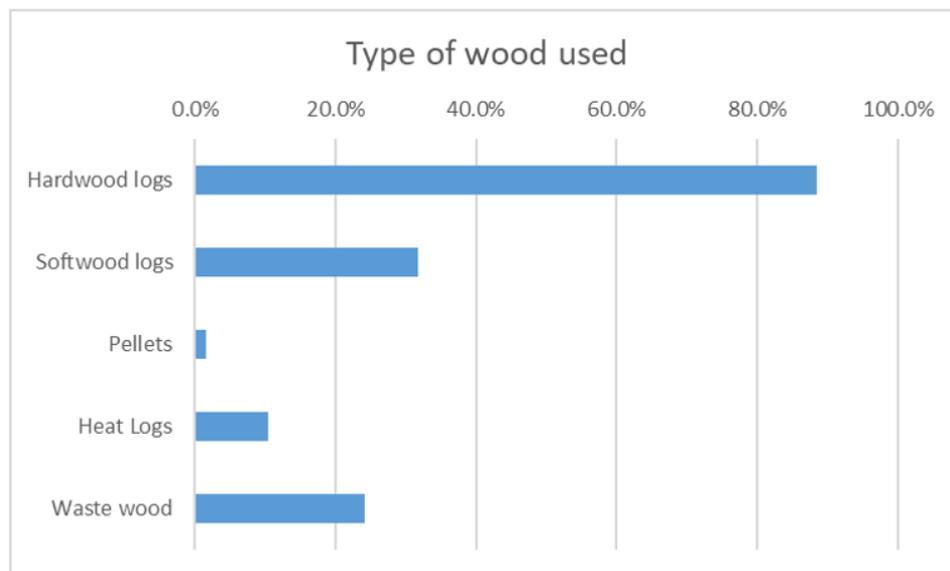
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1505. Number of coal users: 423

# When did you start burning wood? (Q9)



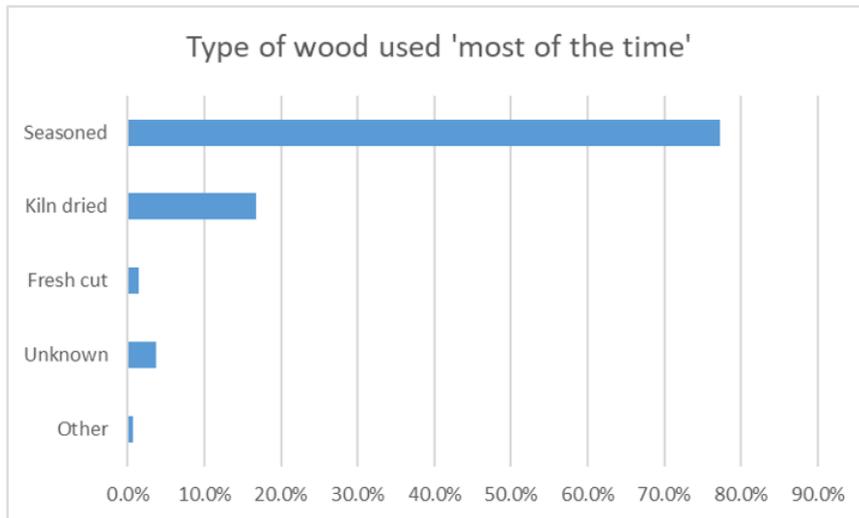
This includes only those respondents able to answer this question. Number of respondents: 1493.

# Wood users – type of wood burned (Q10)



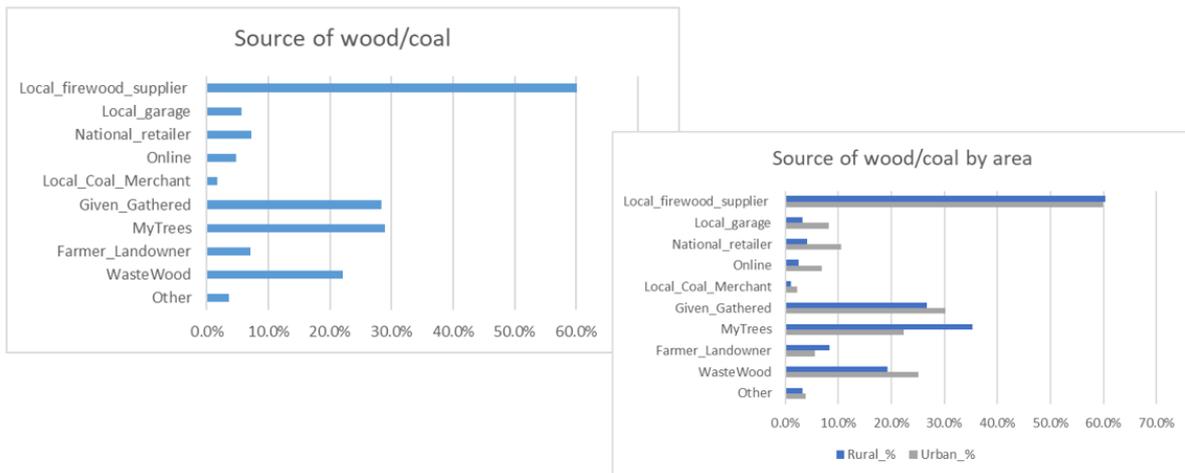
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1489.

# Type of wood used 'most of the time' (Q11)



This includes only those respondents able to answer this question. Number of respondents: 1331.

# Source of wood (Q13)



This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1405.

## Where do you mainly store your wood? (Q14)



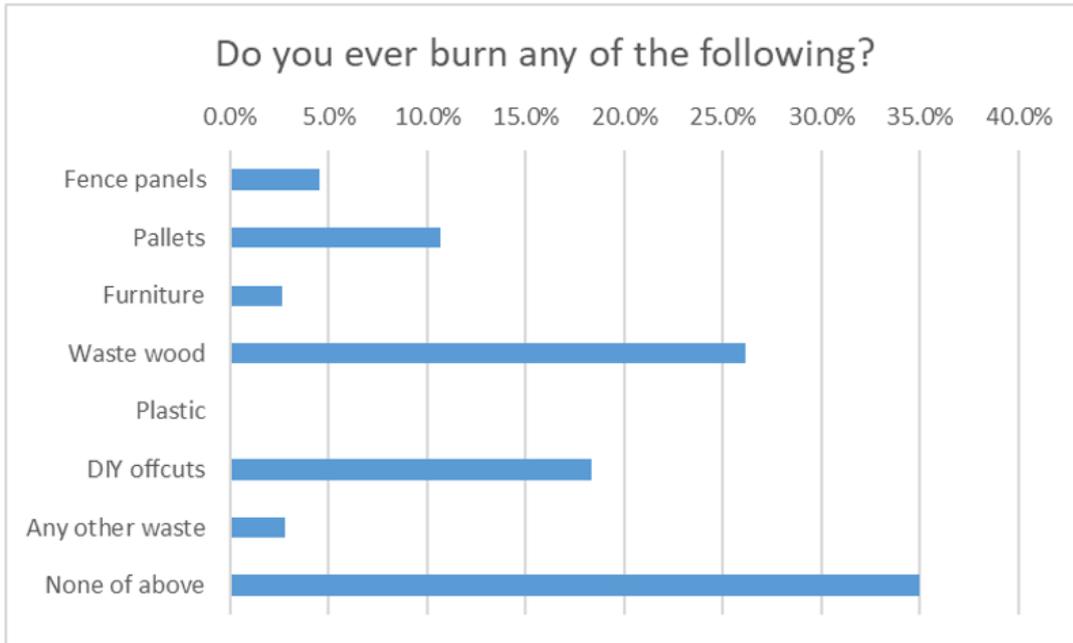
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1406.

## Quantities of wood purchased (Q15)



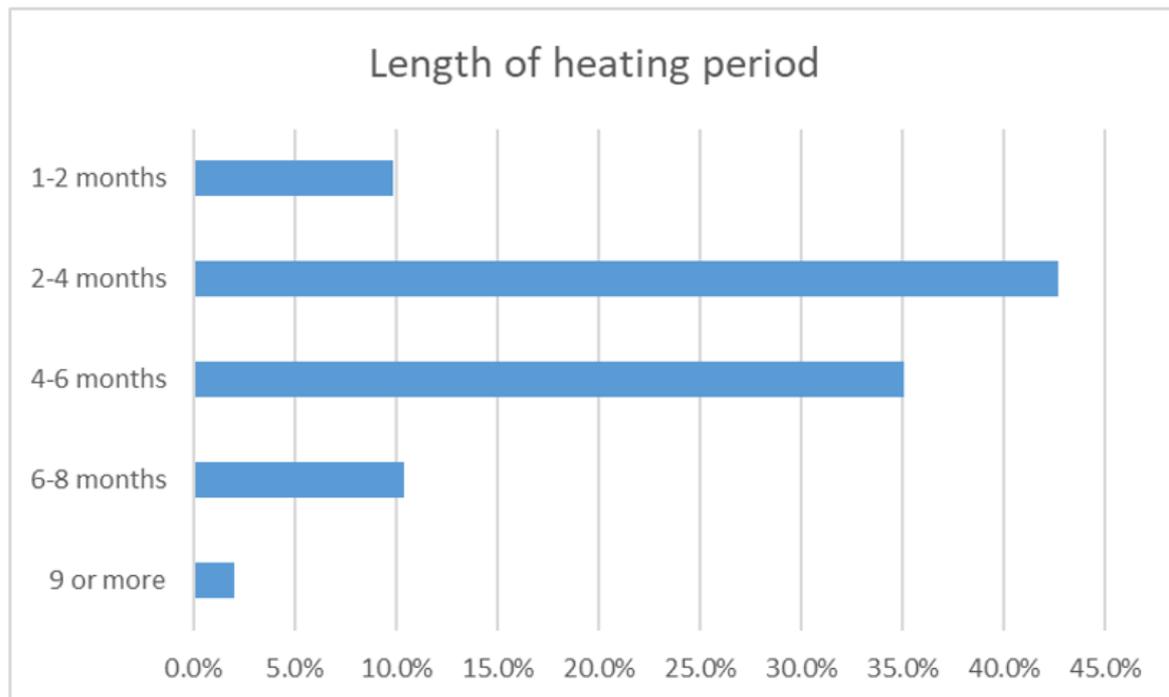
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 1330.

# Do you ever burn waste? (Q16)



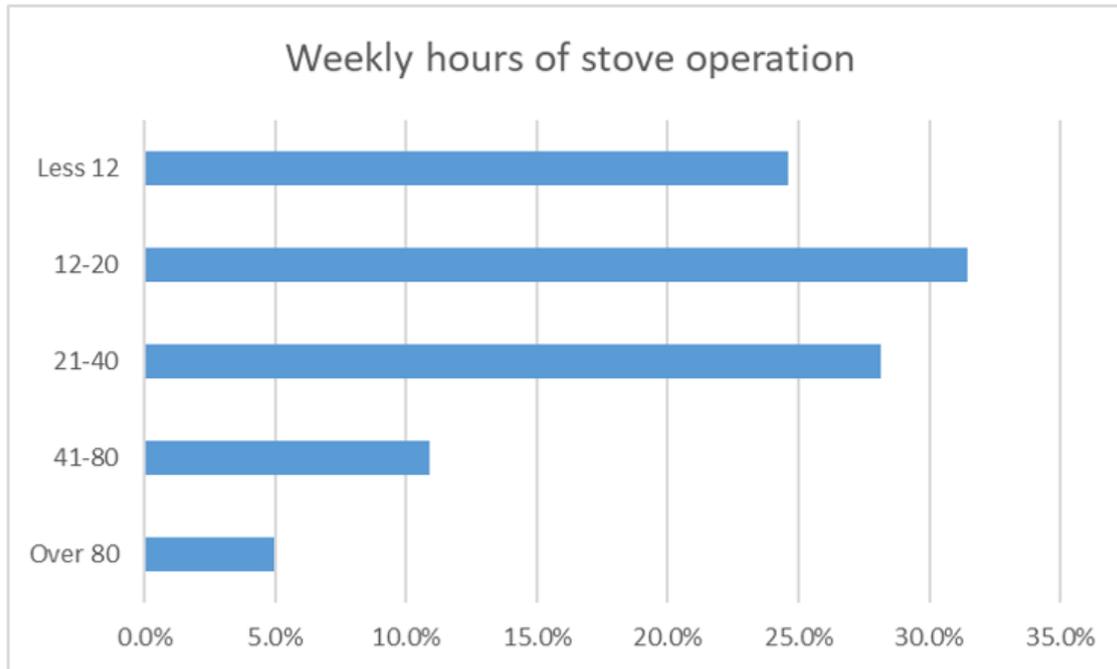
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 887.

# Stoves – Heating season (Q17)



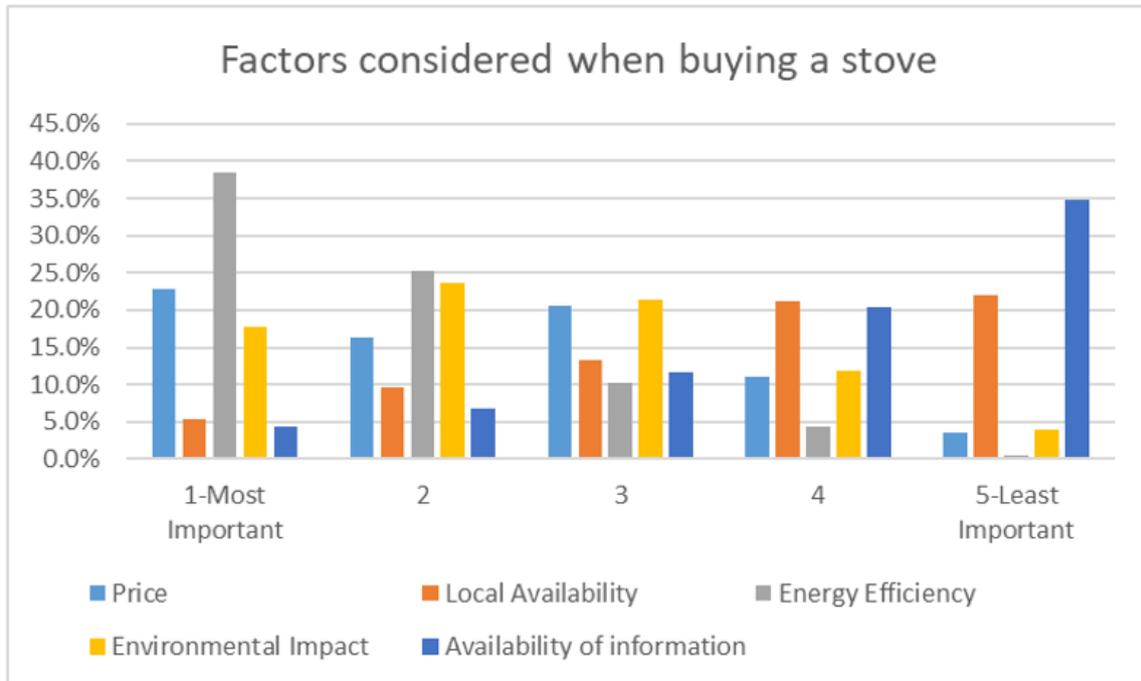
This includes only those respondents able to answer this question. Number of respondents: 830.

# Stoves – hours of operation (Q18)



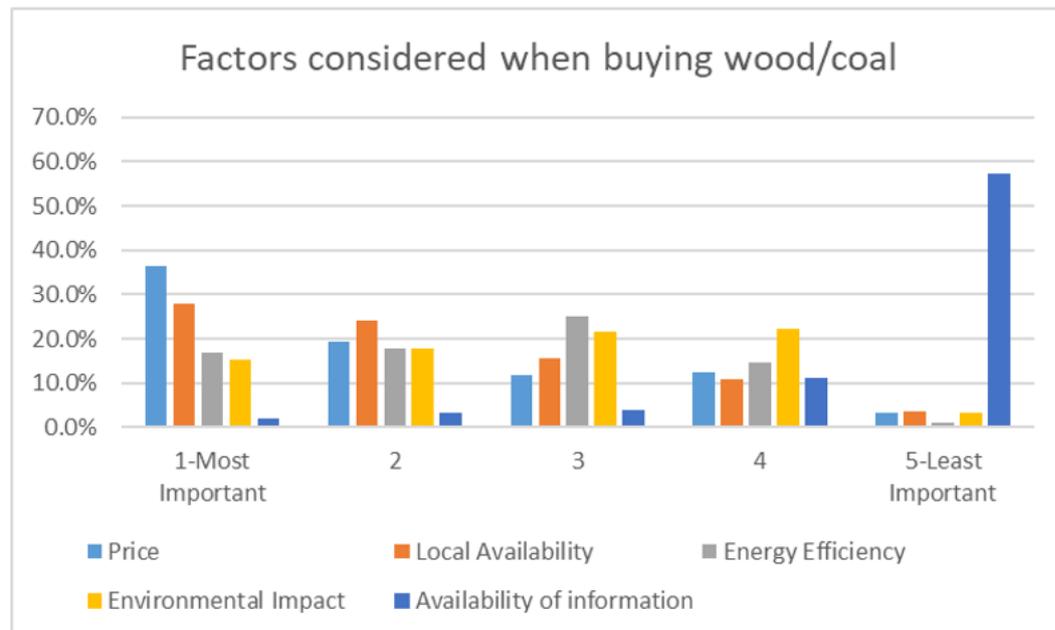
This includes only those respondents able to answer this question. Number of respondents: 846.

# Key factors for buying a stove (Q19)



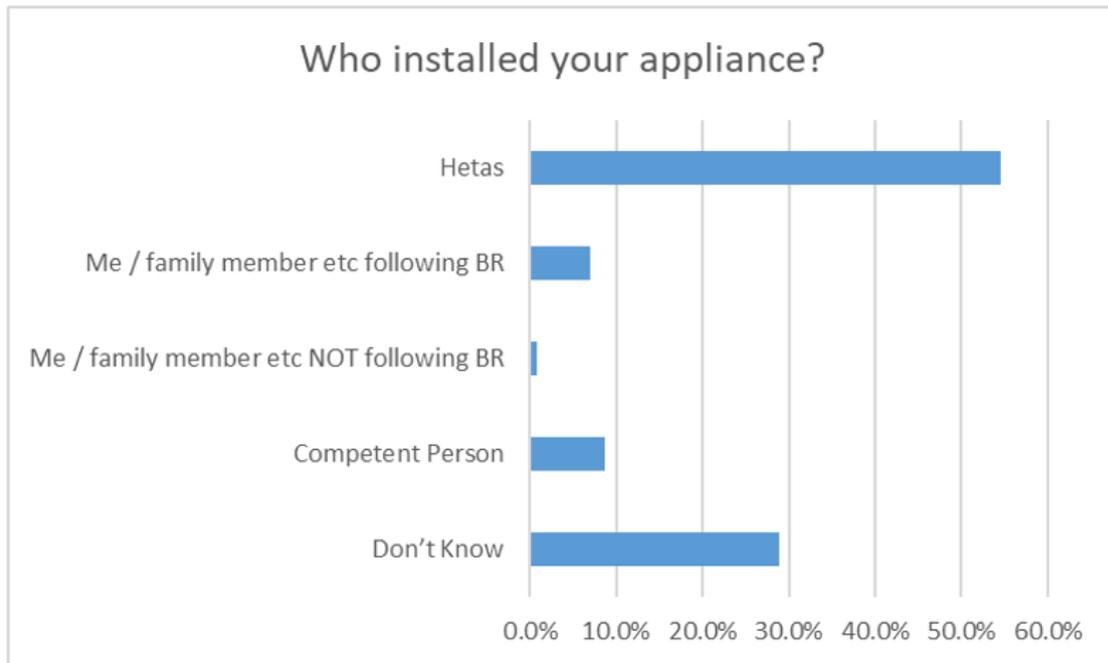
This includes only those respondents able to answer this question. Number of respondents: 880.

# Key factors for buying wood/coal (Q20)



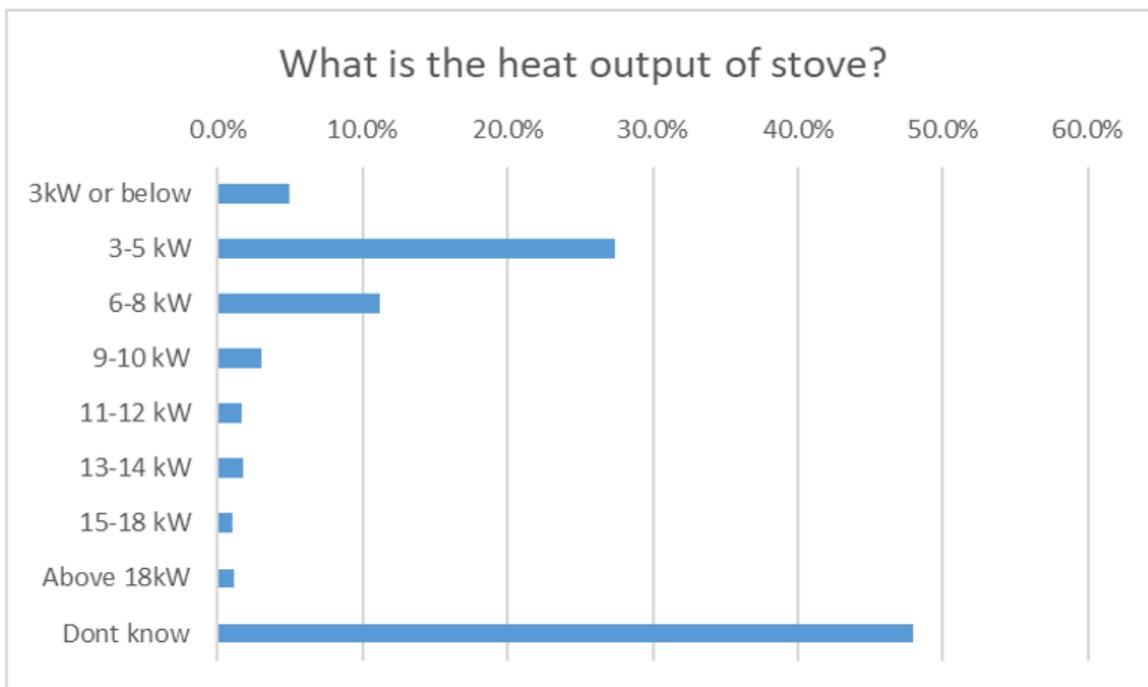
This includes only those respondents able to answer this question. Number of respondents: 845.

# Who installed your appliance? (Q21)



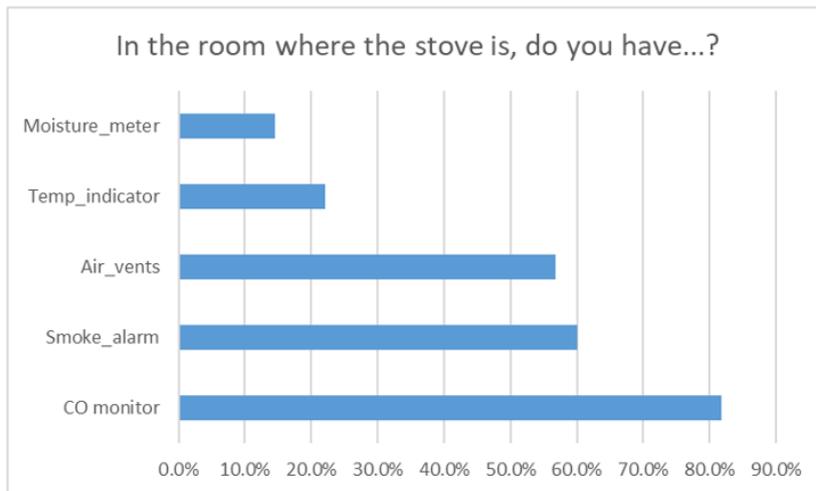
This includes only those respondents able to answer this question. Number of respondents: 910.

# Stove heat output (Q22)



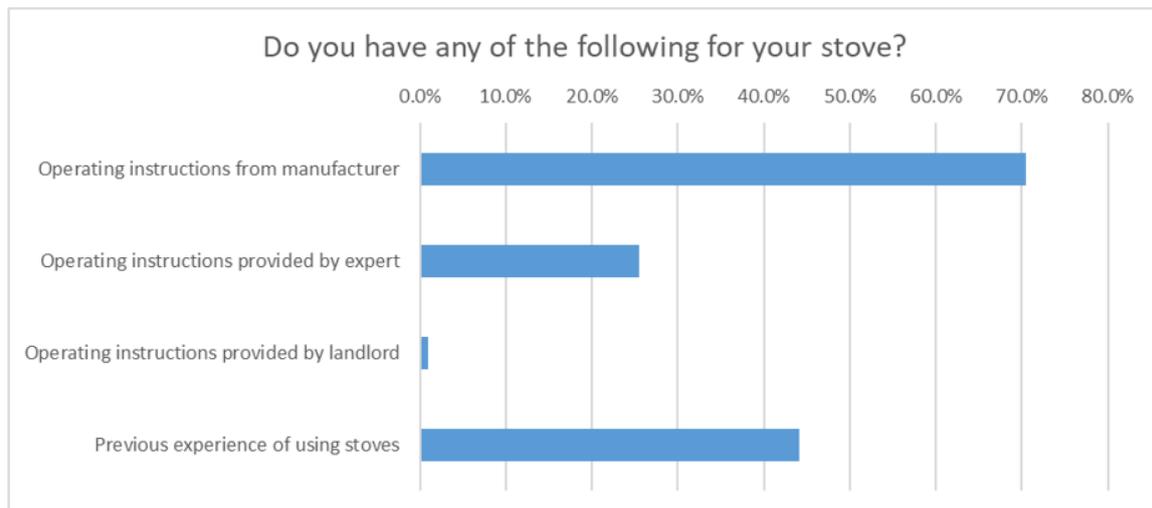
This includes only those respondents able to answer this question. Number of respondents: 906.

## In the room where your solid fuel appliance is located do you have...? (Q23)



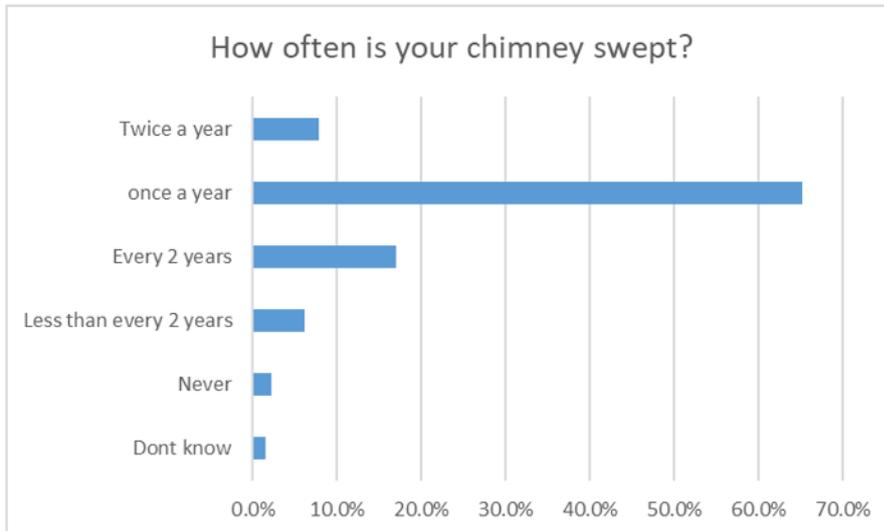
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 826.

## How do you know how to use your stove? (Q24)



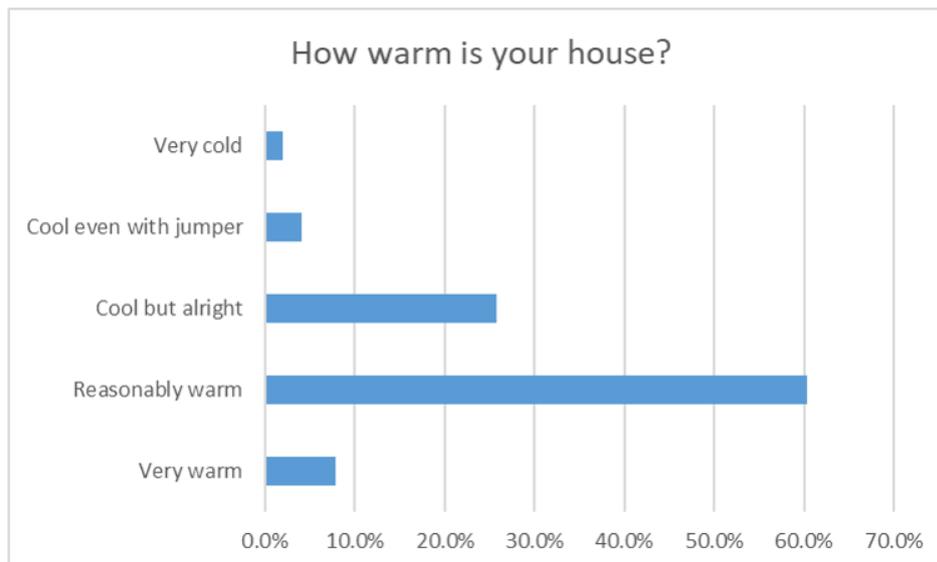
This includes only those respondents able to answer this question. A "tick all that apply" type of question. Number of respondents: 773.

## How often do you get your chimney/flue swept? (Q25)



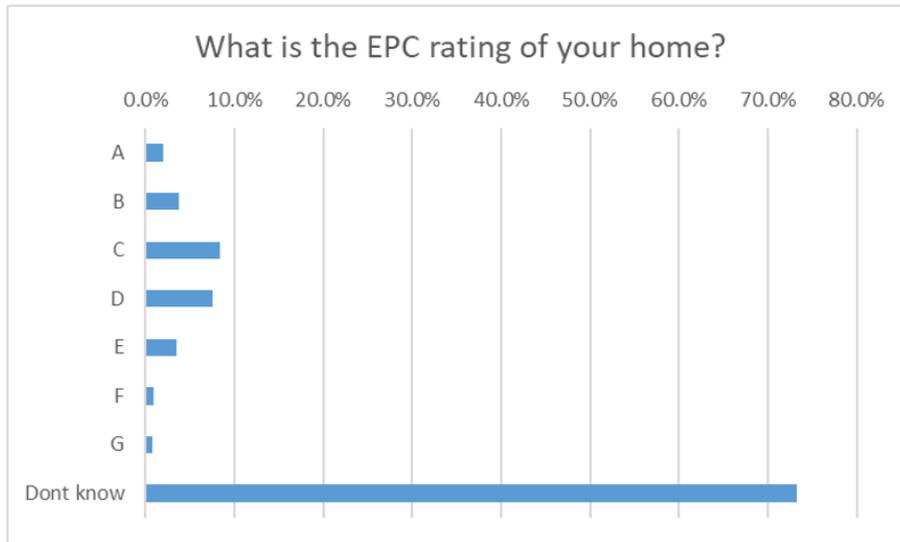
This includes only those respondents able to answer this question. Number of respondents: 921.

## How warm does your home feel over the winter months? (Q27)



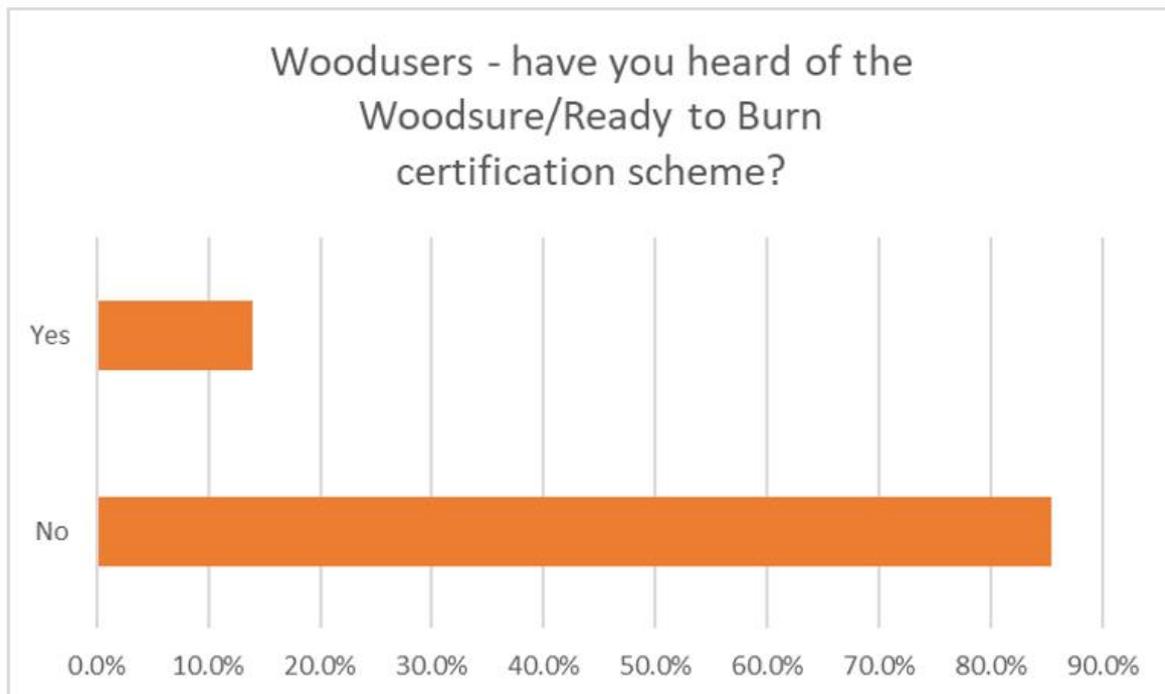
This includes only those respondents able to answer this question. Number of respondents: 1735.

## What is the energy efficiency performance of your home? (Q28)



This includes only those respondents able to answer this question. Number of respondents: 1742.

## Woodsure/Ready to Burn (Q30)



# Do you own or rent your home? (Q31)

