

To: *Citizens Advice Mid-North Yorkshire*
From: *YES Energy Solutions*
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Research:

Fuel poor households with no central heating in North Yorkshire

Foreword

‘A study to identify householders with no central heating facilities that are most likely to be living in fuel poverty in Craven, Hambleton, Harrogate, Richmondshire, Ryedale, Scarborough and Selby.’

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Overview

YES Energy Solutions has been commissioned by Citizens Advice Mid-North Yorkshire to identify fuel poor households with no central heating facilities in seven Local Authority areas in North Yorkshire.

Citizens Advice Mid-North Yorkshire manage the Warm and Well Scheme on behalf of the seven partner Councils, offering a range of support to vulnerable householders.

This research project is designed to help Citizens Advice Mid-North Yorkshire and the partner Councils gain a better understanding of fuel poverty levels in their areas and where central heating measures could be implemented and funded via various national fuel poverty alleviation funds. The study is also focussed on highlighting gas connection opportunities.

The Local Authority areas that are part of this study are:

- Craven
- Hambleton
- Harrogate
- Richmondshire
- Ryedale
- Scarborough
- Selby

6. Research objectives

- To identify households with no central heating in seven Local Authority areas in North Yorkshire that are more likely to be living in fuel poverty.
- To identify potential for funded gas connections through the Fuel Poverty Network Extension Scheme (FPNES) in the target sample.
- To identify potential for funded central heating systems through the Home Heating Cost Reduction Obligation (HHCRO) and Warm Homes Fund (WHF) in the target sample.
- To highlight the best opportunities in Hambleton, Richmondshire, Ryedale and Scarborough to form the basis of a category 1 and/or 2 WHF bid.

7. Funding opportunities

HHCRO – The Home Heating Cost Reduction Obligation is the main funding stream of the Government's Energy Company Obligation (ECO) programme. Major Energy Companies are set a legally binding target to fund a number of energy saving measures (including central heating) in fuel poor homes. Qualifying private residents must receive certain state benefits or meet the criteria set out in the relevant Council's Statement of Intent. Social residents must be in properties with an EPC rating of E, F or G (additional criteria applies to heating measures).

FPNES – The Fuel Poverty Network Extension Scheme is a Government programme which requires Gas Network Operators (e.g. Northern Gas Networks...etc) to fund gas connections for vulnerable householders. The qualifying criteria is linked to that of HHCRO but also includes the low income / high cost methodology.

WHF – The Warm Homes Fund is a programme launched by National Grid and administered by Affordable Warmth Solutions. Local Authorities have an opportunity to bid for funding to implement central heating schemes that reduce fuel poverty in their areas. The qualifying criteria is the same as the FPNES programme.

8. Methodology

4.1 Process

This research project utilises and compares publically available data sets, as well as gas pipeline mapping data provided by Northern Gas Networks. However, due to our licencing agreement with Northern Gas Networks, we are unable to display samples of gas pipeline maps in the findings of this study.

All available Energy Performance Certificates (EPCs) have been extracted in each Local Authority area. Addresses with two or more EPCs have been cleaned so that only the most recent EPC is retained.

All the extracted EPCs have then been categorised by Lower Super Output Area (LSOA). A LSOA is a defined geographical area that contains around 650 homes. The country is segmented by thousands of LSOAs which are ranked by their characteristics.

For the purpose of this research project, the LSOAs have been ranked by fuel poverty proportions as set out in the Government's sub-regional fuel poverty data set.

EPCs showing no record of central heating have been identified. And those that fall in a LSOA with a high proportion of fuel poor households have been highlighted.

Target samples have then been created and split by their relationship to the mains gas network:

- Urban – properties close to existing gas infrastructure that either have a gas supply or could be economically connected.
- Rural – properties not close to any gas infrastructure and cannot be economically connected to the mains gas grid.

The opportunities have been mapped out and checked against gas pipeline data. The hyperlinks to each map is included in this report.

4.2 Fuel Poor LSOAs

According to the Government's 2015 statistics, 12.4% of all households in the Yorkshire and Humber region were in fuel poverty, the third most affected region in England. The national fuel poverty average was 11.4%.

For the purpose of this study we have concentrated on LSOAs in the seven North Yorkshire Local Authorities that have a fuel poverty rating of 12.4% or higher, in line with the rest of the region. These areas are more likely to contain households that meet FPNES, HHCRO and WHF eligibility criteria.

We have also identified which properties fall in the bottom 25% most deprived LSOAs, as this is still one of the criteria for the WHF programme.

4.3 Considerations

This study uses EPCs lodged by thousands of Domestic Energy Advisors. It is very unlikely that all of the EPC data will be correct and there is no way of checking the quality of each certificate.

However, EPC data does provide an overview of the potential in each area and is currently the best source of publically available information to understand the energy efficiency of housing stock in defined locations.

Furthermore, not every property has an EPC and there will be further opportunities that have not been identified in this study.

On most EPCs, the tenure is defined if the property is privately or socially rented. However, owner occupiers are not clearly stated. For the purpose of this study we have assumed that if the EPC is not classified as 'let-out', then the tenure is 'homeowner.'

The Government's fuel poverty analysis was carried out in 2015 and based on a number of factors including the 2011 Census. This was the most up to date data set available at the time of when this study took place. Please note that the Government has since released revised fuel poverty statistics using 2016 data which was released on the 26th June 2018 - after the analysis stage of this study was completed. However, the data trends will not have drastically changed in 12 months. Government statistics should be considered a starting point to determine the impact of fuel poverty, rather than a tool to provide exact, up to date results.

This study focusses on areas with the highest proportions of fuel poverty. However, this is still generally low (the average across the seven Local Authority areas being 15.6% and the highest LSOA being 26.0%). So even through this targeted approach, it is unlikely that all identified households will qualify for funded support.

By comparing these data sets and recognising their flaws, reasonable recommendations have been highlighted to aid better informed engagement.

4.4 EPC data

All available EPCs have been extracted, cleaned and categorised by the primary and secondary heating system stated on each document. The data has been segmented by the following categories:

- **Number of Households with EPCs** – properties with a lodged EPC
- **Number of households with no central heating** –properties with a lodged EPC showing no evidence of central heating, heat pumps, biomass heating systems, community schemes and underfloor heating.
- **Number of fuel poor LSOAs** – LSOAs that have a fuel poverty proportion rating of 12.4% or more.
- **Number of households with no central heating in fuel poor LSOAs** - properties with a lodged EPC showing no evidence of central heating, heat pumps, biomass heating systems, community schemes and underfloor heating in a LSOA that has a fuel poverty proportion rating of 12.4% or more.

5. Statistics – all areas

5.1 Homes with no central heating

Local Authority	Estimated number of households	Number of households with EPCs	Number of households with no central heating	Number of fuel poor LSOAs	Number of households with no central heating in fuel poor LSOAs
Craven	24,922	12,503 (50.2%)	1,441	13	667 (46.3%)
Hambleton	38,672	19,400 (50.2%)	2,204	14	597 (27.1%)
Harrogate	68,116	35,256 (51.8%)	3,558	24	1,023 (28.8%)
Richmondshire	20,509	11,256 (54.9%)	1,269	17	826 (65.1%)
Ryedale	22,868	12,619 (55.2%)	1,540	16	1,018 (66.1%)
Scarborough	50,101	28,648 (57.2%)	4,278	29	2,454 (57.4%)
Selby	35,033	18,693 (53.4%)	1,860	6	264 (14.2%)
Well & Warm WHF	132,150	71,923 (54.4%)	9,291	76	4,895 (52.7%)
All	260,221	138,375 (53.2%)	16,150	119	6,849 (42.4%)

5.2 Urban & Rural Split

Local Authority	Number of households with no central heating in fuel poor LSOAs	Urban Split	Urban - properties with no gas facilities	Rural Split
Craven	667	432 (64.8%)	299	235 (35.2%)
Hambleton	597	75 (12.6%)	59	522 (87.4%)
Harrogate	1,023	682 (66.7%)	556	341 (33.3%)
Richmondshire	826	110 (13.3%)	106	716 (86.7%)
Ryedale	1,018	224 (22.0%)	183	794 (78.0%)
Scarborough	2,454	2,171 (88.5%)	1,796	283 (11.5%)
Selby	264	243 (92.0%)	189	21 (8.0%)
Well & Warm WHF	4,895	2,580 (52.7%)	2,144	2,315 (47.3%)
All	6,849	3,937 (57.5%)	3,188	2,912 (42.5%)

5.3 General observations (all areas)

- Over 53% of all households across the seven areas have an EPC, suggesting that additional opportunities could be almost doubled with further analysis.
- There is potential for funded gas connections and central heating installs in all areas.
- Over 40% of all homes with no central heating are in fuel poor areas with the largest concentrations in Richmondshire, Ryedale and Scarborough.
- There are slightly more urban opportunities than rural ones with the highest concentrations in Local Authority areas with large towns – Craven, Harrogate, Scarborough and Selby.
- Despite Craven having the LSOA with the highest proportion of fuel poor households, on the whole Scarborough has the largest proportion across the board.
- As you would expect, the larger urban Local Authority areas have more fuel poor LSOAs with more potential central heating installations. However, Ryedale (mainly a rural area) is close behind with nearly 800 opportunities.
- Hambleton, Richmondshire and Ryedale have a lot of potential for non-gas heating measures. Richmondshire and Ryedale have the most potential for non-gas heating measures in rural fuel poor LSOAs. Whereas Hambleton has the highest rural split.
- Scarborough and Harrogate have the most potential for gas connections and gas heating installs due to the existing gas infrastructure in the area. There is also potential in parts of Craven.
- Selby has the least fuel poor LSOAs and the fewest opportunities, but still has options for funded gas connections.

Breakdown by Local Authority

6. Craven

13	Fuel poor LSOAs (with over 12.4% of households in fuel poverty)
667	Households with no central heating in fuel poor LSOAs
435 (65.2%)	EPCs E, F or G
232 (34.8%)	EPCs A, B, C or D

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	34	101	276	19	430 (64.5%)
Private Rent	5	80	81	10	176 (26.3%)
Social	10	37	14	0	61 (9.1%)
All	49 (7.3%)	218 (32.7%)	371 (55.6%)	29 (4.3%)	667

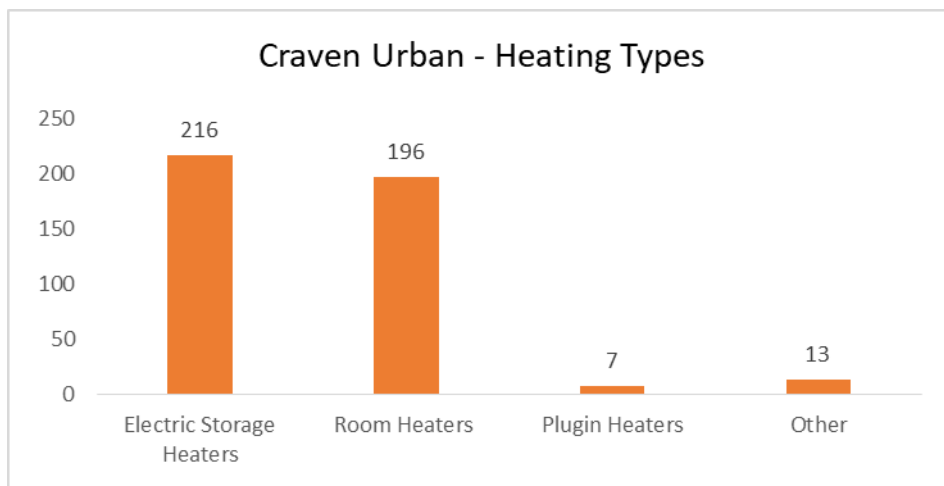
LSOA	Code	FP%	Opportunities
E01027578	Craven 006A	26.0%	39
E01027557	Craven 004A	18.9%	49
E01027581	Craven 006C	17.9%	110
E01027569	Craven 001C	17.8%	44
E01027586	Craven 007D	16.3%	36
E01027579	Craven 005D	15.5%	26
E01027562	Craven 002A	15.0%	56
E01027572	Craven 003C	14.8%	106
E01027582	Craven 006D	13.7%	63
E01027568	Craven 003A	13.1%	29
E01027564	Craven 008B	12.8%	26
E01027566	Craven 008D	12.6%	12
E01027570	Craven 001D	12.6%	71

6.1 Urban - Craven

432	Households with no central heating in fuel poor LSOAs
252 (58.3%)	E, F or G EPCs
180 (41.7%)	A, B, C or D EPCs
133 (30.8%)	Households with Mains Gas
14 (3.2%)	Households with Mains Gas in a bottom 25% LSOAs
299 (69.2%)	Households with No Mains Gas

[Craven Urban Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	20	80	156	16	272 (63%)
Private Rent	3	68	28	10	109 (25.2%)
Social	5	35	11	0	51 (11.8%)
All	28 (6.5%)	183 (42.4%)	195 (45.1%)	26 (6.0%)	432



Observations

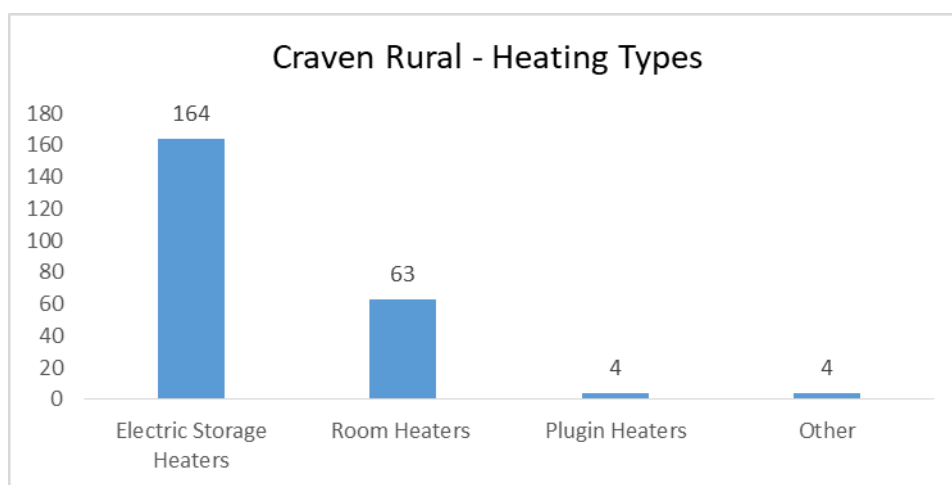
- Unlike more urban Local Authorities, fuel poverty is not confined to the urban areas of Craven.
- There are some opportunities but these are spaced out in six main clusters. Most are in central and southern Skipton.
- The highest levels of fuel poverty are in Skipton town (up to 26.0%) which is also the highest ranking fuel poor area in this study.
- Most of the private renting and social households are in Skipton and Settle.
- Just over half of all opportunities are considered to be the least energy efficient households (E, F or G)
- Most opportunities are houses and flats owned by homeowners.
- There are little opportunities to engage with Social Housing Providers – less than 12%.
- Over 30% already have a gas connection, but most of these are outside of the bottom 25% LSOAs.
- Most properties have electric storage heaters, but there are still a large proportion of properties with room heaters.

6.2 Rural - Craven

235 Households with no central heating in fuel poor LSOAs
 183 (77.9%) E, F or G EPCs
 52 (22.1%) A, B, C or D EPCs

Craven Rural Map

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	14	21	120	3	158 (67.2%)
Private Rent	2	12	53	0	67 (28.6%)
Social	5	2	3	0	10 (4.3%)
All	2101 (8.9%)	35 (14.9%)	176 (74.9%)	3 (1.3%)	235



Observations

- The majority of the housing stock (nearly 78%) is classed as not being energy efficient (E, F or G).
- There are high volumes of fuel poverty in rural areas in Craven (up to 18.9% in some areas)
- Most opportunities are houses owned by homeowners.
- There is little Social Housing in rural areas – only 4.3%.
- There are opportunities to engage with landlords but there are no real clusters for a targeted approach other than a small area around Bolton Abbey.
- Electric storage heaters is the main heating type.

7. Hambleton

14	Fuel poor LSOAs (with over 12.4% of households in fuel poverty)
597	Households with no central heating in fuel poor LSOAs
389 (65.2%)	EPCs E, F or G
208 (34.8%)	EPCs A, B, C or D

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	74	16	292	1	383 (64.2%)
Private Rent	25	16	98	0	139 (23.3%)
Social	51	12	11	1	75 (12.6%)
All	150 (25.1%)	44 (7.4%)	401 (67.2%)	2 (0.3%)	597

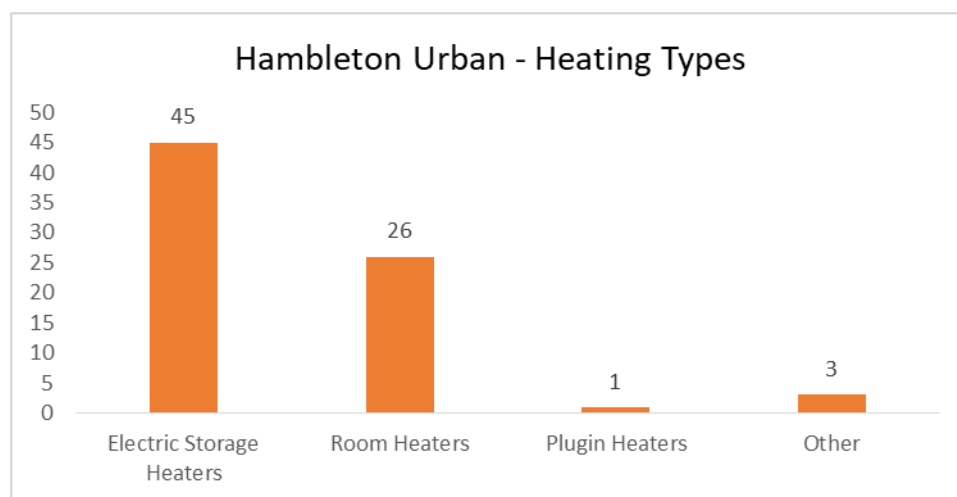
LSOA	Code	FP%	Opportunities
E01027613	Hambleton 003C	17.6%	66
E01027593	Hambleton 006D	17.5%	69
E01027617	Hambleton 003D	16.5%	11
E01027620	Hambleton 008A	15.3%	45
E01027628	Hambleton 007B	15.1%	40
E01027604	Hambleton 005B	15.0%	51
E01027637	Hambleton 008E	14.7%	33
E01027636	Hambleton 009D	14.6%	56
E01033066	Hambleton 007E	14.5%	0
E01027601	Hambleton 010D	14.0%	42
E01027622	Hambleton 010E	13.8%	47
E01027600	Hambleton 011A	13.3%	51
E01027635	Hambleton 009C	13.3%	49
E01027633	Hambleton 007C	12.6%	37

7.1 Urban - Hambleton

75	Households with no central heating in fuel poor LSOAs
42 (56.0%)	E, F or G EPCs
33 (44.0%)	A, B, C or D EPCs
16 (21.3%)	Households with Mains Gas
0 (0.0%)	Households with Mains Gas in a bottom 25% LSOAs
59 (78.7%)	Households with No Mains Gas

[Hambleton Urban Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	23	4	29	0	56 (74.7%)
Private Rent	3	8	7	0	18 (24%)
Social	0	0	0	1	1 (1.3%)
All	26 (34.7%)	12 (16%)	36 (48%)	1 (1.3%)	75



Observations

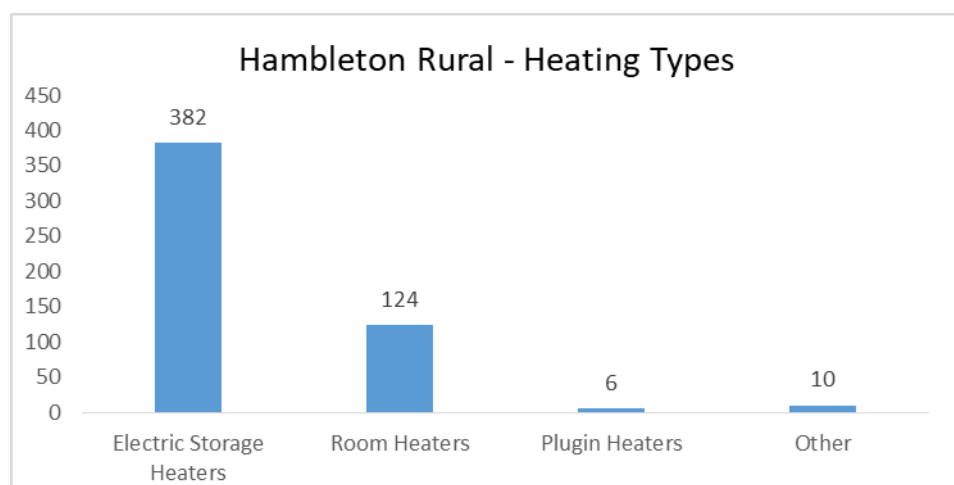
- There are two clusters of opportunities in Thirsk and Morton-on-Swale. These clusters are predominantly made up of homeowners and private renters who are in houses and bungalows.
- There are no households in the bottom 25% LSOAs and only 1% are social rented, indicating a low level of fuel poverty.
- A large amount of the area is off gas (78.7%) but could be economically connected.
- With 18 properties being private rented, there is limited opportunities to engage with private landlords. However the privately rented properties are clustered together in southern Thirsk and western Morton-on-Swale, so targeting these areas could be worthwhile.
- Like other areas, there are plenty of electric storage heaters and a good proportion of room heaters.

7.2 Rural - Hambleton

522 Households with no central heating in fuel poor LSOAs
 347 (66.5%) E, F or G EPCs
 175 (33.5%) A, B, C or D EPCs

Hambleton Rural Map

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	51	12	263	1	327 (62.6%)
Private Rent	22	8	91	0	121 (23.2%)
Social	51	12	11	0	74 (14.2%)
All	124 (23.8%)	32 (6.1%)	365 (70%)	1 (0.2%)	522



Observations

- A large amount of Hambleton’s housing stock is in rural areas (87.4%).
- Hambleton has the lowest amount of E, F or G EPCs compared to the other rural districts.
- There are no obvious clusters to target and even the Social Housing opportunities are sparsely spaced out.
- The majority of the housing stock is homeowners living in houses.
- The social housing stock is mainly made up of Bungalows suggesting a larger elderly population.
- Electric storage heaters is the main heating type.

8. Harrogate

23	Fuel poor LSOAs (with over 12.4% of households in fuel poverty)
1,023	Households with no central heating in fuel poor LSOAs
573 (56.0%)	EPCs E, F or G
450 (44.0%)	EPCs A, B, C or D

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	44	235	311	13	603 (58.9%)
Private Rent	11	186	96	6	299 (29.2%)
Social	22	74	23	2	121 (11.8%)
All	77 (7.5%)	495 (48.4%)	430 (42.0%)	21 (2.1%)	1,023

LSOA	Code	FP%	Opportunities
E01027657	Harrogate 013C	19.2%	39
E01027678	Harrogate 015E	18.8%	184
E01027658	Harrogate 013D	18.1%	52
E01027729	Harrogate 014F	17.1%	33
E01027701	Harrogate 006C	16.6%	35
E01027736	Harrogate 003C	16.0%	40
E01027659	Harrogate 015C	15.5%	119
E01027692	Harrogate 013E	15.4%	31
E01027738	Harrogate 010E	15.0%	14
E01027673	Harrogate 009C	14.9%	49
E01027667	Harrogate 001B	14.4%	35
E01027726	Harrogate 014C	14.3%	35
E01027666	Harrogate 001A	14.2%	52
E01027734	Harrogate 018C	14.0%	34
E01027735	Harrogate 018D	13.8%	15
E01027731	Harrogate 019D	13.6%	25
E01027703	Harrogate 016E	13.3%	51
E01027696	Harrogate 016D	13.1%	36
E01027684	Harrogate 016B	12.9%	36
E01027676	Harrogate 009D	12.8%	30
E01027690	Harrogate 010D	12.6%	24
E01027681	Harrogate 006A	12.5%	43
E01027737	Harrogate 003D	12.4%	11

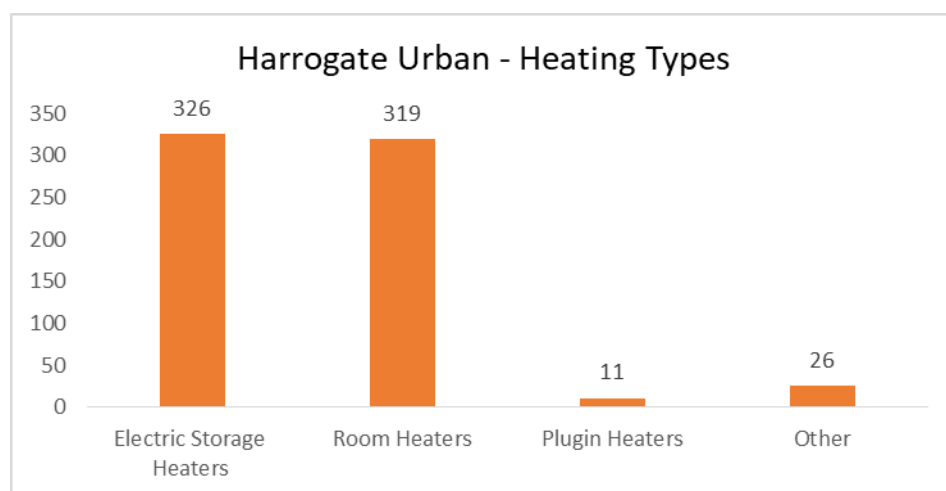
8.1 Urban - Harrogate

682	Households with no central heating in fuel poor LSOAs
336 (49.3%)	E, F or G EPCs
346 (50.7%)	A, B, C or D EPCs
126 (18.5%)	Households with Mains Gas
0 (0.0%)	Households with Mains Gas in a bottom 25% LSOAs*
556 (81.5%)	Households with No Mains Gas

[Harrogate Urban Map](#)

*2015 Government fuel poverty statistics show that fuel poverty levels are below 12.4% in the bottom 25% most deprived LSOAs in Harrogate, so these were excluded from the target sample.

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	13	225	134	12	384 (56.3%)
Private Rent	2	177	31	5	215 (31.5%)
Social	1	71	9	2	83 (12.2%)
All	16 (2.3%)	473 (69.4%)	174 (25.5%)	19 (2.8%)	682



Observations

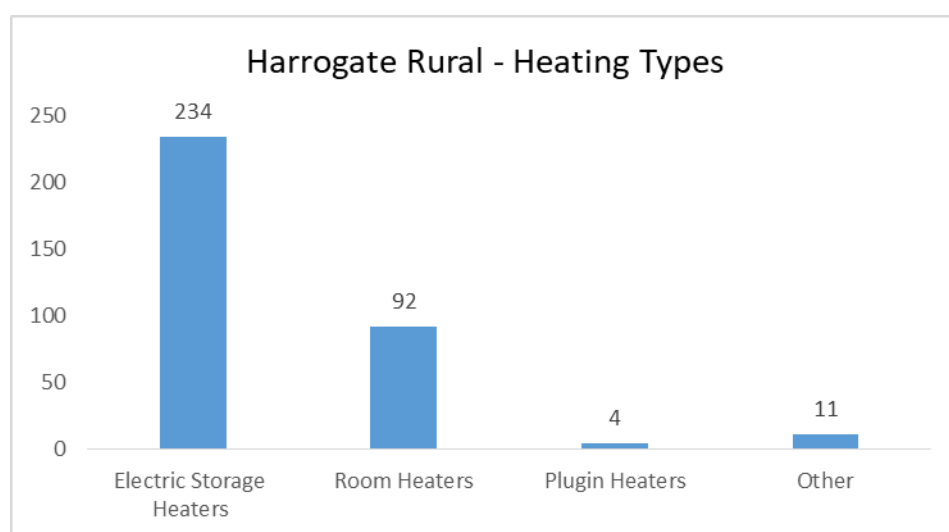
- There are three main clusters around the Harrogate urban area, the largest being the north of Harrogate Town Centre, which is made up of a mixture of homeowners, private renters and social housing.
- The other main clusters are in Starbeck and north east and southern Knaresborough; the main tenure in both of these areas is homeowners and private renters.
- The final cluster is along the B6165 with villages such as Summerbridge, Low Laithe and Glasshouses.
- A large amount of the area is off gas (81.5%) with plenty of opportunities for economical gas connections with neighbouring properties already on the network.
- Overall the majority of the opportunities are homeowners and privately renters in flats; these are particularly harder to target due to the logistics of connecting flats to gas, liaising with block management and ensuring the majority of residents take part.
- Unlike other areas (apart from Scarborough), there is an even mix of electric storage heaters and room heaters.

8.2 Rural - Harrogate

341 Households with no central heating in fuel poor LSOAs
 237 (69.5%) E, F or G EPCs
 104 (30.5%) A, B, C or D EPCs

[Harrogate Rural Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	31	10	177	1	219 (64.2%)
Private Rent	9	9	65	1	84 (24.6%)
Social	21	3	14	0	38 (11.1%)
All	61 (17.9%)	22 (6.5%)	256 (75.1%)	2 (0.6%)	341



Observations

- There are almost half the rural opportunities as there are in urban areas.
- There are no significant clusters of properties, they are all evenly spread throughout the area with slightly more in the North West of the district.
- The majority of properties are houses occupied by homeowners.
- There is a cluster of private renting householders near to the A65.
- Nearly 70% of the stock is in EPC band E, F or G which suggests other energy efficiency measures would need to be implemented (insulation...etc).
- There is a small proportion of Social Housing which is mainly made up of bungalows and houses.
- Electric storage heaters is the main heating type.

9. Richmondshire

17	Fuel poor LSOAs (with over 12.4% of households in fuel poverty)
826	Households with no central heating in fuel poor LSOAs
617 (74.7%)	EPCs E, F or G
209 (25.3%)	EPCs A, B, C or D

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	51	28	414	6	499 (60.4%)
Private Rent	19	44	147	1	211 (25.5%)
Social	42	51	22	1	116 (14.0%)
All	112 (13.6%)	123 (14.9%)	583 (70.6%)	8 (1.0%)	826

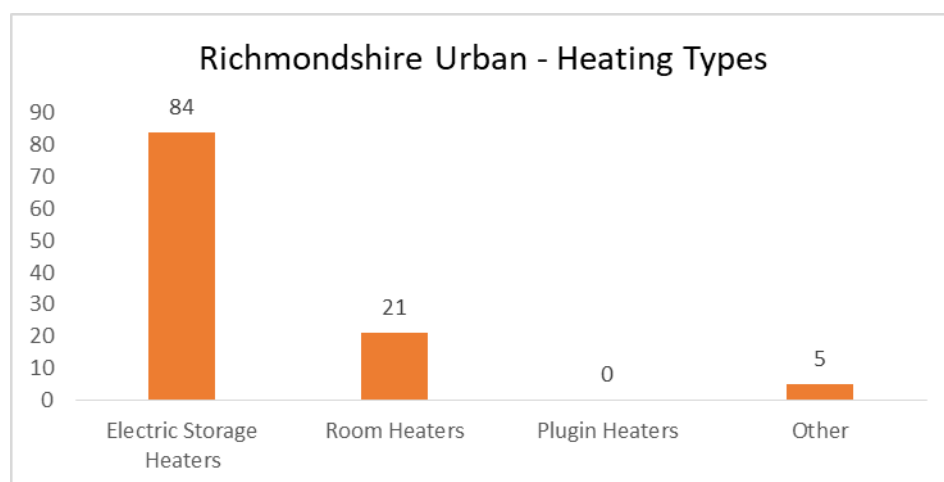
LSOA	Code	FP%	Opportunities
E01027758	Richmondshire 006D	17.8%	47
E01027744	Richmondshire 006A	17.4%	55
E01027752	Richmondshire 001C	17.0%	47
E01027742	Richmondshire 005A	16.7%	80
E01027773	Richmondshire 005E	16.7%	96
E01027762	Richmondshire 001F	16.6%	37
E01027764	Richmondshire 005D	15.4%	116
E01027763	Richmondshire 005C	15.2%	68
E01027753	Richmondshire 005B	14.9%	71
E01033184	Richmondshire 004H	14.7%	0
E01027770	Richmondshire 002F	14.5%	75
E01027760	Richmondshire 006E	13.8%	73
E01027771	Richmondshire 004E	13.5%	0
E01027754	Richmondshire 004C	13.2%	4
E01027751	Richmondshire 001B	13.0%	23
E01027747	Richmondshire 003C	12.9%	13
E01027761	Richmondshire 001E	12.4%	21

9.1 Urban - Richmondshire

110	Households with no central heating in fuel poor LSOAs
78 (70.9%)	E, F or G EPCs
32 (29.1%)	A, B, C or D EPCs
4 (3.6%)	Households with Mains Gas
0 (0.0%)	Households with Mains Gas in a bottom 25% LSOAs
106 (96.4%)	Households with No Mains Gas

[Richmondshire Urban Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	7	8	26	2	43 (39.1%)
Private Rent	4	27	17	0	48 (43.6%)
Social	5	8	5	1	19 (17.3%)
All	16 (14.5%)	43 (39.1%)	48 (43.6%)	3 (2.8%)	110



Observations

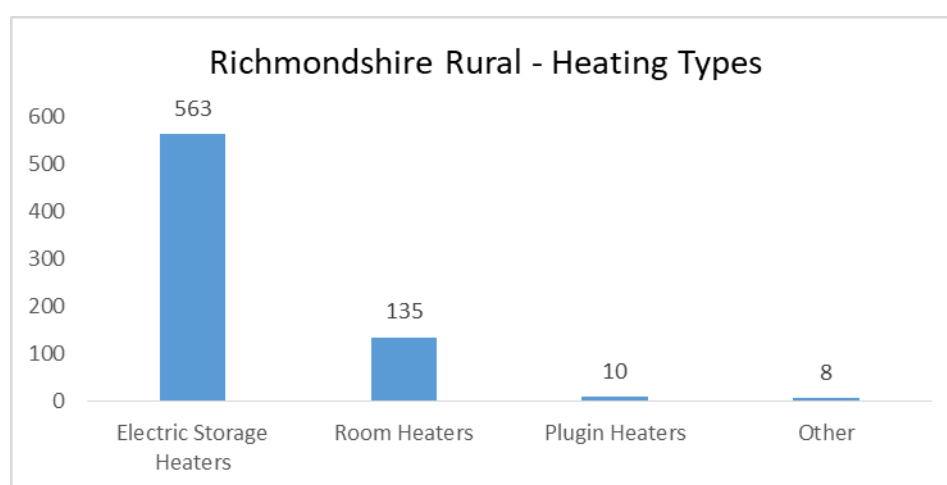
- There are not many urban opportunities in Richmondshire (only 110) and these are separated in six small clusters.
- The biggest cluster is in the centre of Richmond, which is mainly made up of private renting tenants in flats.
- The next biggest cluster, albeit small, is in Catterick – there is no social housing here.
- Other clusters are made up of just a few households.
- There is a higher proportion of E, F and G households compared to other urban areas across North Yorkshire.
- The majority of houses are not connected to mains gas; Richmondshire has the lowest proportion of properties connected to gas across the districts (although other urban areas have more non gas properties).
- Electric storage heaters is the main heating type.

9.2 Rural - Richmondshire

716 Households with no central heating in fuel poor LSOAs
 540 (75.4%) E, F or G EPCs
 176 (24.6%) A, B, C or D EPCs

[Richmondshire Rural Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	44	20	388	4	456 (63.7%)
Private Rent	15	17	130	1	163 (22.8%)
Social	37	43	17	0	97 (13.5%)
All	96 (13.4%)	80 (11.2%)	535 (74.4%)	5 (0.7%)	716



Observations

- Richmondshire has the second largest proportion of rural opportunities across the districts. Also the second largest amount of rural homes.
- In a similar fashion to the other districts, the rural area is a lot vaster than the urban areas, therefore it is harder to identify clear clusters to target.
- The majority of the stock is houses occupied by homeowners and private renters.
- There are some flats - the majority owned by Social Housing providers.
- There is a good proportion of privately rented homes (163), mainly in the South of the district.
- Along with Ryedale, Richmondshire has the largest amount of rural social housing stock compared to the other districts.
- Electric storage heaters is the main heating type.

10. Ryedale

16	Fuel poor LSOAs (with over 12.4% of households in fuel poverty)
1,018	Households with no central heating in fuel poor LSOAs
705 (69.3%)	EPCs E, F or G
313 (30.7%)	EPCs A, B, C or D

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	114	35	468	2	619 (60.8%)
Private Rent	32	44	162	6	244 (24.0%)
Social	68	55	32	0	155 (15.2%)
All	214 (21.0%)	134 (13.2%)	662 (65.0%)	8 (0.8%)	1,018

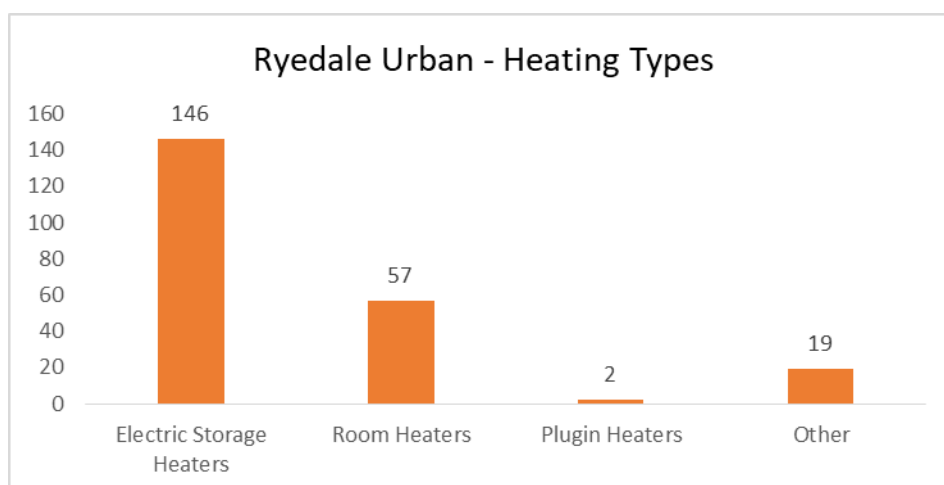
LSOA	Code	FP%	Opportunities
E01027779	Ryedale 004A	21.9%	35
E01027800	Ryedale 003D	19.1%	47
E01027790	Ryedale 008F	18.0%	49
E01027777	Ryedale 001B	17.5%	64
E01027802	Ryedale 002F	17.2%	66
E01027796	Ryedale 004B	16.8%	88
E01027797	Ryedale 007D	16.7%	32
E01027778	Ryedale 007B	16.2%	84
E01027776	Ryedale 001A	16.2%	48
E01027780	Ryedale 003B	15.9%	35
E01027775	Ryedale 003A	15.8%	57
E01027803	Ryedale 004D	15.7%	49
E01027782	Ryedale 007C	14.9%	56
E01027774	Ryedale 007A	14.0%	32
E01027798	Ryedale 004C	13.4%	94
E01027799	Ryedale 007E	13.2%	56
E01027787	Ryedale 008C	12.7%	19
E01027785	Ryedale 008A	12.5%	107

10.1 Urban - Ryedale

224	Households with no central heating in fuel poor LSOAs
116 (51.8%)	E, F or G EPCs
108 (48.2%)	A, B, C or D EPCs
41 (18.3%)	Households with Mains Gas
0 (0.0%)	Households with Mains Gas in a bottom 25% LSOAs
183 (81.7%)	Households with No Mains Gas

[Ryedale Urban Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	11	28	68	1	108 (44.3%)
Private Rent	1	35	19	4	59 (24.2%)
Social	2	50	5	0	57 (23.4%)
All	14 (5.7%)	113 (46.3%)	92 (37.7%)	5 (2.0%)	224



Observations

- The largest cluster is in Malton / Norton. This cluster is made up of homeowners, private renters and a small amount of social housing.
- Most of the other clusters are in villages along the A170. These are all homeowners and private renters.
- There are a good proportion of households that already have a gas supply but don't have central heating facilities (18.3%).
- 81.7% are completely off the mains gas network, but near to gas infrastructure.
- Although most opportunities are homeowners, collectively there are more tenants either renting privately or through a social housing provider. There is also almost an equal split of private renting and social housing properties across the area. Engaging with landlords will be key.
- The most common property type is flats (46.3%) but there are still plenty of houses (37.7%) that could be targeted.
- Electric storage heaters is the main heating type.

10.2 Rural - Ryedale

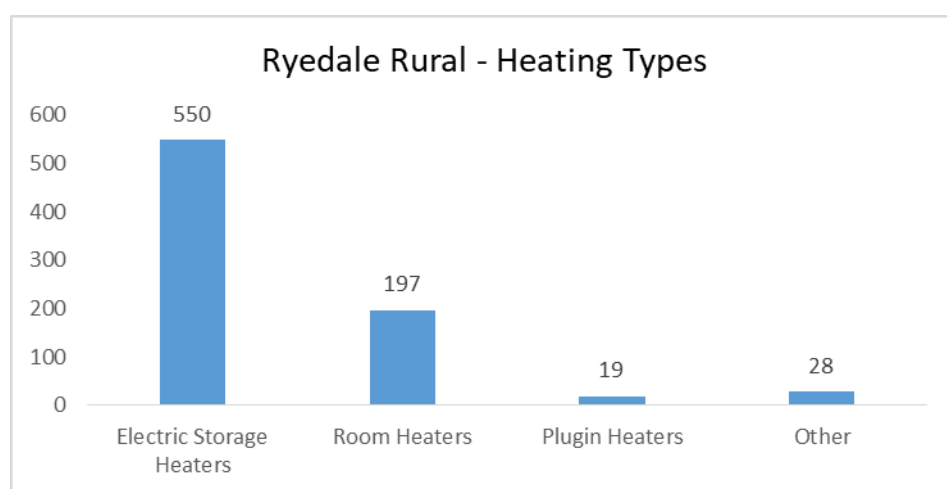
794 Households with no central heating in fuel poor LSOAs

589 (74.2%) E, F or G EPCs

205 (25.8%) A, B, C or D EPCs

[Ryedale Rural Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	103	7	400	1	511 (64.4%)
Private Rent	31	9	143	2	185 (23.3%)
Social	66	5	27	0	98 (12.3%)
All	200 (25.2%)	21 (2.6%)	570 (71.8%)	3 (0.4%)	794



Observations

- Ryedale has the most rural opportunities across all districts with high fuel poverty proportions.
- There are opportunities across all tenures with the largest being homeowners in houses.
- There are clear opportunities to engage landlords with 23.3% of all homes privately rented.
- There are lots of bungalows, suggesting a large elderly population. This could be treated as a scheme in its own right and likely to meet Ryedale's Statement of Intent.
- There are not many flats in the area.
- The majority of social housing is situated south of the A170.
- 74.2% of all rural properties are E, F or G, one of the highest in rural areas.
- Ryedale and Richmondshire have the largest amount of social housing stock in rural areas compared to the other districts.
- Electric storage heaters is the main heating type.

11. Scarborough

29	Fuel poor LSOAs (with over 12.4% of households in fuel poverty)
16	25% bottom LSOAs
2,454	Households with no central heating in fuel poor LSOAs
1,506 (61.4%)	EPCs E, F or G
948 (38.6%)	EPCs A, B, C or D

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	57	688	626	48	1,419 (57.8%)
Private Rent	7	681	136	55	879 (35.8%)
Social	6	124	21	5	156 (6.4%)
All	70 (2.9%)	1,493 (60.8%)	783 (32.0%)	108 (4.4%)	2,454

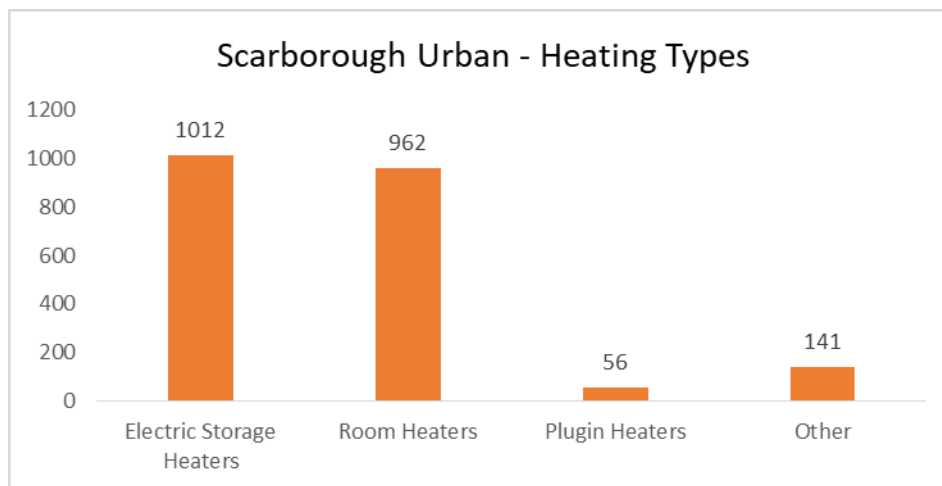
LSOA	Code	FP%	Opportunities
E01027811	Scarborough 008B	25.6%	33
E01027812	Scarborough 008C	24.8%	59
E01027810	Scarborough 008A	22.8%	33
E01027825	Scarborough 009B	21.6%	26
E01027846	Scarborough 006C	20.5%	47
E01027847	Scarborough 006D	19.7%	271
E01027852	Scarborough 010B	19.3%	170
E01027804	Scarborough 010A	18.9%	229
E01027822	Scarborough 002B	18.8%	86
E01027862	Scarborough 008E	18.6%	79
E01027806	Scarborough 006B	18.5%	202
E01027826	Scarborough 009C	16.8%	52
E01027813	Scarborough 002A	16.1%	53
E01027841	Scarborough 002D	16.0%	73
E01027857	Scarborough 004F	15.8%	19
E01027869	Scarborough 001C	15.5%	166
E01027861	Scarborough 009D	15.3%	86
E01027805	Scarborough 006A	15.1%	62
E01027865	Scarborough 003C	15.0%	145
E01027851	Scarborough 008D	15.0%	20
E01027874	Scarborough 007D	14.6%	9
E01027820	Scarborough 012C	14.6%	16
E01027814	Scarborough 013A	14.1%	36
E01027840	Scarborough 002C	13.8%	127
E01027831	Scarborough 004C	13.2%	21
E01027864	Scarborough 003B	12.9%	50
E01027854	Scarborough 010D	12.6%	227
E01027821	Scarborough 004A	12.6%	41
E01027819	Scarborough 012B	12.4%	16

11.1 Urban - Scarborough

2,171 Households with no central heating in fuel poor LSOAs
 1,272 (58.6%) E, F or G EPCs
 899 (41.4%) A, B, C or D EPCs
 376 (17.3%) Households with Mains Gas
 278 (12.8%) Households with Mains Gas in a bottom 25% LSOAs
 1,796 (82.7%) Households with No Mains Gas

Scarborough Urban Map

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	28	669	446	44	1,187 (54.7%)
Private Rent	4	679	95	54	832 (38.3%)
Social	4	124	19	5	152 (7.0%)
All	36 (1.7%)	1,472 (67.8%)	560 (25.8%)	103 (4.7%)	2,171



Observations:

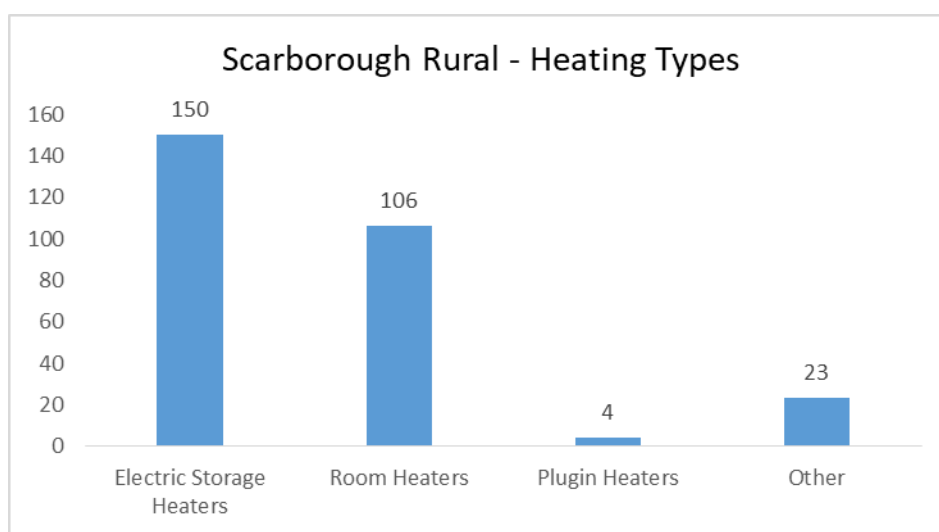
- Most opportunities are in Scarborough, to the East of the town centre. This could even be treated as a project in isolation.
- There is also promising clusters in Whitby, either side of the estuary.
- The majority of the opportunities are homeowners living in flats. The main risk being that flats tend to be grouped together in complexes, and gas connections will only take place when the majority of residents sign up.
- Compared to other districts, Scarborough has the highest amount of private renters in the area - but also mainly in flats.
- There is limited Social Housing opportunities in comparison, but enough to warrant engagement with local housing providers.
- There are a good proportion of properties already on mains gas with no central heating (17.3%).
- Most properties with an existing gas connection are in a qualifying 25% bottom LSOA which is one of the WHF criteria and easier to verify.
- Similar to Harrogate, there is a similar proportion of electric storage heaters and room heaters.

11.2 Rural - Scarborough

283 Households with no central heating in fuel poor LSOAs
 234 (82.7%) E, F or G EPCs
 49 (17.3%) A, B, C or D EPCs

[Scarborough Rural Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	29	19	180	4	232 (82.0%)
Private Rent	3	2	41	1	47 (16.6%)
Social	2	0	2	0	4 (1.4%)
All	34 (12.0%)	21 (7.4%)	223 (78.8%)	5 (1.8%)	283



Observations:

- Most of the rural opportunities are in the North East of the region in the moors around Whitby and Staithes.
- A high volume of the stock (82.7%) is E, F or G rated – the highest of all rural areas.
- The majority of the opportunities are homeowners in houses.
- There are opportunities to engage with landlords but these are small in comparison. The properties are mainly situated in hamlets to the south of the A171. The housing stock is generally some of the least efficient in the area.
- There is very little Social Housing.
- Electric storage heaters is the main heating type, but there are also a good proportion of room heaters.

12. Selby

6 Fuel poor LSOAs (with over 12.4% of households in fuel poverty)
 264 Households with no central heating in fuel poor LSOAs
 98 (37.1%) E, F or G EPCs
 166 (62.9%) A, B, C or D EPCs

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	1	34	59	4	98 (37.1%)
Private Rent	1	28	23	2	54 (20.5%)
Social	30	71	10	1	112 (42.4%)
All	32 (12.1%)	133 (50.4%)	92 (34.9%)	7 (2.7%)	264

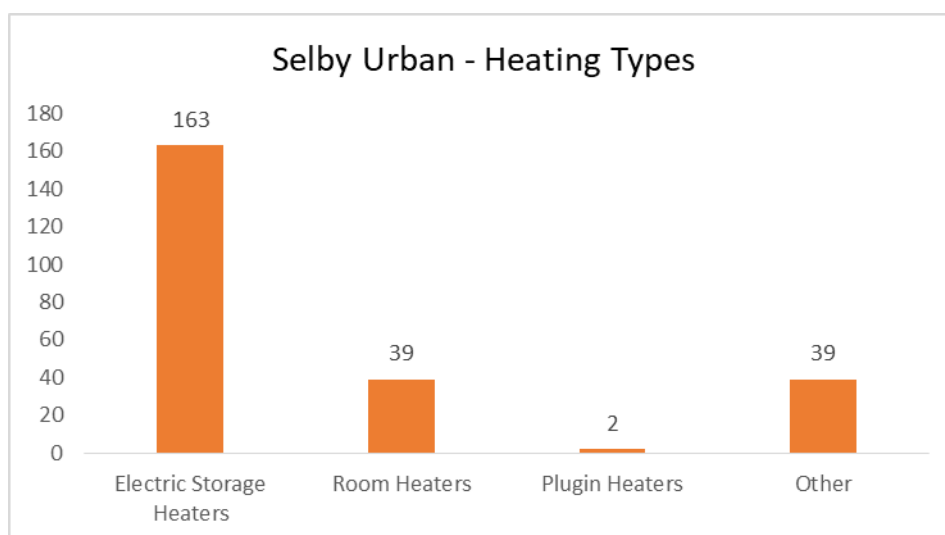
LSOA	Code	FP%	Opportunities
E01027908	Selby 005D	15.4%	104
E01027878	Selby 005A	14.4%	51
E01027910	Selby 005F	13.1%	26
E01027875	Selby 002A	12.9%	23
E01027918	Selby 001A	12.8%	20
E01027907	Selby 005C	12.7%	40

12.1 Urban

243	Households with no central heating in fuel poor LSOAs
83 (34.2%)	E, F or G EPCs
160 (65.8%)	A, B, C or D EPCs
54 (22.2%)	Households with Mains Gas
21 (8.6%)	Households with Mains Gas in a bottom 25% LSOAs
189 (77.8%)	Households with No Mains Gas

[Selby Urban Map](#)

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	1	34	48	4	87 (35.8%)
Private Rent	1	28	15	2	46 (18.9%)
Social	29	71	9	1	110 (45.3%)
All	31 (12.8%)	133 (54.7%)	72 (29.6%)	7 (2.8%)	243



Observations

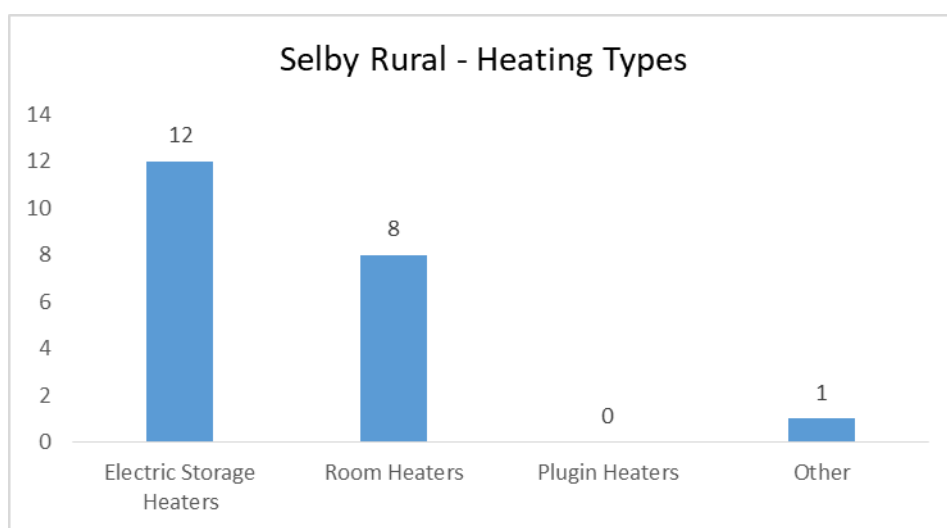
- There are two main clusters in Tadcaster and Selby.
- There is lots of Social Housing in the area. In fact Selby has the highest percentage of urban Social Housing compared to the other urban districts.
- However, Selby has the lowest amount of E, F or G properties (34.2%) compared to the other urban districts which suggests that the Social Housing providers look after their stock.
- The majority of the housing stock is flats occupied by social renters. This could be beneficial if the relevant Social Housing providers have an appetite for gas connections and budget for larger projects with scalability.
- There are also many houses occupied by homeowners that are close to the flats and could be part of the same gas connection scheme.
- Most properties are not connected to gas, and of the ones that are around a third are in a bottom 25% LSOA.
- Electric storage heaters is the main heating type.

12.2 Rural

21 Households with no central heating in fuel poor LSOAs
 15 (71.4%) E, F or G EPCs
 6 (28.6%) A, B, C or D EPCs

Selby Rural Map

Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	0	0	11	0	11 (52.4%)
Private Rent	0	0	8	0	8 (38.1%)
Social	1	0	1	0	2 (9.5%)
All	1 (4.8%)	0 (0%)	20 (95.2%)	0 (0%)	21



Observations

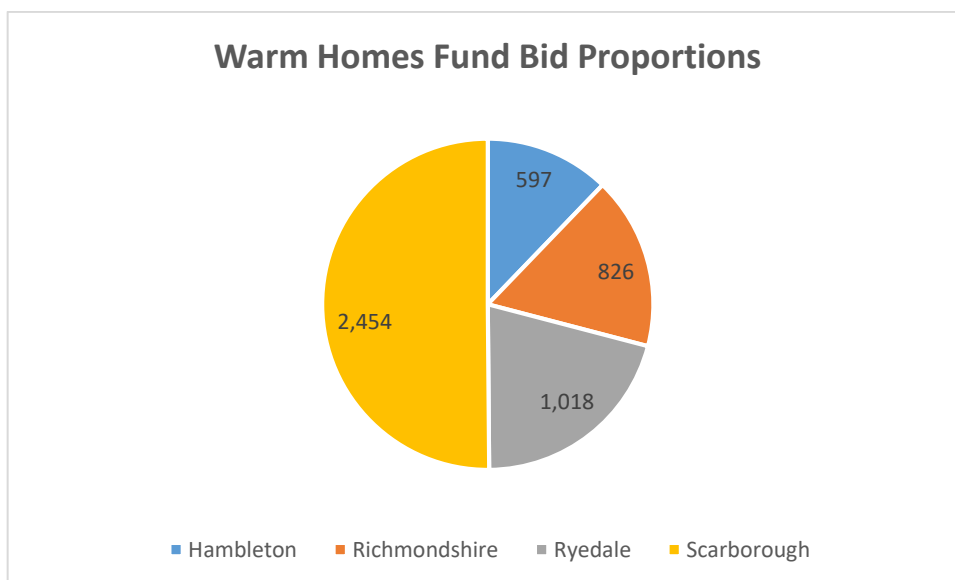
- There are limited rural opportunities in Selby (only 21).
- Unlike other rural areas, these are concentrated in two main target clusters: Appleton Roebuck and Bolton Percy.
- The majority of the housing stock is houses occupied by homeowners.
- All the private renters are in houses, these houses are spread out across the clusters.
- Compared to the other districts, Selby has the smallest amount of Social Housing with no central heating in rural areas.
- Similar to other areas, there is a mix of electric storage heaters and room heaters.

13. Warm Homes Fund Bid

Hambleton, Richmondshire, Ryedale and Scarborough

76 Fuel poor LSOAs (with over 12.4% of households in fuel poverty)
 4,895 Households with no central heating in fuel poor LSOAs
 3,218 (65.7%) E, F or G EPCs
 1,677 (34.3%) A, B, C or D EPCs

Local Authority	Urban Split	Rural Split	All
Hambleton	75	522	597 (12.2%)
Richmondshire	110	716	826 (16.9%)
Ryedale	224	794	1,018 (20.8%)
Scarborough	2,171	283	2,454 (50.1%)
All	2,580 (52.7%)	2,315 (47.3%)	4,895

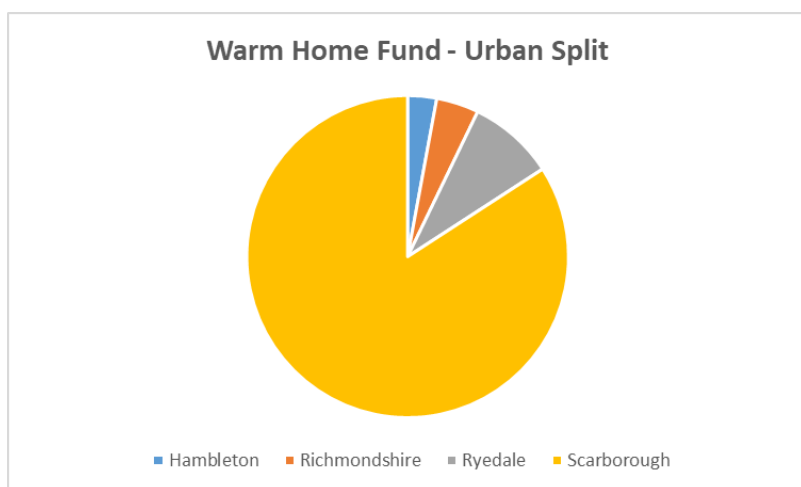


Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	296	767	1,800	57	2,920 (59.6%)
Private Rent	83	785	543	62	1,473 (30.1%)
Social	167	242	86	7	502 (10.3%)
All	546 (11.2%)	1,794 (36.6%)	2,429 (49.6%)	126 (2.6%)	4,895

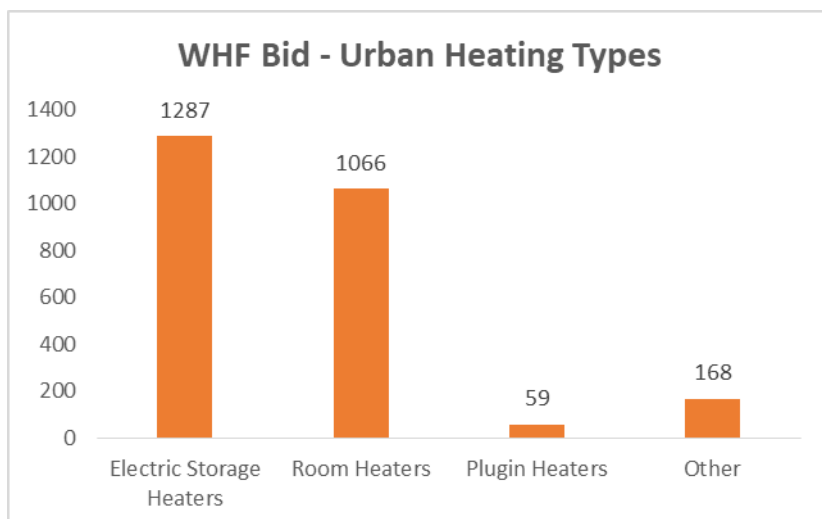
13.1 WHF Bid - Urban

2,580 Households with no central heating in fuel poor LSOAs
 1,508 (58.4%) E, F or G EPCs
 1,072 (41.6%) A, B, C or D EPCs
 437 (16.9%) Households with Mains Gas
 278 (10.8%) Households with Mains Gas in a bottom 25% LSOAs
 2,144 (83.1%) Households with No Mains Gas

Local Authority	Urban Split
Hambleton	75 (2.9%)
Richmondshire	110 (4.3%)
Ryedale	224 (8.7%)
Scarborough	2,171 (84.1%)
All	2,580



Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	69	709	569	47	1,394 (54.0%)
Private Rent	12	749	138	58	957 (37.1%)
Social	11	182	29	7	229 (8.9%)
All	92 (3.6%)	1,640 (63.6%)	736 (28.5%)	112 (4.3%)	2,580



Observations

- A slight majority of properties are in EPC band E, F or G. Richmondshire has the highest proportion of E, F and G properties.
- There is a good proportion of homes already on gas (437) that could get central heating installed through the WHF. And over half are in a bottom 25% LSOA, so would receive automatic validation for the funding.
- Only Scarborough has LSOAs that are in the bottom 25% most deprived category.
- The majority of opportunities will need a gas connection.
- There is a pretty even split between homeowners and rented properties (private / social) so engaging with landlords will be key.
- The majority of opportunities are in flats and many are owned by landlords. However, there are clusters of owner occupiers and many in the Scarborough area where the majority of the flats are situated.
- There are a good proportion of houses that could be targeted (over 700) which should be the centre of the bid as these are far easier to connect to the gas network than flats.
- Scarborough holds the most urban opportunities and these are mainly in Scarborough town centre.
- There are limited opportunities for Social Housing in all areas. The highest proportion being in Ryedale at 23.4% of all stock, but the most social opportunities being in Scarborough.
- Electric storage heaters are the main heating type, but there are also a high proportion of room heaters.
- There are limited urban opportunities in Richmondshire and Hambleton. Ryedale does have some urban opportunities (224) but these are mainly confined to Malton/Norton.

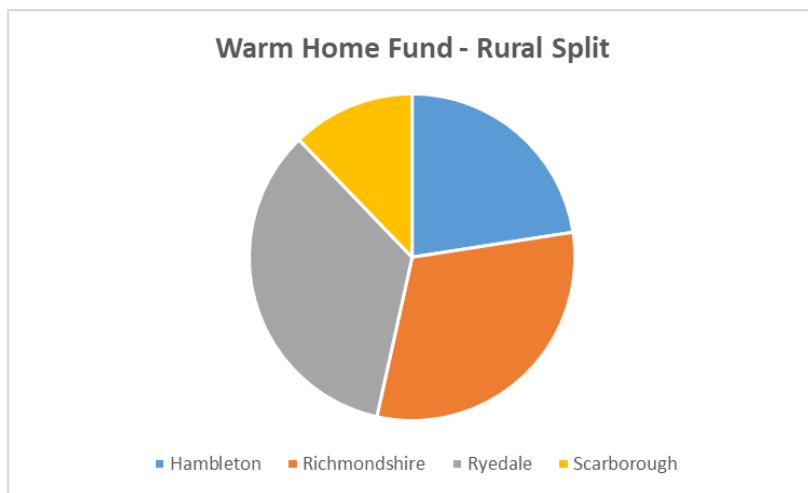
Bid recommendations:

- Focus mainly on Scarborough for a category 1 submission.
- Engage with social and private landlords to gauge appetite for gas central heating.
- Target homes with a gas supply first and those in the bottom 25% most deprived LSOAs.
- Concentrate on houses and bungalows as they are easier to connect to gas than flats.
- Only target flats where a Social Housing provider or private landlord owns the majority of the stock in any one block and is committed to match fund the work. This will enable the gas connection to progress regardless of how many owner occupiers sign up. It will also prompt owner occupiers to sign up as their neighbours (social or private renters) will be taking advantage of the scheme.
- Carry out additional checks to find suitable flats that are not contained within large complexes (e.g. two story upstairs / downstairs flats) as these can be connected in a similar fashion to houses.

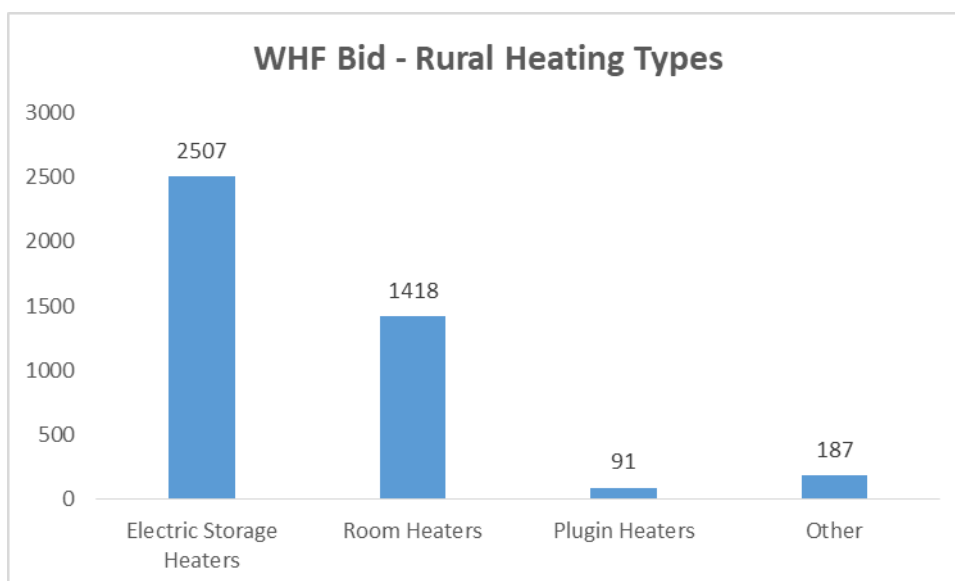
13.2 WHF Bid - Rural

2,315 Households with no central heating in fuel poor LSOAs
 1,710 (73.9%) E, F or G EPCs
 605 (26.1%) A, B, C or D EPCs

Local Authority	Rural Split
Hambleton	522 (22.6%)
Richmondshire	716 (30.9%)
Ryedale	794 (34.3%)
Scarborough	283 (12.2%)
All	2,315



Type	Bungalows	Flats	Houses	Maisonettes	All
Homeowners (assumed)	227	58	1,231	10	1,526 (65.9%)
Private Rent	71	36	405	4	516 (22.3%)
Social	156	60	57	0	273 (11.8%)
All	454 (19.6%)	154 (6.7%)	1,693 (73.1%)	14 (0.6%)	2,315



Observations

- The majority of the opportunities are E, F or G. This also suggests that additional energy saving measures (e.g. insulation improvements) will need to be considered within the bid.
- Houses makes up the largest proportion of the housing stock.
- There are a good proportion of bungalows, suggesting an older demographic which could qualify for WHF via each Council's Statement of Intent. However, just under a third of the bungalows are owned by Social Housing providers and these cannot be supported via Flexible Eligibility criteria. Most bungalows are in Ryedale and Hambleton.
- There are not many flats, although targeting flats is not as problematic for non-gas heating measures.
- There is a large proportion of rural homeowners – more than in the urban areas.
- The majority of the opportunities are in Ryedale and Richmondshire. Hambleton also has a good proportion of suitable stock, whereas Scarborough has limited opportunities that are mainly contained in the north east of the region.
- There are opportunities to engage with Social Housing providers in all of the areas apart from Scarborough which has limited rural social housing.
- Electric storage heaters is the main heating type, but there are also a good proportion of room heaters that are split evenly across each area.
- Targeting will be more sporadic, as there are no obvious clusters and opportunities are sparsely spaced out in each area.

Bid recommendations:

- There are opportunities for a category 2 submission, but from YES Energy Solutions' own experience of managing WHF schemes, identifying qualifying fuel poor households in rural areas is far more difficult than in urban areas, despite what the data trends suggests. An air of caution should be considered when deciding install numbers for the bid.
- The bid should be focussed on homeowners in Hambleton, Ryedale and Richmondshire.
- Scarborough should still be included in the rural bid as there are still 283 opportunities, but the Local Authority will benefit more from a category 1 submission should it be successful.
- Opportunities to work with private landlords should be explored as 22.3% of all the properties are privately rented.
- Relevant Social Housing providers should be identified and engaged with prior to writing the bid.

14. Data sets

The following data sets have been used and compared for this study:

- Energy Performance Certificate (EPC) data
<https://epc.opendatacommunities.org>
- Fuel poverty data by Local Authority LSOA
<https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2017>
- Postcode and LSOA verification
<https://eco.locationcentre.co.uk/>
- Northern Gas Networks - gas pipe line maps
Available via licencing agreement only

A full copy of the data extract has been provided to accompany this study:

Appendix A - Craven Data

Appendix B – Hambleton Data

Appendix C – Harrogate Data

Appendix D – Richmondshire Data

Appendix E – Ryedale Data

Appendix F – Scarborough Data

Appendix G – Selby Data