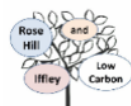




Clean Heat Streets

Working with local communities to accelerate the transition to heat pumps

Funded by  Department for Energy Security & Net Zero under Heat Pump Ready



The Clean Heat Streets team



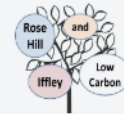
SAMSUNG



OXFORD
BROOKES
UNIVERSITY



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Funding Partner



Department for
Energy Security
& Net Zero



To find a place to live because

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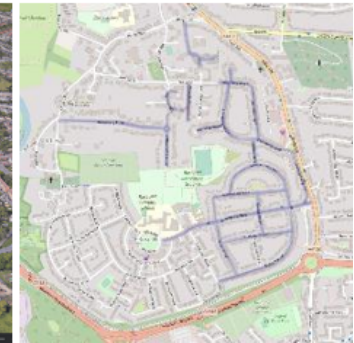
steps...

A Place Based Approach...know your neighbourhood

Rose Hill and Iffley

- Working with approx. 600 of the 3000 households in Rose Hill
- Mostly built in 20's and 30's – reasonable fabric standards
- Lots of social housing in southern area
- Long established stable community
- Low Carbon Living Group embedded (RHILC)
- Low income and highly ethnically diverse in southern part

Mix of attributes...barriers and opportunities



A tale of two substations



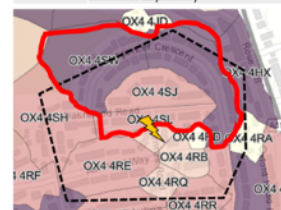
Courtland Road secondary substation: dwelling characteristics

Dominant statistics	OX4 4HZ	OX4 4JE	OX4 4JB	OX4 4JH
Dwelling type	Semi-detached	Semi-detached	Semi-detached	Semi-detached
Dwelling age	1920 – 1945	1920 – 1945	1920 – 1945	1920 – 1945
Tenure	Owner occupied	Owner occupied	Owner occupied	Owner occupied
Mean no. of bedrooms	3	3	3	3
Mean fuel poverty (%)	30	29	25	31
Mean household income (£)	44,000	47,000	52,000	49,000
% of dwellings 'Happy investors' (lvl 4) and 'Venturers' (lvl 3) of financial capability	99%	99%	99%	99%
% of dwellings 'deprived' (lvl 1) of financial capability	0	0	0	0



Fiennes Road secondary substation: dwelling characteristics

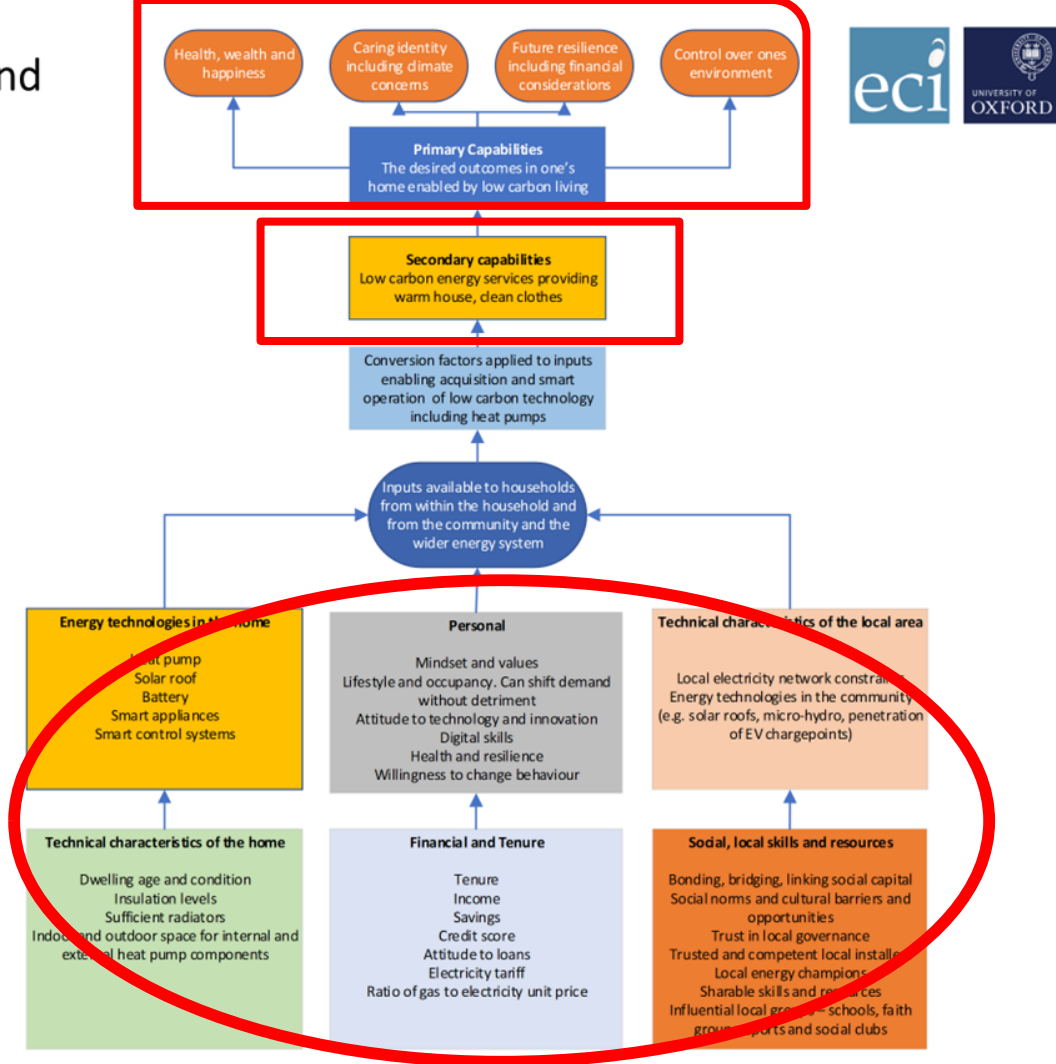
Dominant statistics	OX4 4SN	OX4 4SW	OX4 4SJ	OX4 4SL
Dwelling type	Semi-detached	Semi-detached	Terraced	Semi-detached
Dwelling age	1920 – 1945	1920 – 1945	1920 – 1945	1920 – 1945
Tenure	Public rent	Public rent	Public rent	Public rent
Mean no. of bedrooms	3	3	4	2
Mean fuel poverty (%)	61	56	68	55
Mean household income (£)	22,000	23,000	19,000	20,000
% of dwellings 'Happy investors' (lvl 4) and 'Venturers' (lvl 3) of financial capability	43%	44%	24%	48%
% of dwellings 'deprived' (lvl 1) of financial capability	0	0	4%	0



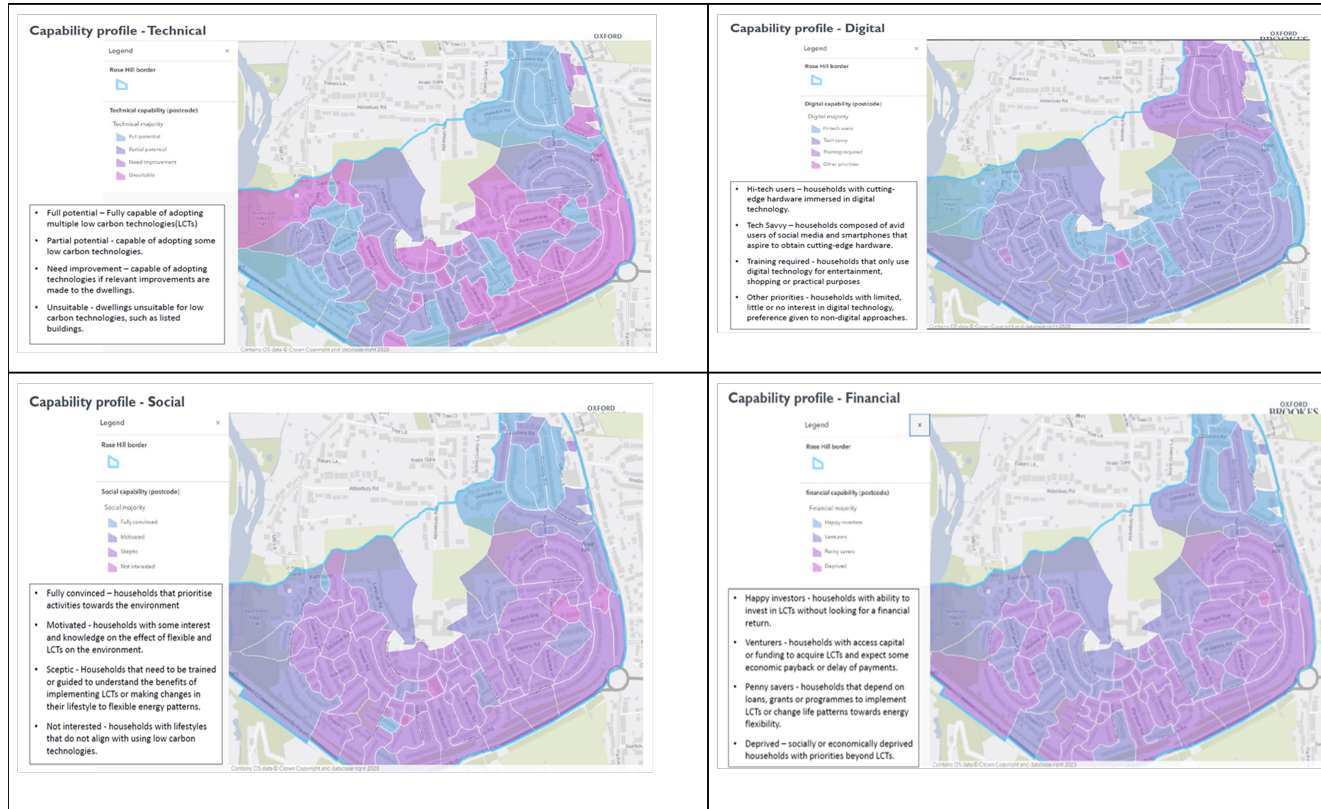
An adapted conceptual model built around the Capability Approach

(drawing on the work of Bobrova and Parrish, CSE and Day and Walker)

- Agent is the household
- Attributes in their various domains interact (both social and household level) via conversion factors
- Conversion factors are things like legal structures, policy, interventions, trigger points
- Arriving at the secondary “capability” or opportunity to use low carbon energy services - one of which is the opportunity, to adopt and use a heat pump well;
- A suite of secondary capabilities enable primary capabilities which are the basic components of human welfare - social respect, self esteem, living in a healthy home, enabling a caring identity etc
- This is how we make the connection between net zero practices and basic drivers of human behaviour...so this is how we build the value proposition...



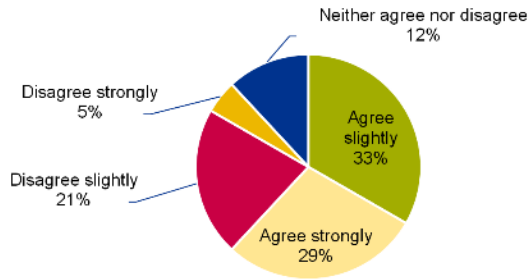
Understanding the community: Technical, Digital, Social, Financial factors at postcode level



Understanding the community: surveys, focus groups, interviews

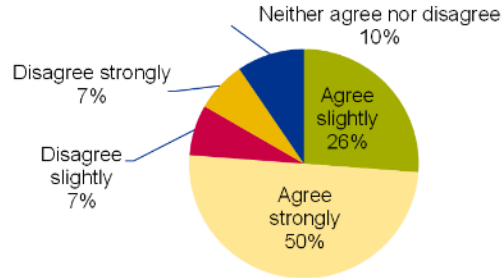
Over 60% respondents satisfied with existing gas boilers.

I am satisfied with my current heating system:



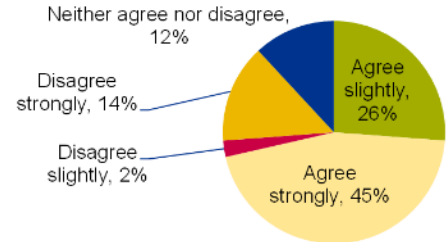
70% are concerned about the environmental impact of their heating system

I am concerned about heating cost



Over 75% of respondents concerned about the cost of heating their home.

Concern about the environment



Conclusion: the Heat pump will need to deliver same or better levels of heating service as existing gas boiler, and some additional benefit if they are to be taken up.

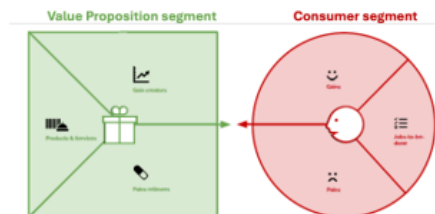
Building the value proposition.....

Gain creators:

- High-quality installation, plus range of post-install support to suit different needs will enable households to get the best out of their HP.
- A great deal on the heat pump which won't last for ever
- A unique tariff from British Gas is offered to all participants in the project, providing a 50% discount off the energy consumed by the heat pump.
- Using local trades and suppliers wherever possible
- Opportunity to come off gas completely

Gains:

- Maintaining or increasing comfort while decreasing running costs (and carbon emissions).
- Transitioning the home off-gas will lead to savings on the standing charge (£110 per year).
- Users are taught how to effectively operate the heat pump system to ensure cost-effectiveness.
- Opportunity to get ahead of the curve and take advantage of generous gvmt grants which will expire at some point in the future
- Opportunity to achieve "primary capabilities": a secure, comfortable home, social respect, being a good energy and environmental citizen.
- More resilient local community
- Health gains?



Jobs to be done

- Reduce heating running costs (and carbon emissions) while maintaining or improving comfort.
- Have a reliable heating system with assurance that support is available if something goes wrong.
- Linkage to primary capabilities – a secure, comfortable home, social respect, being a good energy citizen

Pain relievers

- Low cost heat pump installation
- If the heat pump is operated efficiently, coupled with a Time Of Use tariff, it will save on heating costs, or not be more expensive than a gas boiler
- Single most effective thing that can be done to reduce household emissions in the home
- We provide a trusted route to skilled installers and coordinate survey, design and installation through a single point of contact. Trusted partners. Using social learning (open days, heat pump champions) to create trust. Using local suppliers.
- Free survey removes a cost barrier and provides assurance of property suitability and information about expected running costs (and carbon savings), enabling an informed decision
- Heat pump will not require any more maintenance than a gas boiler, or differences in the warranty.
- Removes need for supplementary heating and tackles cold spots
- Slimline tanks, outdoor tank installations
- Radiator conversions – flexibility on installation. Minimum radiators.

Pains:

- High up front cost of a heat pump
- Running costs of heating system
- Environmental impact of heating system
- Difficult to select appropriate high-quality ASHP and find trusted local installers to conduct high-quality survey, system design and installation.
- Concerns and uncertainties about suitability of ASHP for property, comfort levels and running costs.
- Maintenance costs of a heating system
- Supplementary heating – can be expensive
- Cold spots and damp and mould issues
- No space
- Expensive radiator upgrades
- Possible health issues with gas heating and cooking?

The offer...

- Heat pumps are the **SINGLE** most effective thing you can do to dramatically reduce your carbon emissions.
- **MORE** hours of heat in your home for **LESS** cost.

But why get a heat pump through Clean Heat Streets?

- Heavily discounted heat pumps.
- Friendly, trusted installation process.
- Free support in your transition from a gas boiler to a heat pump.
- Free heat loss survey worth £400.
- 50% off your heating bills with our British Gas deal.



Engagement: trust and credibility is everything

- We have worked hard to build a trusted brand.
- The main engagement officer is employed by the City Council
- We work intensively with a local energy group, “Rose Hill and Iffley Low Carbon”.
- We run regular open days with houses that have installed heat pumps so that neighbours can experience heat pumps themselves.



Replace your boiler with a subsidised heat pump!

Heat Pump Open Day Sat, 28th Oct

- Experience a real, working heat pump in a home in your neighbourhood
- Meet a heat pump expert
- Ask the owners what it's like to have a heat pump

4 homes are open to visit	53 Spencer Cres, Rose Hill OX4 4XW	10am-12.30
	54 Spencer Cres, Rose Hill OX4 4SN	10am-12.30
	13 Annesley Road, Rose Hill OX4 4JH	10am-12.30
	62 Asquith Rd, Rose Hill OX4 4RJ	1.30pm-4pm

Everyone is welcome Book a 30 min slot at any of the homes by emailing info@cleanheatstreets.com or Just DROP IN

Roads eligible for the Clean Heat Streets funding	
ASHBURST WAY ASQUITH ROAD DASHWOOD ROAD, FENNES ROAD	JERSEY ROAD SPENCER CRESCENT ST. MARTINS ROAD

Estimated time of heat pump installation - from Jan 2024

Roads eligible for the Clean Heat Streets funding	
ABBEBURY AVENUE ABBEBURY ROAD ANNESLEY ROAD BEARS HEDGE COURTLAND ROAD ELLESMERE ROAD EGERTON ROAD	HUNSDON ROAD ROWNEY PLACE SHEEPWAY COURT WEST VIEW ANNE GREEN WOOD CLOSE

Estimated time of heat pump installation - from Oct 2023

Benefits of taking part in the project

Heat pump installation at a heavily discounted price
 Clean Heat Streets is offering eligible residents incredible deals on Samsung heat pump installations, starting at just £108. This is because government funding from the Boiler Upgrade Scheme has recently increased from £5,000 to £7,500. With this increase, the average installation cost through Clean Heat Streets is £2,186, which includes additional work to enlarge radiators where necessary. Individual costs will vary, based on radiator size, the condition of pipes and the size of the house.

- 7-year warranty
- Free suitability survey and EPC rating worth £400
- Get friendly support from Lucy, your dedicated Oxford City Council officer, for a seamless heat pump journey from design to installation and optimization.
- Become part of the solution and help Oxford to become a Net Zero carbon city by 2040.
- Helping Rose Hill and Iffley build an even stronger community by becoming more resilient and a national trail blazer for renewable energy

To register your interest, visit our website: www.cleanheatstreets.com

Engagement: workshops and outreach to community groups, local suppliers and installers



- Sensitivity to local cultural practices – e.g. flat bread making – needs a gas flame...or does it?
- Using local carpenters for building sheds and making good
- Using local printers to produce the flyers
- Local gas boiler installers trained in heat pump installation

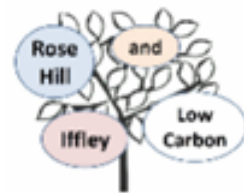
Engagement: personalised support for residents

- Minimum of 3 visits across the journey.
- Liaise with installers and residents to help maximise resident input – radiator negotiations!
- Offer advice on behaviour changes to get the best out of the heat pump.
- Support with questions/concerns.
- Peer to peer support – residents with heat pumps group



Heat pumps and equity

A tale of a hundred residents



Differences of:

- income and house size
- house ownership (owned / rented)
- types of insulation, radiator, pipework
- working patterns
- first language and cultural background
- age
- levels of education
- experience of heat pumps

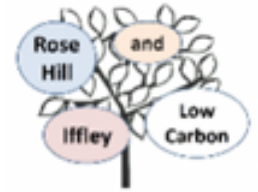


*One-year anniversary of Clean Heat Streets,
15 June 2024, Rose Hill Community Centre*



What questions are they asking?
What might be the answers?

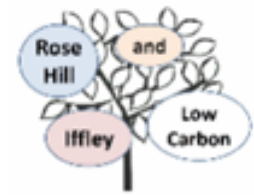
Questions of cost: Make them affordable!



Obstacles	Possible solutions
Expense of installation	(Govt. policy) Subsidise heat pumps so they are cheaper than gas boilers. (City Council) Provide free installation for council tenants.
Expense of maintenance	(Installer) Provide affordable maintenance contracts.
Expense of electricity	(Govt. policy) Subsidise the cost of electricity relative to gas. (CHS) Promote providers with flexible tariffs. Explain how to use them.



Fear of change: Show and tell

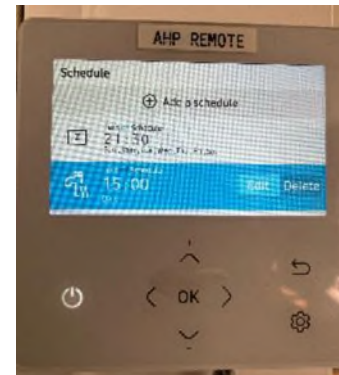
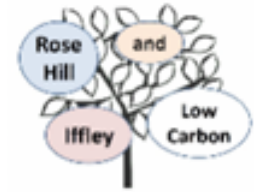
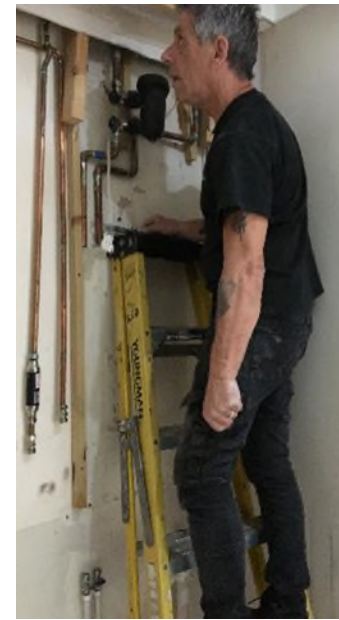


Questions	Possible solutions
What IS a heat pump?!	(CHS and heat pump champions) Hold frequent information events and open days to show working HPs. (RHILC) Run stalls at community events. Include children.
Loss of space	(CHS) Provide options (loft / shed / new cupboards)
Fear of noise	(CHS) Demonstrate at open days
Horror stories	(CHS) Explain what is and isn't normal. Act quickly on complaints.

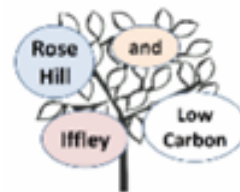


Complicated technology

Problems	Possible solutions
Householders spooked by all the pipes!	(CHS & City Council officer) Provide advice before, during and after installation.
Inexperienced contractors	(Govt. policy) Run well-paid training programmes.
Contractors travel a long way	(Installer) Train up local plumbers and electricians.
Complicated control panel	(Manufacturers) Simplify user interface.
Takes too long to replace a boiler	(Manufacturers) Speed up installation process.

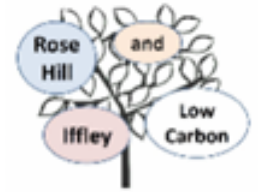


House use and house type: Be honest!



Differences	Possible solutions
Room use	(CHS) Be honest about suitable homes, e.g. explain they're best for fully occupied homes.
Change of behaviour	(CHS) Explain importance of constant temperature in the home.
Types of insulation	(Householder) The more insulation, the less you have to change
Types of radiator	(CHS) Enlarge or add new radiators
Types of pipework	(CHS) Replace microbore pipes. Be ready to say heat pumps aren't suitable if this is unaffordable.

Equity isn't just about money!



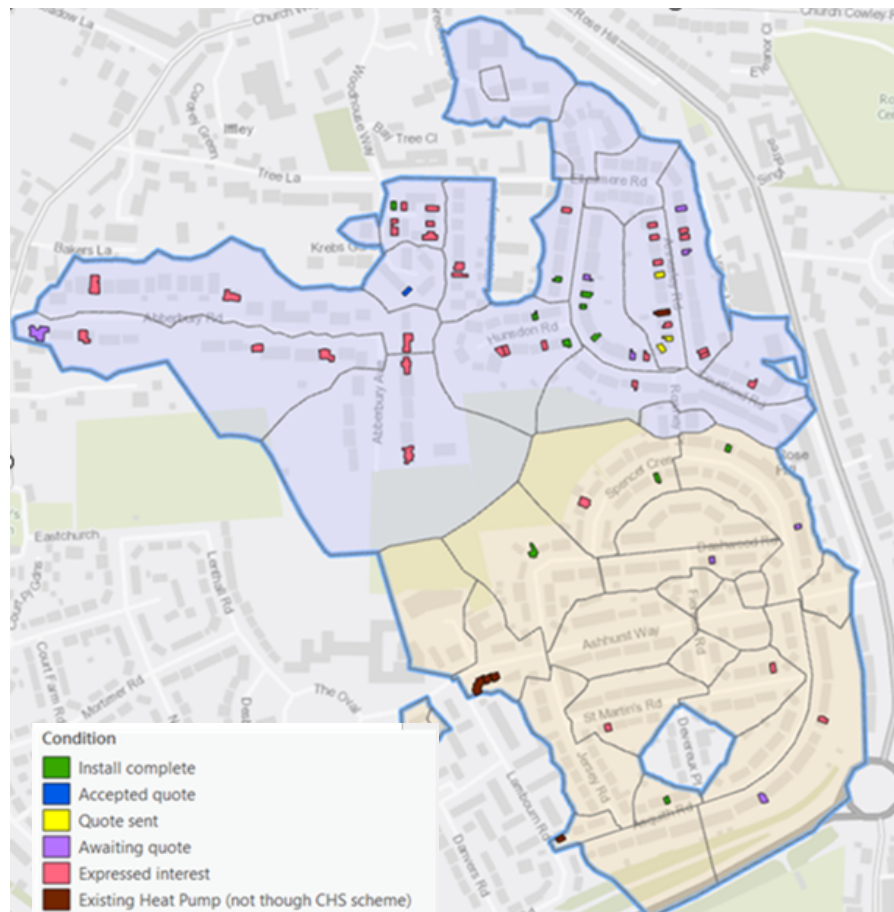
Differences	Possible solutions
Culture	(CHS) Make it easy for people to get off gas when they move to a HP.
First language	(CHS, Manufacturer) Provide instructions in common languages.
Age	(CHS) Train residents to use the technology again and again - and again!
Education	(CHS, Manufacturer) Simplify language in manuals and provide clear visuals for those with reading difficulties.
Experience	(Householders) Make a self-help group of HP owners after the project finishes.



Conclusions – 1

So, how are we doing?

- Place based approaches really work..
- 100 plus expressions of interest with a 20% conversion rate
- 20 installs complete
- Around 20 more in the pipeline..
- 6 Heat Pump champions
- But huge disparity between high income and low income area



Conclusions and next steps - 2



Central govt policy

- Continue to subsidise installation. Subsidise maintenance contracts too?
- Heat pumps as a public health measure for homes in fuel poverty? HP plus fabric measures....
- Reduce the spark gap –NESTA recommend a ratio of 2.5 electricity to gas
- Ramp up training of heat pump engineers.

Manufacturers

- Smart control and monitoring should come as standard
- Simplify control panels.
- Simplify and translate language in manuals.

Energy companies and DNOs

- Offer flexible, comprehensible tariffs.
- Increase capacity on the network.



Conclusions and next steps - 3



Planners and local authorities

- Need to be at the heart of a place based approach
- Clarify and simplify planning rules for HPs

Installers

- Speed up process of installation.
- Give affordable maintenance terms.
- Train apprentices.

Clean Heat Streets 2 and beyond

- Be honest. No hard sell. Give time for word to spread.
- Start hyper local with an active group.
- Run regular info days and open homes and piggy-back on community events.
- Give support before, during and after, especially for those who might struggle.
- Think out of the box for engagement purposes – theatre!!

