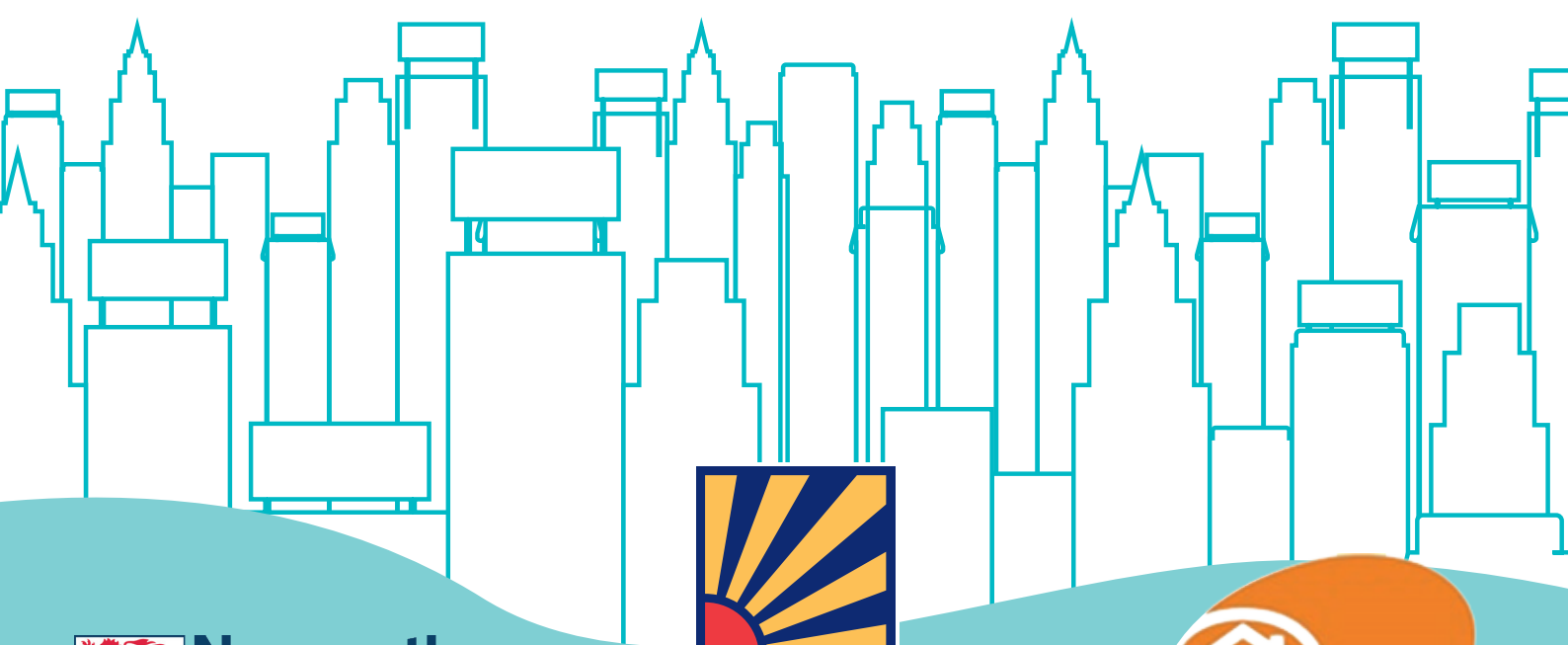




# Warm Homes Fund Programme Evaluation

**Abridged interim report**

May 2020



*Action for Warm Homes*



## Foreword by Dr Gareth Powells

The Evaluation Consortium has been working together on evaluating the impacts of the Warm Homes Fund (WHF) over the winter of 2019-2020 and has heard first-hand of the very significant and positive effects that the funding has had on the lives of many families and households. This includes considerable improvements to quality of life in the home, with some households able to use their whole home rather than a single room for the first time in years. For others there have been marked improvements in their health as a result of having a warmer home with less dampness, which was often reported to have had positive knock-on effects for their mental health and wellbeing. We have also heard from households who, as a result of a WHF intervention, have been able to afford their heating much more comfortably and without making painful trade-offs between energy and food budgeting, or doing so less frequently. We have also been in touch with project delivery teams and heard from a majority that feel that the scheme is effectively targeting the most vulnerable households, that it has sparked new partnership working and that delivery has been effective.

Alongside these positive findings, we have also listened to householders and project delivery teams about what could be improved and how the WHF Team could learn from some of the challenges identified, to enhance the scheme in the future. These are relayed in this report so that the WHF Team can learn-as-we-go about what the Evaluation Consortium is finding.

This report provides a detailed and balanced account of the research and findings to date, but it must be accompanied by the caveat that it is, of course, an interim report of our early findings. We are in the middle of our first of three waves of evaluation fieldwork, the second and third of which will take place in 2021 and 2022 respectively. The findings presented here must therefore be taken as provisional and will be developed further and made more robust as the evaluation proceeds in the coming months and years. Nevertheless, this report constitutes a comprehensive summary of the evaluation work undertaken thus far and we look forward to your engagement with it.



Dr Gareth Powells  
School of Geography, Politics and Sociology and The Centre for Energy, Newcastle University, UK.  
April 2020

## Authors

Matthew Scott, National Energy Action; Helen Stockton, National Energy Action;  
Gareth Powells, Newcastle University; Jamie-Leigh Rosenburgh, National Energy Action;  
Kevin Jobson, Energy Audit Company

# 1. Introduction

This report presents a summary of the interim findings of the programme-wide evaluation of the Warm Homes Fund (WHF), set up by National Grid and Community Interest Company, Affordable Warmth Solutions, who administer the fund on behalf of National Grid. The WHF is one of the largest fuel poverty programmes across Great Britain, representing private sector investment of £150m. The fund is split into three broad categories: Category 1 is focused on urban homes and communities, primarily through first time gas central heating systems; Category 2 is focused on rural homes and communities, primarily through 'non-gas' solutions such as LPG or heat pumps; and Category 3 aims to provide energy efficiency and/or health related advice and solutions for householders.

The evaluation is being delivered over a period of 44 months by Newcastle University, National Energy Action (NEA), and Energy Audit Company (EAC), who together comprise the WHF Programme Evaluation Consortium. It involves three waves of consecutive fieldwork, aimed at capturing insights from different cohorts of WHF project delivery organisations and beneficiary households. The principle objectives of the evaluation are to:

- Determine the social and economic benefits from the WHF investment (return on investment)
- Develop a framework of appropriate input, output and impact measures which will provide a basis on which delivery performance can be assessed
- Determine the extent to which the support has reached the households most in need and any regional differences, specifically between England, Scotland and Wales
- Produce a blueprint model that could be used to inform policy makers on options for delivering future large-scale energy efficiency programmes.

This summary report presents early findings from the first wave of fieldwork, conducted between November 2019 and April 2020. Specifically, these findings are based upon:

■ **Nine semi-structured interviews with beneficiary households.** 805 questionnaires were distributed to WHF beneficiary households through project partners. To date, 90 questionnaires have been returned. Respondents were asked to indicate their interest in taking part in an interview on the questionnaire, and nine interviewees were subsequently selected for interview. Of these, eight households received a Category 1 intervention (first time gas central heating) and one household received a Category 2 intervention (air source heat pump). From these interviews, three audio-visual case studies were produced with the aim of telling the real life stories of people who have benefitted from the WHF. A link to these case studies is provided in Section 2, as well as being quoted throughout the analysis. Quantitative analysis of household questionnaire data will be provided in a later report.

■ **An online survey of WHF project delivery organisations.** This survey examined current service provision, delivery and referral processes, partnerships and networks, key challenges and successes, and progress against intended goals. While 35 project leads provided a response to the online survey of WHF projects, a total of 37 responses were received. This is because two projects provided a separate response for delivery made under each Category of funding they obtained.

■ **Semi-structured interviews with ten delivery personnel across five different WHF projects, recruited following their completion of the surveys.** These interviews explored project set-up and experiences of partnership working, the development of referral systems, differences in delivery according to Category, householder journeys and withdrawals, and perceived key outcomes.

The findings that follow from these methods are provisional, and will be developed further and made more robust as the evaluation proceeds in the coming months and years. In addition, some of the research and analysis upon which the report is based was conducted during the presently ongoing Covid-19 crisis, and some data that might otherwise have been included could not be analysed and will be provided in a later report. These caveats aside, the report constitutes a comprehensive summary of the evaluation work undertaken to date as well as the key findings emerging from the first wave of fieldwork.

## 2. “Warmer, Healthier and Happier”: Householder experiences

The Warm Homes Fund (WHF) was designed to support fuel poor and vulnerable households, helping them to affordably access the energy services needed for health and wellbeing. This section of the report introduces and summarises the main findings from householder interviews, identifying successes and exploring further areas for improvement. It is structured according to three themes: 1) the impact of WHF interventions on energy affordability and subjective fuel poverty; 2) the impact of WHF interventions on physical and mental health and wellbeing; and 3) householders’ overall dis/satisfaction with their interventions and with the scheme as a whole.

### Impact on energy affordability and subjective fuel poverty

Following their interventions, most interviewees were able to heat their whole home to a thermally comfortable standard. To give two specific examples, one household interviewed estimated their bills had reduced by 25% in the twelve months immediately following their central heating installation, and a second household had a monthly direct debit payment of approximately £100 reduced to a payment of £59 following their central heating installation.

The importance of these savings is amplified considering that, prior to receiving their new heating system, most interviewees were unable to keep their whole homes warm for a reasonable cost. Interviewees discussed how the high costs of running storage heaters and similar energy inefficient sources of warmth prevented them from being able to keep their whole homes warm. As a result, many interviewees reported previously engaging in alternative, stressful, and demeaning household practices to try and stay warm, including heating only one or two key rooms and confining themselves to these rooms, wearing additional layers of clothing, using blankets and duvets, and moving portable plug-in heaters around their homes when they anticipated needing to use different rooms. For these households, WHF projects have therefore been able to successfully alleviate acute experiences of subjective fuel poverty.

“

*With this [heating] coming in, it means we’ve got a little bit more money to buy other things if we need them. So it has made a difference to our pockets [...] we can now say, ‘Oh, we’ll get that for a pudding. That’s a treat.’ You know, so we’ve got that extra bit of money to do things like that. So it’s a win-win situation for us.”*

Howard

Although most interviewees who discussed the impact of their intervention on their energy bills reported substantial savings, some interviewees had not yet received their first winter bill following the intervention, and one interviewee who received a Category 2 intervention did not make the expected savings and therefore remained unable to access affordable warmth. This highlights the need to ensure households are able to access appropriate and ongoing support prior to and following the installation of a new heating system.

## Impact on physical and mental health and wellbeing

Interviewees who disclosed specific health conditions experienced substantial improvements following the installation of their heating systems. Interviewees reported particularly positive impacts on respiratory conditions such as COPD, mental wellbeing, and the health of young children living in their households.

Furthermore, some interviewees emphasised the impact of their installations on making their whole homes more accessible, homely, and amenable spaces within which to live. Interviewees also highlighted how this enabled their homes to be more suitable as family and social spaces.

“

*I've noticed since we've had the central heating in, I've cut down on my inhalers because I'm breathing the same temperature air all the way through the bungalow. And I'm a little bit more comfortable with my rheumatoid arthritis. Because, if you get cold, you stiffen up a little bit, but if you're warm, you relax more.*

Paula

## Overall scheme satisfaction and emerging areas to explore

Overall, interviewees were highly satisfied, and commented positively on the scheme, their installations, and the various ways the installations had helped them. In addition, while the overall sample of interviewees is small, some householders did highlight aspects of their installations that they felt could have been improved. Some felt they did not receive suitable advice and instruction on how to operate their new heating systems. Ensuring a minimum standard of advice is critical because it enables householder confidence with their new system and may empower householders to explore other ways to save energy and money in their homes. Further, while most interviewees recognised the need for installers to disturb walls, floorboards, and other parts of their homes to install their heating systems, some were disappointed that these disturbances were not fully rectified after the installation was complete.

“

*The whole house is a lot warmer, happier, and healthier, due to having the central heating fitted. Now I don't know what we'd do without it.*

Carol

The Evaluation Team will seek to ascertain the prevalence of these issues across a broader sample of households as fieldwork progresses in the coming months and years. Where the householder can be identified and appropriate consent obtained, the Evaluation Team also understands that AWS are intending to follow up these concerns with delivery organisations and householders to address any areas of dissatisfaction. Nonetheless, these findings present an early opportunity for reflection, as summarised below, and should not detract from the largely positive and substantial impacts that the Warm Homes Fund has evidently had on the lives of interviewed households.

**Early areas to explore:**

1. Are there ways in which selection criteria and wider funding mechanisms could be further adapted to ensure that higher and more consistent standards of advice, instruction, and ongoing support are provided to beneficiary households by projects? While it is clear that WHF selection criteria does include an appropriate consideration of the capability of the applicant to provide ongoing support, initial householder interviews suggest that the consistency of this support provided by different projects is worthy of further reflection.
2. Where the projects do not have scope or capacity to provide ongoing or more in-depth support themselves, could the households in receipt of an intervention be profiled in such a way as to support changing their meter and/or tariff following interventions? This is especially important to consider where air source heat pumps replace dual tariff electrical systems such as storage heaters.
3. The evaluation acknowledges that the blending of WHF and ECO funding is essential to the delivery of projects, and that the quality assurance standards required by government are therefore employed. Nevertheless, are there further quality assurance mechanisms relevant to interventions funded by the WHF that would encourage higher standards of workmanship and the quality of liaison with households during and after installation?

**Household beneficiary case studies**

Three audio-visual case studies have been created to demonstrate the impact of the Warm Homes Fund on specific households, and permission was granted to the research team by all three interviewees to use their real voices in producing them. The names of each interviewee have been pseudonymised to protect their identities, following NEA and Newcastle University's research ethics policies. The case studies are linked to individually below, and each tells the real life story of a household that has benefitted from the Warm Homes Fund in a way that captures their own experiences as authentically as possible.

Paula's Story - <https://spark.adobe.com/video/ljgP53rwNTh7v>

Carol's Story - <https://spark.adobe.com/video/JNouEL7XuSPNP>

Howard's Story - <https://spark.adobe.com/video/XxTpsEwZLFn8K>

**3. Early project delivery insights**

This section of the report summarises findings from the delivery partner survey (n=37) and interviews with ten delivery personnel. It explores how WHF projects have been delivered; the importance of partnerships and networks in project design and delivery; the importance of dataset analysis, referral pathways, and advertising for recruiting eligible households; the key successes, outcomes and challenges of different projects; the perceived connection between Warm Homes Fund projects and decarbonisation agendas; as well as Category-specific insights.

**Partnership working, referral networks, and identifying eligible households**

Most projects surveyed (72.9%) worked with other partner organisations to identify beneficiary households for their WHF interventions. Of these, 43.2% responded that they worked with existing partners and 29.7% responded that they worked with new partners to deliver their projects. As well as neighbouring local authorities, there was significant involvement of wider public sector organisations, including social care and social services; health bodies including the NHS, public health and health boards; fire and rescue; and the Department for Work and Pensions.

In the interviews, delivery partners highlighted the importance of pre-existing institutional and interpersonal relationships with local organisations to the development and delivery of their projects. They believed that working with trusted and longstanding partners, including installers and contractors, added significant economic and social value to their projects, as well as ensuring that mechanisms of communication and project management were already well established prior to the commencement of delivery. Delivery partners also constructed and made use of different referral pathways to recruit eligible households into their projects. Healthcare providers such as GP surgeries were important to several projects, while, more broadly, partners made use of connections with councils, community organisations, installers, and other charities/third sector organisations.

While some projects surveyed were successful in engaging health sector bodies, others noted that they had not yet been able to work with potential partners such as GP surgeries, Health and Wellbeing Boards, Clinical Commissioning Groups (CCG), mental health teams and telecare services, but would have liked to engage them. For some projects, the difficulty was gaining traction with such agencies at a strategic level in order to drive referrals beyond a handful of engaged individuals. For others, difficulties in securing engagement related to time and resource pressures, or changes to personnel.

### Eligibility criteria, targeting, and data analysis processes

In line with WHF programme criteria, the most common groups that survey respondent projects were targeting to identify clients were households with poor energy efficiency ratings (73%); households in fuel poverty (73%); and households in receipt of means-tested benefits or on low incomes (70.3%). A small majority were also targeting specific housing sectors, the most common being the social rented sector, which was targeted by 62.2% of projects surveyed, and owner-occupiers, targeted by 51.4% of projects surveyed. The ways in which targeting strategies were implemented can be intrinsically linked to the range of eligibility criteria that were applied across projects; the three most commonly targeted groups reflect the three most common eligibility criteria used: fuel poverty status (65.7%); EPC rating (65.7%); and income-based eligibility (in this case a threshold) (62.9%).

In the delivery partner interviews, project personnel described making use of a range of tools and techniques to target and recruit eligible households. Partners primarily based their initial targeting

“

*We've worked with [the installer] since [their] inception [...] We've worked with them for many years, and they've got a really good resource, there, of great knowledge of the city. They had installers already in place, and a good working relationship with them. So it was an ideal partnership.”*

WHF Project Lead

“

*I came up with a whole load of statistics based on off gas mapping and what have you [...] and then you think, right, we'll go and canvas all the villages and the communities, and what have you, and we're bound to find people; [...] And then you realise that the data is a bit out of date compared to what's going on, on the ground.”*

WHF Project Lead



strategy on an analysis of different kinds of data that was available to them, and direct recruitment was undertaken through a combination of leafleting, canvassing, and advertising in targeted communities. Firstly, delivery partners would select the most appropriate datasets (e.g. Indices of Multiple Deprivation datasets) at their disposal to help them target their efforts to specific geographical areas, before using techniques such as leaflet drops, door knocking, attending community events, and encouraging ‘word of mouth’ referrals among communities and neighbourhoods. In doing so, partners highlighted a number of challenges they had faced around targeting, specifically regarding the differences between the picture their data provided and the picture ‘on the ground’, and more broadly in converting large-scale analyses of fuel poverty and other statistics to the recruitment of households at scale.

## Project performance, key outcomes and challenges

Overall, projects surveyed perceived their own performance against delivery targets very positively. Over 90% of projects surveyed said that they thought their eligibility criteria was working extremely or fairly well – with more than a third (42.4%) reporting it to be working extremely well. Almost 90% (87.9%) said that

they rated their overall delivery approach as working extremely or fairly well; while three quarters (75.8%) said that they thought their targeting methods were performing extremely or fairly well. Accordingly, all delivery partners interviewed believed that the key successes of their projects had been providing help to vulnerable and fuel poor households. Delivery partners were satisfied with their relationships with AWS and commented on specific

“

*I think, individually, it was really successful. Some of the people that we helped were in quite vulnerable positions. It's been life-changing for them.”*

WHF Project Lead

aspects of scheme management and oversight that they felt were particularly excellent, such as AWS’s responsiveness to queries and their willingness to assist with data validation and processing. In addition, half of project survey respondents indicated there had been some change to their organisational practices, policies, or ways of working as a result of their WHF participation. This included the instigation of other projects through identifying previously unknown problem areas (e.g. mould), expanded understandings of impact through enhanced analysis of the data required for WHF reporting, and strategic changes to maintenance programmes, fuel poverty strategies, and the alignment of complementary programmes elsewhere within the organisation.

The main delivery challenges identified by projects surveyed to date included managing installation delays (36.1%); working with contractors or supply chain (27.8%); project administration (25%); and identifying suitable households (25%). In delivery partner interviews, partners expanded on the challenges they had experienced in the governance and delivery of their projects, which broadly fell into three categories; challenges establishing effective and consistent lines of communication between project partners; challenges in organising and funding timely gas connections for Category 1 interventions; and challenges with energy inefficient properties blunting the impact of interventions on householders.

## Funding categories and category specific insights

Although projects perceived their own performance against delivery targets positively, interviews with delivery partners revealed that there were some additional perceptions on project performance based on funding category. The vast majority (80%) of surveyed projects were in receipt of Category 1 funding, while around two fifths (42.9%) were in receipt of Category 3 funding. Just over a quarter (28.6%) were in receipt of Category 2 funding. A smaller percentage of surveyed projects (14.3%) were in receipt of Category 3 Park

“

*Without the additional support we're able to add, through Cat3, [some households] just wouldn't have been able to have the install, they wouldn't be able to deal with it, either because of health issues or just worry over the upheaval.”*

Cat1 and Cat2 Project Lead

Homes funding, although it should be noted this Category of funding was only instigated in R4 of the application process and thus comprises a fewer number of total WHF projects than other Categories.

In the interviews, delivery partners with funding for Category 1 and/or 2 measures believed the positive impact of their installations on householders was significantly enhanced by the advice and aftercare that was enabled by also being in receipt of Category 3 funding. More broadly, these delivery partners highlighted that, on their own, interventions involving capital measures are often insufficient for

providing holistic, whole-house benefits for residents. Other projects may of course have alternative funding for providing advice and aftercare, and may therefore feel that Category 3 funding is unnecessary. However, in cases where such funding is limited, the holistic benefits to households enabled by blending Category 1/2 funding with Category 3 funding could be substantial. In addition to this finding, there were differences between projects in their experiences of organising and delivering Category 2 interventions. Some projects had found the process of 'selling' heat pumps to households difficult, while others admitted being surprised at the level of take-up among eligible households. The differences and discrepancies in delivery based on Category is a theme that will be explored further as the evaluation continues.

## Householder withdrawals

Just over half of projects surveyed reported incidences of households withdrawing from their project and the support it provided at multiple stages of the customer journey. The most common of these was at the point of assessment for measures/advice (45.5%) while around a fifth (21.2%) reported withdrawals just before interventions were made or at application (18.2%). Insights from comment boxes throughout the survey and from delivery partner interviews indicate that withdrawals can occur due to several reasons, including the perceived 'hassle factor' and fear of major infrastructural change in the home; complex personal circumstances of the household (e.g. mental health issues or severe ill health); a landlord refusing permission for works to be carried out; a reluctance to accept and adopt gas as a heating solution (particularly among elderly households); and, in some cases, the requirement for a client contribution towards the cost of a gas connection (where the voucher value did not cover the total amount required).

## Decarbonisation and fuel poverty

Finally, the perceived tensions between the different priorities of decarbonisation, alleviating climate crisis, and helping fuel poor and vulnerable households were commented upon by different delivery partners. The Warm Homes Fund was established to address the immediate issues detrimentally affecting fuel poor households in the short-term, while simultaneously acknowledging the broader long-term ambitions of the UK government around decarbonisation. This conviction was

“

*I think we're pretty much worked up on properties that need interventions in terms of installing gas central heating. [...] Looking forward to the future, I know the Warm Homes Fund is obviously a fuel poverty focused kind of project, but our strategy is more towards decarbonisation. So I can't see us retrofitting any more gas central heating systems in properties that don't have central heating in ever again, I don't think.”*

WHF Project Lead

shared by some delivery partners, who firmly articulated that gas central heating remains the optimal heating solution for lifting households out of fuel poverty at the present moment.

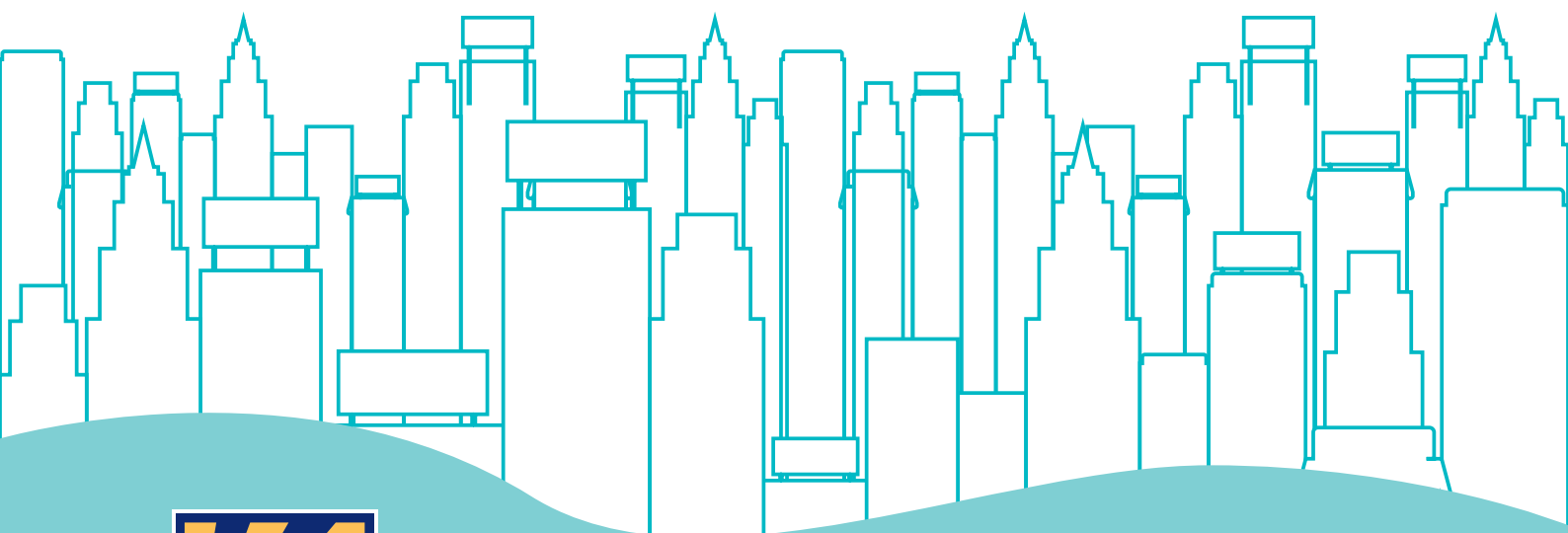
However, partners also explained that the installation of first time central heating was beginning to conflict with other emerging organisational priorities and strategies regarding the decarbonisation of domestic heat. Accordingly, this prompted partners to reflect on how future funding schemes, including the Warm Homes Fund, could be adapted in the medium- to long-term to serve the twin priorities of decarbonisation and eliminating fuel poverty. Some partners suggested that relaxing the predominantly rural focus of Category 2 measures could allow more installations of heat pumps in urban areas and communities, while others wondered if funding for district heating networks could be promoted or centred within future fuel poverty schemes. Going forwards, partners were aware of the necessity of ensuring that such low-carbon heating solutions are not solely deployed in the service of decarbonisation, but also in the service of the poorest and most vulnerable households. This was perceived as a challenge but also as a strategic opportunity, and the Evaluation Team's continuation of delivery partner research in 2021 and 2022 will provide an opening to assess how the challenges posed by decarbonisation could be transformed into opportunities for future fuel poverty alleviation funds.

## 4. Interim conclusions and next steps

This interim report has documented the largely positive and substantial impacts that the Warm Homes Fund has had on the lives of many households. Early findings from householder interviews demonstrate the impact of funded projects on energy affordability, subjective fuel poverty, and the physical and mental health of beneficiary households, while simultaneously pointing towards areas that may require further research and analysis, such as the provision of minimum standards of advice, workmanship, and client liaison. The report has also explored the views of project delivery teams, analysing how Warm Homes Fund projects are being delivered and highlighting the range of successes, challenges, and outcomes that projects are experiencing.

Going forwards, the Evaluation Consortium are currently completing the first wave of fieldwork, speaking to further beneficiary households and delivery projects to deepen and broaden the findings presented in this interim report. Later in 2020, the consortium will undertake the first analyses of the impact of the Warm

Homes Fund on fuel poverty and energy efficiency, which will be based on energy modelling using secondary data from WHF delivery projects. A further two waves of fieldwork will follow in January–March 2021 and January–March 2022, with the final evaluation report due for delivery in December 2022. As fieldwork progresses, the situation with Covid-19 will also be continually reviewed collaboratively by the Evaluation Team and the Warm Homes Fund to identify and mitigate possible challenges that it poses to the evaluation.



*Action for Warm Homes*

© NEA 2020

**NATIONAL ENERGY ACTION**  
The national fuel poverty and energy efficiency charity

West One, Forth Banks, Newcastle upon Tyne, NE1 3PA  
NEA is an independent charity, Registration No. 290511.

Company limited by guarantee. Registered in England and Wales No. 1853927