

Creating Value and Warming Homes

A Social Return on Investment evaluation of grant-funded fuel poverty initiatives

May 2026

Social Research

Service Design & Innovation

Strategy & Collaboration

Evaluation Support

Social Impact Measurement



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1: Introduction

About the report

Fuel poverty remains one of the most significant and persistent social challenges facing the UK. An estimated one in three households in Scotland is currently living in fuel poverty, with around half of those in extreme fuel poverty – meaning they must spend more than 20% of their adjusted net income to heat their homes to an adequate standard. Across the UK as a whole, millions of households face similar pressures, with rates highest among older people, disabled people, those with long-term health conditions, and low-income families.

The consequences of fuel poverty extend well beyond household finances. There is a well-established body of evidence linking cold, damp, and energy-inefficient homes to poorer physical and mental health outcomes, increased demand on health services, reduced educational attainment for children, and social isolation.

Grant-funded domestic retrofit programmes are a central part of the policy response. By improving the fabric and heating systems of the homes of those least able to fund improvements themselves, these programmes aim to address fuel poverty at its source – reducing energy demand, lowering fuel costs, and improving the living conditions of vulnerable households.

Warmworks is a joint venture partnership between Energy Saving Trust, Changeworks and Sureserve. It was formed in 2015 to deliver Warmer Homes Scotland (WHS), the Scottish Government's national fuel poverty scheme, providing retrofit and domestic energy efficiency upgrades for the homes of vulnerable people in Scotland. Warmworks has expanded its work significantly since then and, in addition to WHS, now manages a number of retrofit and domestic energy efficiency upgrade programmes across Scotland and England¹. Those eligible for support through the programmes that Warmworks delivers include disabled people and those living with long-term health conditions, older people, low-income households, unpaid carers, and those in receipt of certain benefits.

¹ For the purposes of this report, all schemes and projects are referred to as 'programmes'.

All of these grant-funded programmes aim to improve the fabric and/or energy efficiency of their customers' homes, but also to improve their customers' knowledge and understanding of how to heat their homes effectively.

Therefore, after works have been completed and signed off, customers should be able to heat their homes better for less money and in a way that is better for the environment. These programmes also provide further advice and signposting if other needs are identified during their work with the customer.

Retrofit and domestic energy efficiency upgrades provided by Warmworks include a number of different elements:

-
- **Fabric** measures including:
 - Wall insulation, roof insulation, floor insulation, draught proofing, replacing/upgrading windows and doors, glazing
-
- **Renewable** measures including:
 - Battery storage, solar photovoltaic (PV) and solar thermal systems
-
- **Direct Emissions Heating** measures including:
 - Biomass boilers, gas boilers, and district heating
-
- **Zero Direct Emissions Heating** measures including:
 - Air source heat pumps, storage heaters, hot water systems, thermal store systems and HeatSage (heating control system)
-

During the financial years 2023/24 and 2024/25, Warmworks delivered the following programmes:

-
- **Warmer Homes Scotland (Phases 1 and 2, Scotland-wide)** – The Scottish Government's national fuel poverty scheme
-
- **Energy Efficient Scotland: Area-Based Schemes (Scotland)**
 - Orkney Islands Council
 - Comhairle nan Eilean Siar
-
- **Renewable Heat Projects with a range of housing associations: (Scotland)**
 - **Wheatley Homes South** (formerly Dumfries and Galloway Housing
-

Partnership – Dumfries and Galloway

- **Waverley Housing** – Scottish Borders
- **Berwickshire Housing Association** – Scottish Borders
- **Cunninghame Housing Association** (2023/24 only) – North Ayrshire
- **West of Scotland Housing Association** (2024/25 only) – West of Scotland
- **Langstane Housing Association** (2024/25 only) – Moray

▪ **Home Upgrade Grant (Phase 2) (England)**

- Newcastle City Council
 - Cambridgeshire and Peterborough Combined Authority
-

Warmworks is committed to tackling fuel poverty and increasing the energy efficiency of the homes and communities in which they work. They are seeking to play a key role in the long-term drive to reduce carbon emissions and increase the availability of affordable, sustainable energy for all.

To better understand the difference that this work is making to fuel poor households and other stakeholders in the process, and to contribute towards evidence on the wider benefits of capital investment in energy efficiency schemes/programmes, Social Value Lab (SVL) were commissioned to conduct a Social Return on Investment (SROI) evaluation of the programmes managed by Warmworks.

Social Return on Investment (SROI)

Every day, our actions and activities create and destroy value; they change the world around us. Although the value we create goes far beyond what can be captured in financial terms, this is, for the most part, the only type of value that is measured and accounted for. SROI is a framework for measuring and accounting for the full social, economic and environmental impact of activities, including those that have no direct monetary value.

The key principle of SROI is that it measures change in a way that is relevant to the people who are experiencing it. The main difference with other methods of social impact measurement is that it puts a monetary value on these impacts and calculates a ratio of return for those organisations that are contributing to creating the change.

Social Value UK has developed and published the 'Guide to Social Return on Investment'² that is now widely accepted as the standard for SROI work. In conducting this SROI analysis, we have followed the principles of this guide.

These are:

-
- Involvement of Stakeholders
 - A focus on understanding what changes
 - Value the things that matter
 - Only include things that are material
 - Avoid over-claiming
 - Transparency
 - Verification of the result
-

² <https://socialvalueuk.org/wp-content/uploads/2023/01/The-Guide-to-Social-Return-on-Investment-2015-2.pdf>

2: Approach and Method

Aims and scope

The aim of this evaluation was to better understand the wider social impact of these grant-funded programmes on customers and others, and the value created for key stakeholders.

Warmworks will use this information to:

-
- Better understand these programmes and the impact they are having,
-
- Evidence and communicate the social value created by these programmes to their stakeholders, funders and the general public,
-
- Get a better understanding of how to measure the wider social impact and be able to apply these techniques in the future,
-
- Inform the strategic development of these programmes.
-

This SROI analysis covers all programmes managed by Warmworks over the financial years 2023/24 and 2024/25.

Methods

Theory of Change

A Theory of Change workshop was held with Warmworks staff to review their existing Theory of Change, which had been created for a previous evaluation of the Warmer Homes Scotland programme in 2020/21. The aim was to make any amendments to ensure that it captures the expected outcomes experienced by householders, supply chain partners, and other key stakeholders.

The content and output of this workshop is explained in more detail in Section 4. At the Theory of Change workshop, customers and supply chain partners were identified as the main beneficiaries and are therefore the focus of this SROI analysis.

Surveys

Two online surveys were designed to gather quantitative data to guide the SROI calculations, one for customers and one for supply chain representatives.

These surveys also provided opportunities for respondents to provide free-text answers to gather some additional, qualitative insights.

The customer survey received **868 responses** (8% response rate), and the supply chain survey received **16 responses** (41% response rate).

Data analysis and reporting

We collated the quantitative and qualitative data from the surveys and also reviewed existing monitoring data collected by Warmworks. This data informed our analysis of the outcomes experienced by stakeholders as a result of the programmes that were delivered during the period. It also informed the SROI calculation. We used the Social Value Engine³ to estimate and calculate the SROI of these programmes and produced a report based on the final impact map created.

³ <https://socialvalueengine.com/>

3: Theory of Change

Workshop

The first step in the SROI process is to develop an overarching Theory of Change (or Logic Model) for the programmes that Warmworks delivers, establishing a clear relationship between input – output – outcomes – impact.

In a previous SROI assessment of the Scottish Government's Warmer Homes Scotland programme in 2020/21, an existing Theory of Change was developed. On Thursday 3rd April 2025, SVL facilitated an online workshop to review and update the existing Theory of Change, ensuring that it was relevant for all of the programmes that were in scope for this analysis.

The session aimed to:

-
- determine the need being addressed by the programmes,
 - identify all relevant stakeholders and their input,
 - determine the activities and outputs produced,
 - explore the expected short-, medium- and long-term outcomes produced,
 - detail the scope of the SROI evaluation.
-

Background and Need

Households in fuel poverty

Within the UK, an estimated 34% of households in Scotland, 24% in Northern Ireland, 14% in Wales, and 11% in England are in fuel poverty (according to statistics published in April 2025)⁴. Fuel poverty is a devolved matter in the UK, so definitions vary slightly, but a household is generally defined as being in fuel poverty when they have to spend a high proportion (often more than 10%) of their net income on keeping their home at a reasonable temperature, while those who spend more than 20% are often considered in severe or extreme fuel poverty. Factors which affect fuel poverty are income levels, fuel costs, and energy consumption. There are some groups who are disproportionately at risk

⁴ <https://researchbriefings.files.parliament.uk/documents/CBP-8730/CBP-8730.pdf>

of or affected by fuel poverty, including low-income households, older people, disabled people, those living with long-term health conditions, and those living in rural areas⁵.

Carbon emissions and the environment

Statistics from 2021 show that 18% of UK greenhouse gas emissions come from heating our homes⁶. This is largely caused by a reliance on high-carbon-producing heating technologies such as burning natural gas. Both the UK and Scottish Governments have developed strategies to reduce carbon emissions, including commitments to install lower carbon alternatives such as heat pumps and improving the energy efficiency of homes.

Energy efficiency

The energy efficiency of a property is a contributing factor to fuel costs and also has an impact on a property's carbon emissions. The fabric of a property can impact its energy efficiency, for example, poorly insulated houses are less energy efficient as more heat escapes from the property into the atmosphere. However, how an occupant uses their heating system can also have an effect, and a significant number of households lack awareness of how to heat their home efficiently. This includes a lack of awareness of:

-
- lower-carbon, more efficient heating methods,
 - how to control their heating systems (e.g. using timers, thermostats and smart technology),
 - how to heat their homes consistently.
-

Effects

Living in fuel poverty or in inefficiently heated homes can have a number of wider social and economic implications. People may be living in cold, damp, and draughty homes, which can worsen their physical health, particularly for those with existing health conditions. It may also impact their mental health and how they feel about their home, contributing to shame or embarrassment. If people are spending a significant proportion of their income on heating their homes, they may also have less money to spend on other expenses and less

⁵ <https://policy.friendsoftheearth.uk/insight/whos-impacted-fuel-poverty-2023>; <https://fuelpovertypanel.scot/key-facts/>

⁶ <https://www.nao.org.uk/reports/decarbonising-home-heating/#:~:text=Conclusions-Background%20to%20the%20report,in%20all%20pathways%20to%202050.>

disposable income, which then affects the local economy. Finally, the carbon emissions produced from heating homes contribute to worsening climate change.

Scope of Activities

Workshop participants reviewed Warmworks' core activities, which were consolidated under the umbrella of "retrofit and domestic energy efficiency upgrades". This includes work such as insulation installation, increasing ventilation, heating upgrades, and draught-proofing.

Additional activities discussed included workforce upskilling, community benefit initiatives, and the use of digital systems to support customer engagement. Warmworks also provides its sub-contractors with support and guidance regarding environmental sustainability, including helping them to measure direct emissions and creating plans to reduce emissions.

Stakeholder Groups and Outcomes

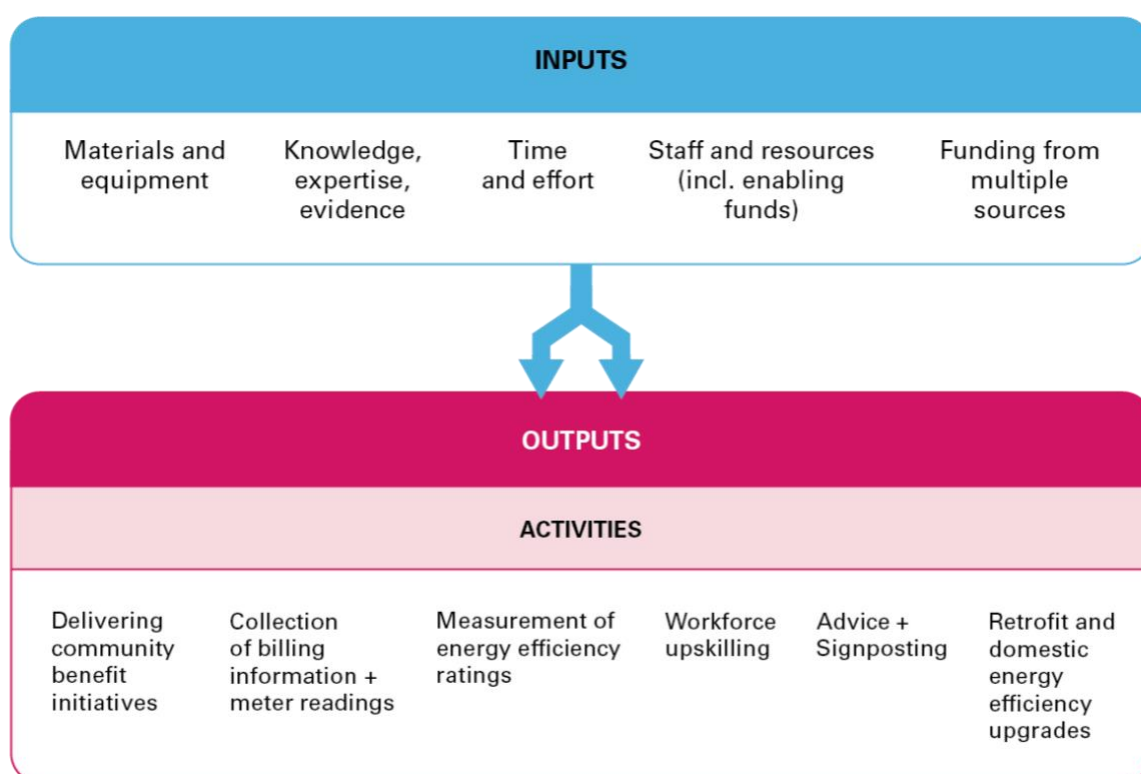
Stakeholders were mapped and categorised as:

- **Customers** (primarily vulnerable groups such as older people, carers, disabled people, and low-income households)
- **Landlords and housing associations**
- **Supply chain partners** (installers, contractors, manufacturers)
- **Local workforce and apprentices**
- **Training and education providers**
- **Local and national government**

Assumptions and External Factors

Critical assumptions were discussed, including the stability of policy and funding environments, continued customer uptake, and reliable supply chain capacity. These are documented in the final Theory of Change below and used to contextualise the impact analysis.

The Theory of Change for the programmes in scope for the SROI is presented below.



OUTCOMES AND IMPACT

STAKEHOLDERS		
UK & Scottish Governments, Local authorities	Local workforce and apprenticeships	Supply chain partners: installers, manufacturers, specialist contractors
SHORT-TERM		
- Reduced health cost - Working towards SG objectives - Reduced benefits cost - Reduced education cost	- Increased skills - More job/ apprenticeship opportunities	- Increased revenue - Increased access to (free) training resources - Increased opportunities to recruit (incl. apprentices) - Increased workforce - Increased opportunities to diversify business through new technologies - Improved quality and Health and Safety standards
MEDIUM-TERM		
- Fewer resources used in treating ill health resulting from/exacerbated by poorly heated homes - Stronger local economies - Fewer social care resources used as a result of improvements in health & wellbeing - Reduced levels of fuel poverty - Lower carbon emissions nationally - Improved housing stock - Increased access to new technologies (developed through the scheme) - Increased quality assurance standards	Increased income (more receiving real living wage)	- Improved skills for workforce - Improved reputation, leading to further opportunities to increase revenue - Increased financial security - Improved sustainability of the business - Greater and sustained contribution to local economies - Sustainability and reduced emissions
LONG-TERM		
Reduced fuel poverty in UK	Energy efficiency improvements in housing stock	Reduced carbon emissions

OUTCOMES AND IMPACT

STAKEHOLDERS		
Customers: People with disabilities, older people, low-income families, carers	Landlords and housing associations	Training and education providers
SHORT-TERM		
- Improved insulation, leading to warmer, less damp homes - Improved SAP rating for home - Improved, more energy efficient heating systems - Better understanding of heating systems - Easier management of fuel costs (more predictability) - More pride in home - Reduced barriers to other forms of support - Increased safety of home	- Warmer, safer, less damp properties - Improved SAP rating for property (Improved compliance with building regulations) - Increased ability to rent out property - Happier tenants	Increased training
MEDIUM-TERM		
- Lower carbon emissions - Improved confidence or self-esteem - Less isolation / more social activity - Improved wellbeing - Improved health - More disposable income/improved wider finances - Increased value of home - Improved educational outcomes (for customers with children) - Increased support with other issues (e.g. wider poverty issues, social care issues, nutrition, other risks to health)	- Improved reputation - More stable/sustained tenancies - More properties meeting EPC rating	
LONG-TERM		
Reduced fuel poverty in UK	Energy efficiency improvements in housing stock	Reduced carbon emissions

Assumptions

-
- There is a need for these programmes
-
- Customers will change their behaviour and use heating systems efficiently
-
- Customers will be happy with the service provided
-
- The inspection audits done of these programmes are adequate and accurate
-
- Customers will come to the programme because they are living in a cold home
-
- Funders are keen to move away from fossil fuels
-
- Reliable supply chain capacity
-
- There are people to take up opportunities for jobs and training
-
- People from diverse backgrounds and genders want to get involved
-
- Jobs are completed on time
-
- Suppliers we work with provide real living wage
-
- Young people will want to work in the area
-

External Factors

-
- Stable policy environment
-
- Scottish and UK Government Policy
-
- Economic situation
-
- Availability of skilled workforce
-
- Continued funding
-

4: Background Data

About the data

A total of 13,740 households were supported by programmes delivered by Warmworks during the financial years 2023/24 and 2024/25. The majority of households (94%) were owner-occupied, with 4% being housing association or social rented properties, and the remaining 2% privately rented.

Warmer Homes Scotland, the Area-Based Schemes in Orkney and Comhairle nan Eilean Siar and the programmes with Newcastle City Council and Cambridgeshire and Peterborough Combined Authority predominantly catered to owner-occupied households, whereas the Social Housing Net Zero Heat Fund programmes were all with housing associations.

Customers from the housing association programmes are properties requiring work referred by the housing associations directly. For other programmes, including Warmer Homes Scotland, customers self-refer, for example, by contacting Home Energy Scotland to see if they are eligible for any retrofits or upgrades. These self-referrals currently make up the majority of Warmworks' customers.

A total of 6,996 fabric measures, 2,758 renewable heating measures, 3,676 zero direct emissions heating measures, and 8,600 direct emissions heating measures were installed over the two financial years in scope. The types of measures again varied across programmes, as summarised in Table 1 below.

TABLE 1: UPGRADES INSTALLED BY PROGRAMME

	Fabric Measures	Renewable Measures	Zero Direct Emissions Heating Measures	Direct Emissions Heating Measures
Warmer Homes Scotland	5587	1641	2987	8600
Orkney (Area-Based Scheme)	217	0	137	0

Comhairle nan Eilean Siar (Area-Based Scheme)	136	0	0	0
Newcastle City Council	42	56	27	0
Cambridgeshire and Peterborough Combined Authority	625	360	214	0
Wheatley Homes South	291	567	173	0
Waverley Housing	0	11	21	0
Berwickshire Housing Association	0	43	79	0
Cunninghame Housing Association	98	0	0	0
West of Scotland Housing Association	0	66	33	0
Langstane Housing Association	0	14	5	0

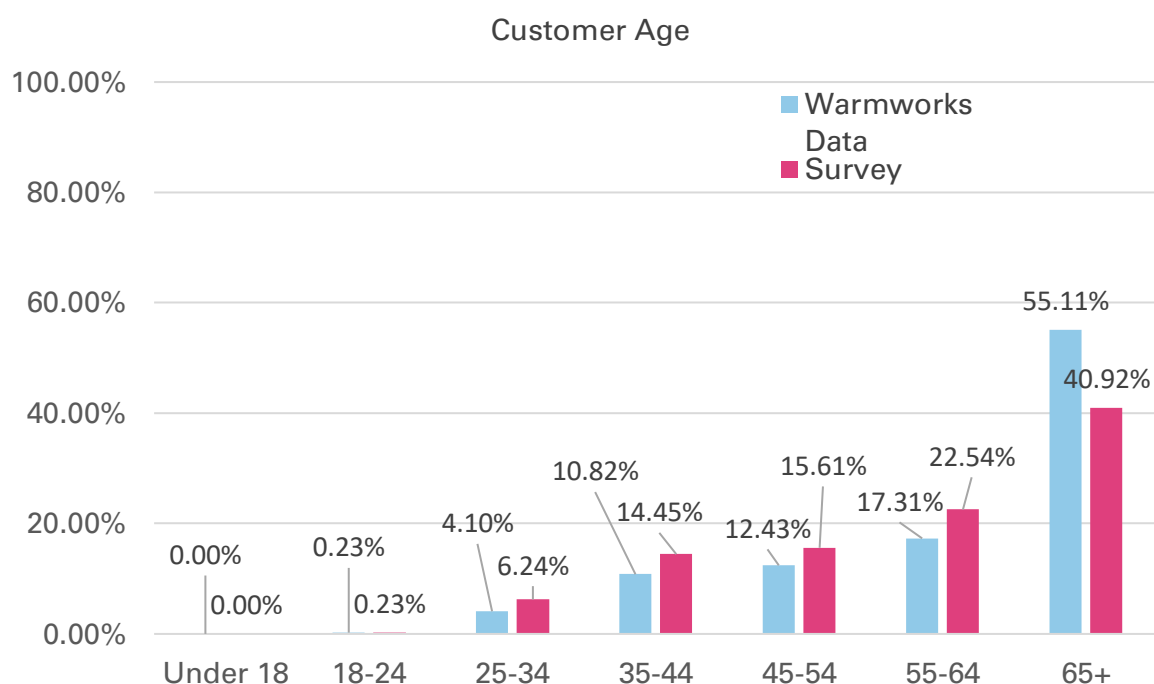
Survey Demographic Data

In addition to answering questions about the impact of the work done through these programmes, customers were also asked some demographic information to provide insight into who Warmworks is reaching.

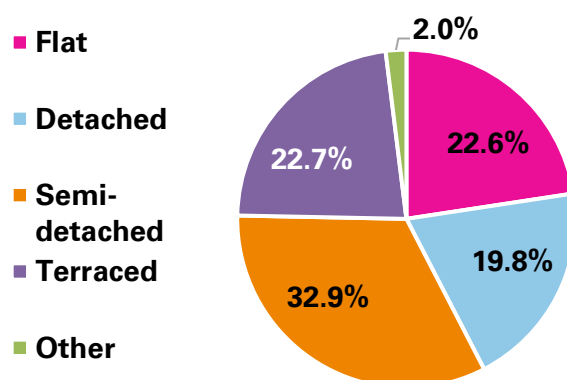
Customers

Household Makeup

The age of customers who completed the survey was broadly representative of the distribution of customer ages recorded by Warmworks.

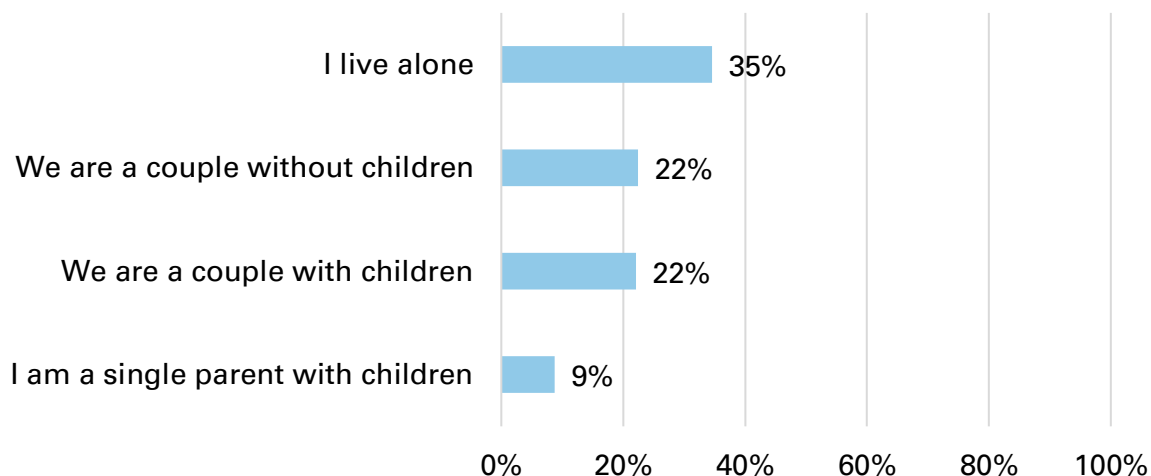


95% of survey respondents were homeowners, with 3% in privately rented properties, 1% in socially rented or housing association properties, and 1% in other arrangements, including shared ownership and part-buy. There was fairly even distribution of those who resided in flats, detached properties, semi-detached properties, and terraced properties, with a small number who also resided in other types of properties, including maisonettes and park homes.

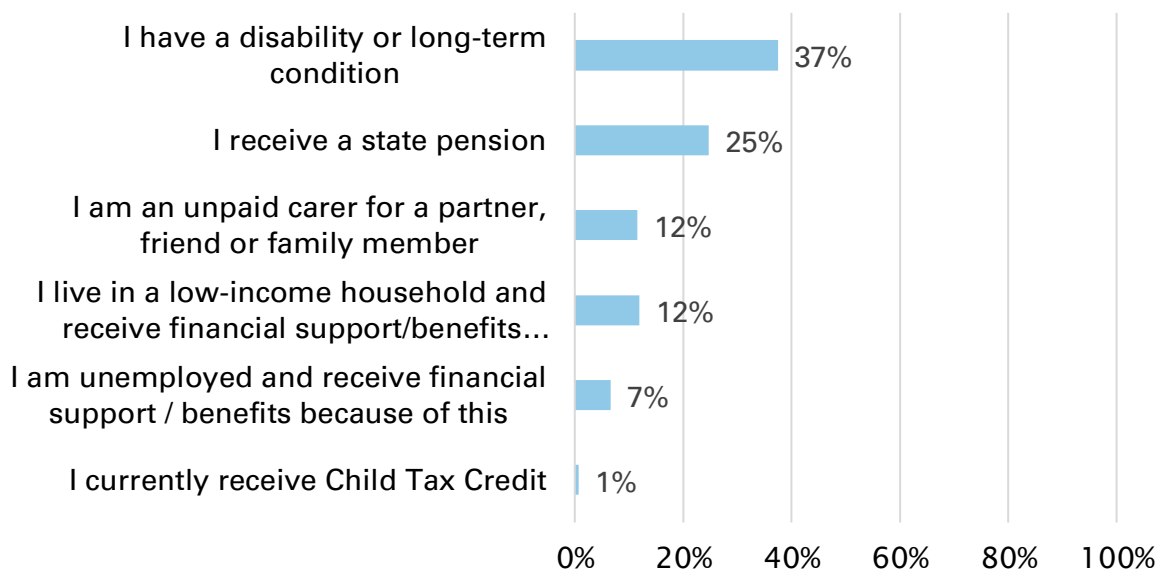


In terms of their household makeup, 31% had children as part of their household, while over half (57%) either resided alone or as a couple without children. 37% of respondents had a disability or long-term health condition, and 25% were in receipt of a state pension. Survey respondents also included unemployed or low-income households (19%), unpaid carers (12%), and those in receipt of child tax credits (1%).

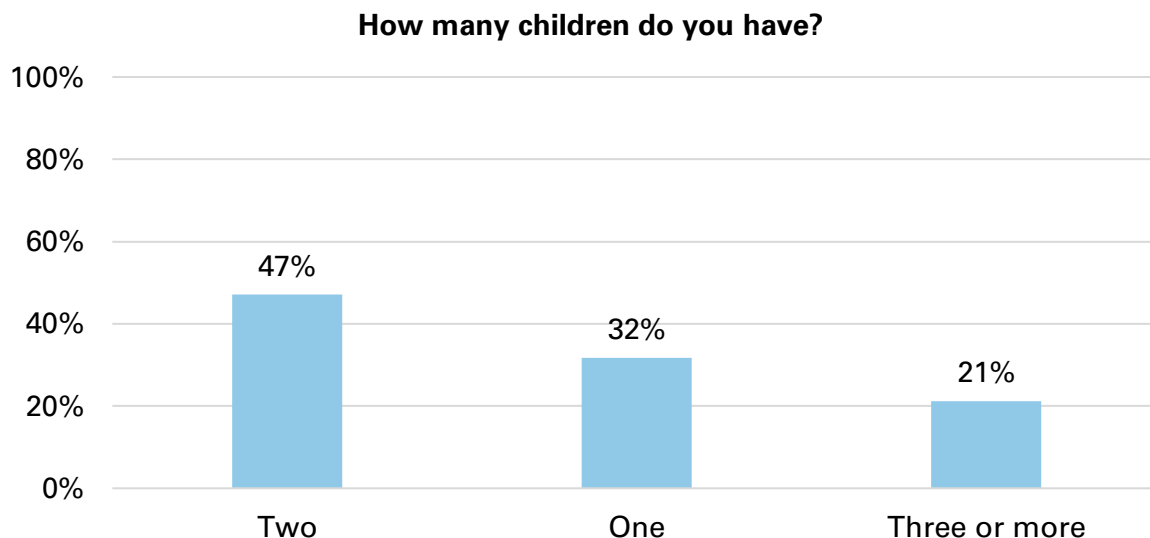
Which of the following best describes your household?



Which of the following best describes your household?



For customers with children, 47% had two children in their household, 32% had one child, and 21% had three or more children. 4% noted that they had children under the age of one. If we assume that the survey respondents are representative of the overall customer base, then this would estimate that during the financial years 23/24 and 24/25, some 4,259 households with children were supported, 170 of which had children under the age of one. Broken down further, this estimates 2,002 households with two children, 1,363 households with one child and 894 households with three or more children.



Services provided under programmes

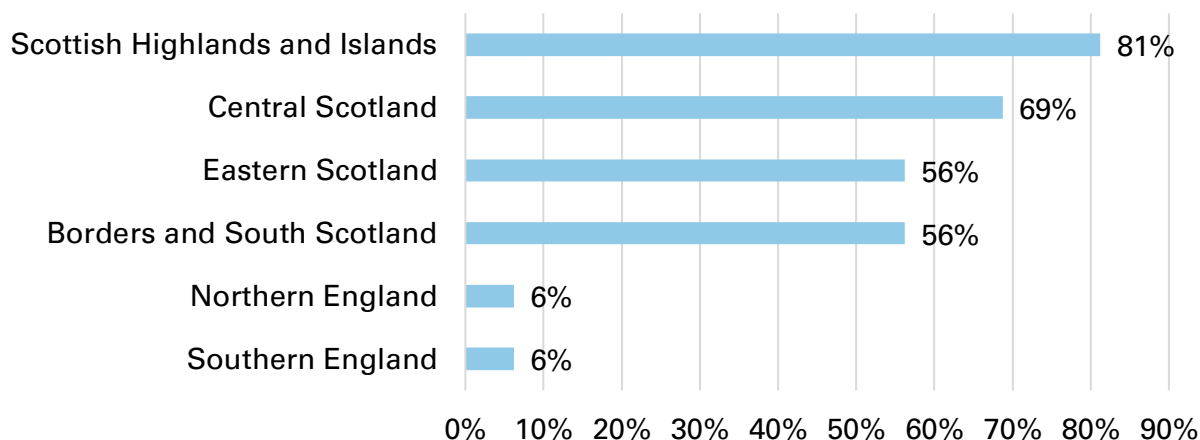
The majority of customers who responded to the survey (70%) received direct emissions heating measures in the form of gas boiler replacements. Just over half (51%) received fabric measures including insulation, ventilation improvements and draught elimination. 26% received zero direct emissions heating measures, including air source heat pumps, storage heaters, and smart heating controls, while 15% received renewable measures, including solar PV or thermal systems, and battery storage technology.

Other services customers received included new and replacement radiators, full heating system replacements, new doors, smoke and heat detector installation, water tank replacements, and oil boilers.

Supply Chain

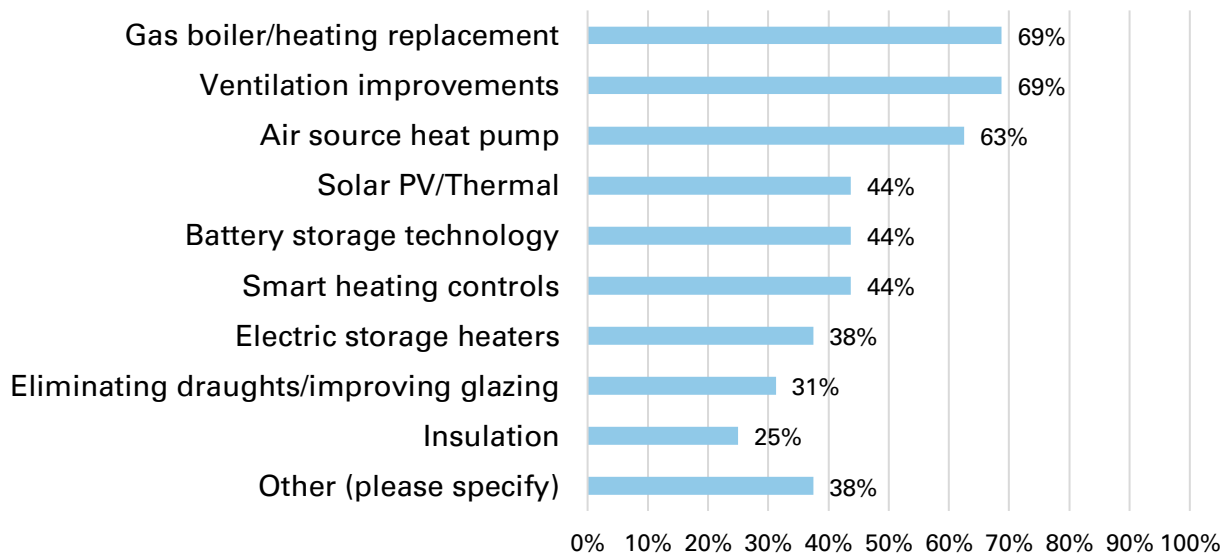
Warmworks currently works with 40 organisations as part of their registered, accredited supply chain, which is made up of 39 sub-contracted SME installers and one merchant. Most (75%) of the supply chain survey respondents had been working with Warmworks for more than six years. The majority provided services in Scotland, with one respondent covering Northern and Southern England.

Which geographical areas do you serve under the Warmworks contract?



Most of the organisations that responded to the survey were involved in providing a number of services for Warmworks. There were a couple that provided specialist services in one domain, such as asbestos removal or scaffolding.

What improvements/services have you been involved in providing for Warmworks?



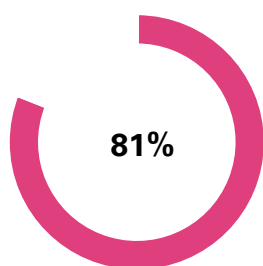
In addition to those listed above, supply chain survey respondents also provided other services, including oil boiler and door replacements.

5. Outcomes for Customers

As not all customers received the same type of retrofit or upgrade, some outcomes may be less relevant or not apply to certain customers, depending on the work received. However, unless otherwise specified in the outcome analysis in Section 5, each outcome has been calculated as a percentage of the data from all customers.

Short-term Outcomes

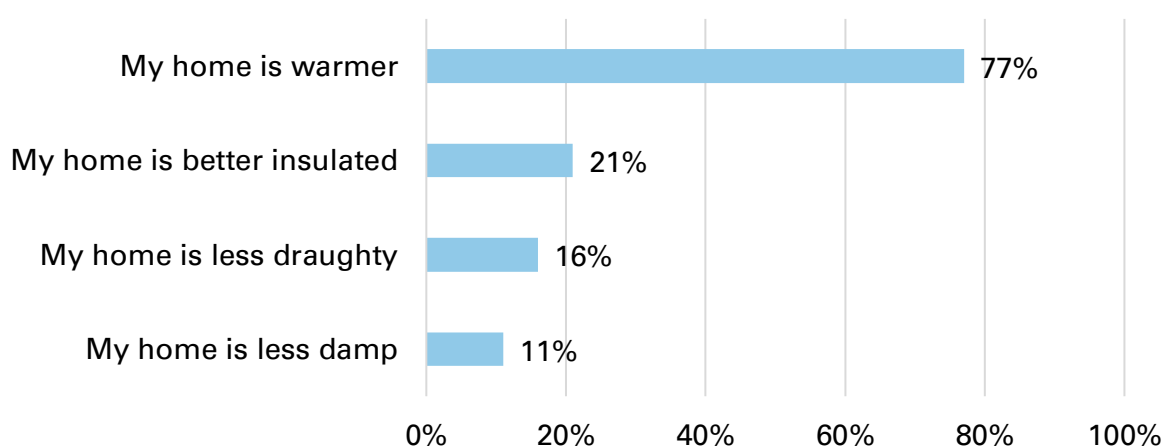
Improved insulation, leading to warmer, less damp homes



Most of the customers (81%) who responded to the survey reported that their homes were better insulated, warmer and/or less damp.

When explored in more depth, the most significant outcome was that people's homes were warmer (77%), with better insulation (21%), less draughty (16%), and less damp (11%), also reported to a lesser extent.

Has the service from Warmworks had a positive impact on your property?



Some customers mentioned that because of old and faulty boilers and radiators, they had previously been unable to heat their homes or have access to hot water, but as a result of the work carried out, they can now do both. Additionally, customers mentioned the positive impact that insulation had on their property's heat retention, with some expressing surprise at how much of

a difference they felt it had made. These improvements led to many customers reporting feeling more comfortable in their homes.

“The insulation in the roof has had a dramatic impact on the heat retained in the house, which I hadn't expected. It really does make such a huge and noticeable difference!”

“Since Warmworks did the work, I no longer sit in a cold house that I can't afford to heat. Our home is warm and comfortable.”

“My home was absolutely freezing and damp and had condensation. So cold we could see our breath at times. We wore layers and layers and used blankets. It had electric panels for heating in some rooms, but it was way too expensive and didn't heat the rooms at all. The new gas heating has changed our lives 100%, and we are so grateful. No more dampness, no more being cold. Windows don't have condensation.”

Some survey respondents who did not report improvements to the warmth, insulation or dampness of their home also provided some additional insights into why. For some who had work done recently, they felt it was too soon to tell if there had been any improvements, particularly as the survey was completed in the summer.

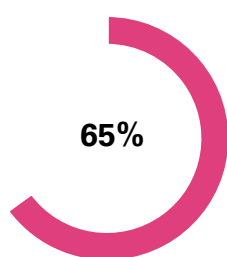
For others, one of the main reasons cited was that their house wasn't retaining the heat created because of factors beyond the scope of the programmes in question. Reasons for this depended on the upgrade provided and type of property, but included increased ventilation creating draughts and single-glazed windows allowing heat to escape.

This also suggests that some customers may lack understanding about the benefits of ventilation and regulations surrounding this and would benefit from further education.

“All the heat we are paying for is essentially going out the windows.”

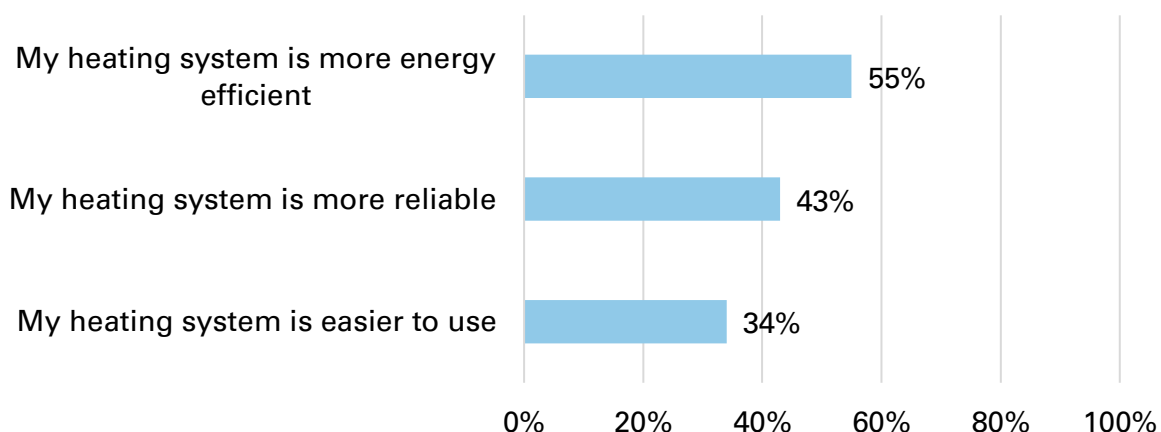
“The bathroom and kitchen are colder because of the extractor fans.”

Improved, more energy efficient heating systems



65% of the customers who responded to the survey stated that their heating systems had been improved through the work carried out. Just over half (55%) felt that their system was more energy efficient, while 43% found it to be more reliable, and 34% found it easier to use.

Has the service had a positive impact on your property?



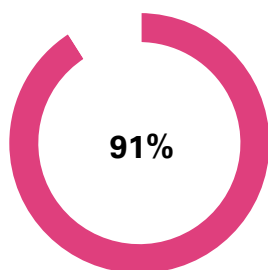
A small number of customers felt that their previous systems had been better or more efficient. However, several customers mentioned that the new systems installed had replaced old, unreliable, and sometimes damaged systems and highlighted the positive difference that having a reliable system had made.

Additionally, several customers specifically noted that they appreciated the increased control that their new system provided – particularly being able to use technology and control their heating remotely.

“The boiler fitted is a good one, and I also had all radiators replaced. The difference it has made is fabulous! My old boiler was very noisy – now I hardly hear a thing. My old radiators were yellowed and peeling, as well as ineffective. They look smart and are very efficient. It has made such a difference to my experience of living in the flat.”

“New storage heaters are so much easier to control with individual thermostats, and once I bought the Wi-Fi control, I can even adjust them when away from home – all adding to the improved energy efficiency and lower energy use overall. The hot water heater also has a separate timer, so it can be set to be on much less than was previously possible.”

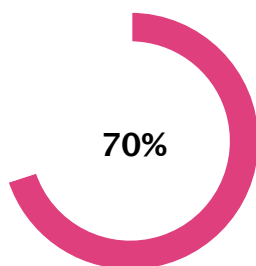
Improved SAP rating for home



Customers were not asked about whether there had been improvements to the SAP (Standard Assessment Procedure) or corresponding EPC (Energy Performance Certificate) rating of their home during the survey, as it was determined that most customers would not have this information readily available.

However, Warmworks recorded the pre- and post- SAP ratings of the homes of their customers for the majority of the programmes they worked on in the years 23/24 and 24/25 (all apart from Energy Efficient Scotland: Area-Based Scheme for Comhairle nan Eilean Siar). The data capturing the change in SAP rating was available for 12,453 households. The overwhelming majority (91%) had an improved SAP rating following retrofit or upgrades provided, with an average SAP increase of 8.64 across both financial years and all programmes.

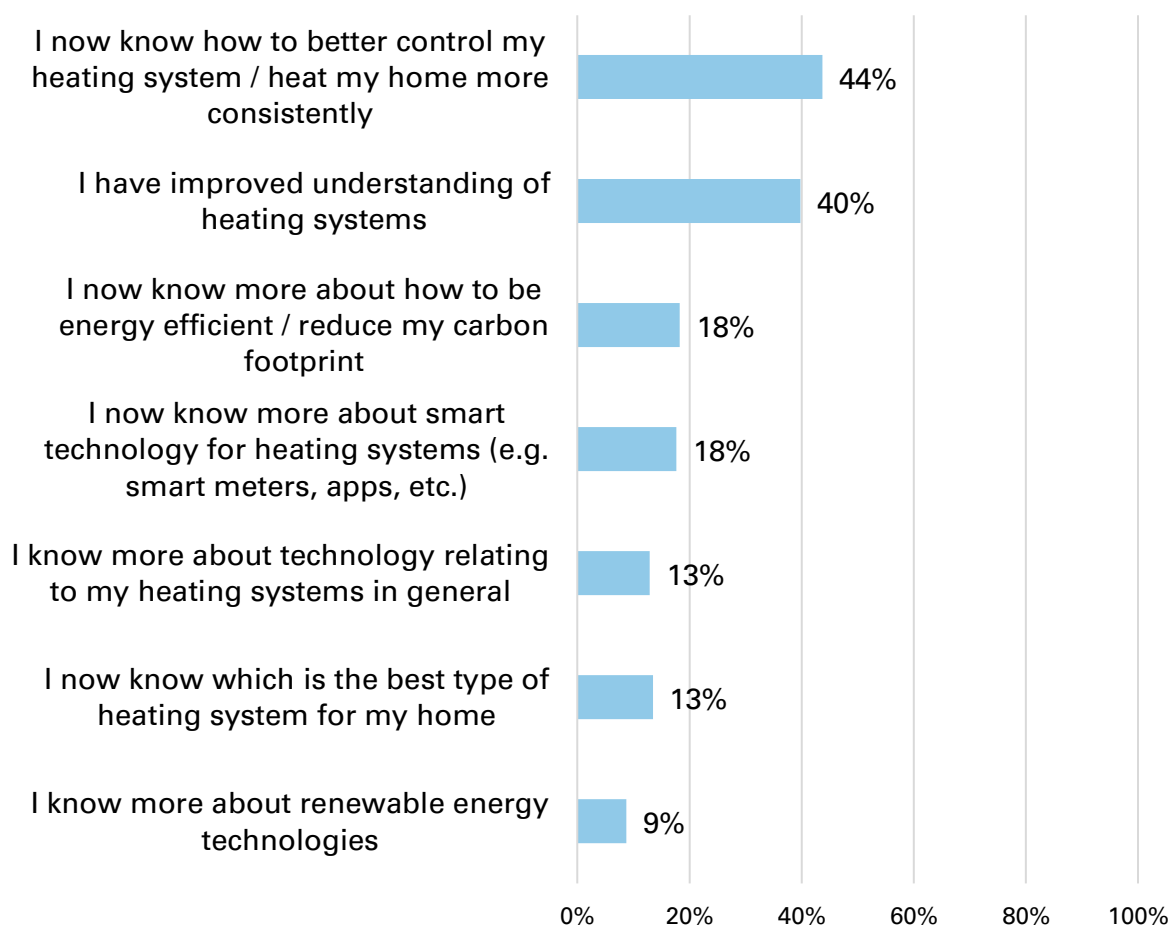
Better understanding of heating systems



In addition to the physical upgrades, Warmworks also aimed to increase their customer's knowledge around heating their home. The majority (70%) of customers surveyed felt that they had a better understanding of their heating system following the completion of the process.

This primarily included better knowledge of heating systems (40%) and how to control them (44%). However, for a smaller number of customers, it also helped to increase their understanding of smart technology, general technology related to heating, the best heating systems for their home, renewable technologies, and how to be more energy efficient.

Has the service improved your understanding of energy use or heating?



Some customers noted that the retrofit process had made them more aware of their energy use, costs and how to make savings. Some also felt that it had

helped their understanding and confidence in controlling their heating system, although there were a few who felt unsure as to how their new system worked.

“Has made me more aware of energy-saving methods.”

“Made me more aware of energy costs and possible ways to save.”

“Given me confidence to control heating myself.”

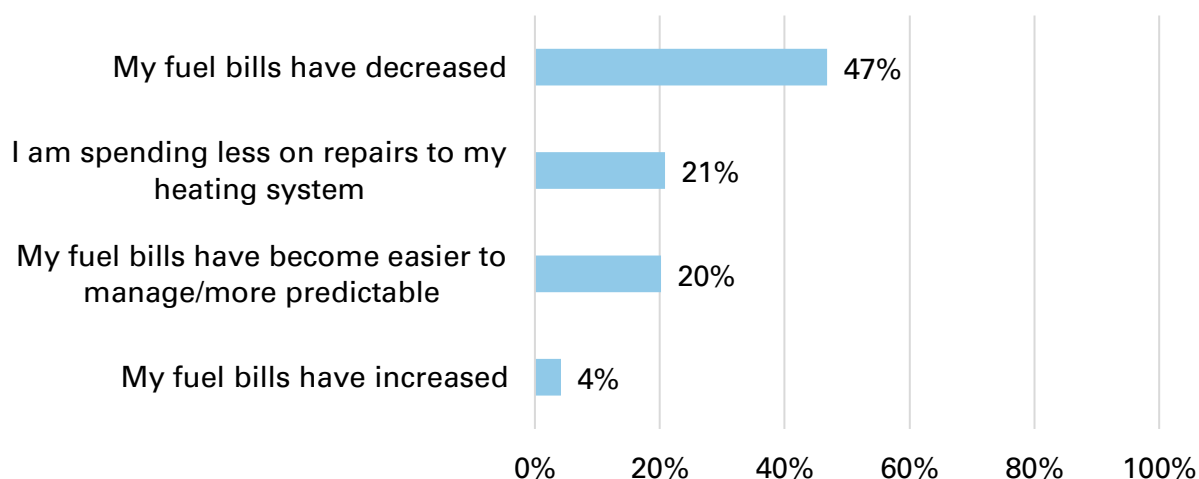
“I absolutely love the new system, but really struggle still on how to adjust the settings.”

Decreased fuel costs

56%

Just over half (56%) of survey respondents reported that the amount they spend on heating their home had decreased, either through reductions to their fuel bills or reduced costs required to maintain and repair their energy systems. Just over a quarter (27%) of customers experienced no change to their fuel costs, and a small percentage (4%) experienced an increase in fuel bills. A smaller number of customers (20%) also reported that they had benefited because their fuel costs became easier to manage.

Has the service made any difference to your fuel bills?



In addition to the data gathered in this survey, Warmworks also collected information regarding the change in average household energy bills for two of their programmes: Warmer Homes Scotland (phases 1 and 2) and the Energy Efficient Scotland: Area-Based Scheme for Orkney, totalling 10,976 households. This analysis showed a projected average saving per household of £445.65. Customers who responded to the survey reported average savings of about £31 per month.

A number of customers were unsure about the impact the work has had on their fuel costs. For some, this was because they pay a fixed direct debit, they had only recently had the work done, or they were unable to accurately assess their fuel spending, as this survey was conducted during a period of warm weather in the summer. However, a significant number of customers also mentioned that it was difficult to keep track of any savings due to the rising and fluctuating energy costs, with some feeling that any cost savings provided by the retrofit work had been offset by rising energy prices.

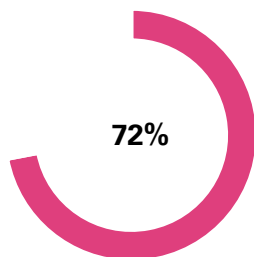
“Bills have been reduced due to more efficient heating system.”

“Benefits from the solar panels means I can time my usage to when they are generating, which keeps my bills down.”

“I would say that it is offering consistency, which, as a disabled woman, is something I desperately rely on and I am truly grateful for.”

“Heating is more efficient but increase in gas and electric prices has swallowed up any savings.”

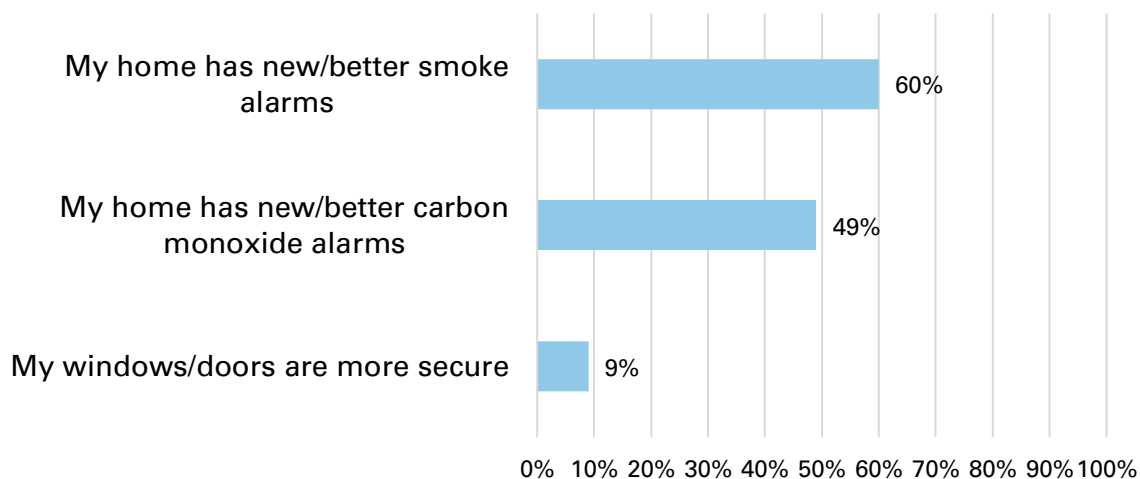
Increased safety of home



As a result of the services provided, 72% of customers reported that they felt their home was safer. This was largely because of new smoke and carbon monoxide alarms being fitted, but for some customers, this was a result of having more secure windows and doors.

A number of customers also commented that they felt safer because their new energy system was newer and more reliable.

Do you think your home is now safer as a result of the service?

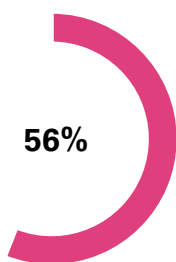


"I have integrated smoke alarms, etc., so I feel safer."

"My gas boiler is operating well, and that makes me feel infinitely safer and warmer."

"I don't know if the house is any safer, but – as a very senior lady – I am safer as the house is warmer."

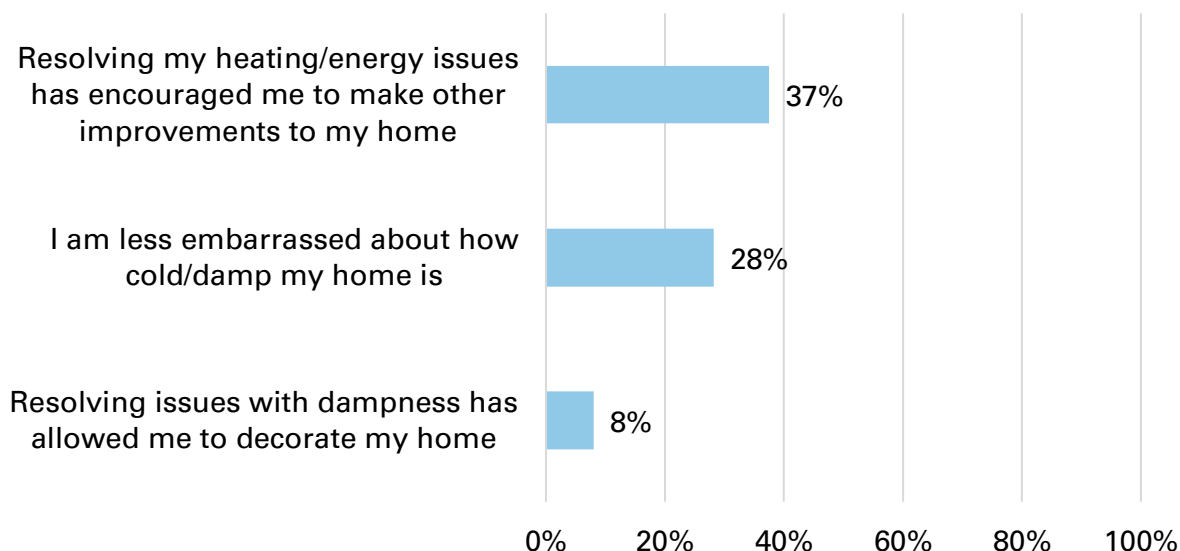
More pride in home



Over half (56%) of customers who responded to the survey stated that they felt more pride in their home. For 37%, they had been able to make other improvements to their home after resolving their energy issues, and 28% felt less embarrassed about their home.

For customers where this was not the case, they primarily cited not liking the look of the new upgrades or having to redecorate at their own expense following the works as reasons why.

Has the service you received made you prouder of your home?

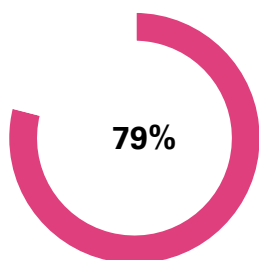


"The house feels a lot better. We are just starting to decorate now; it makes such a difference."

"It feels better to have a warmer home, especially when family visit me."

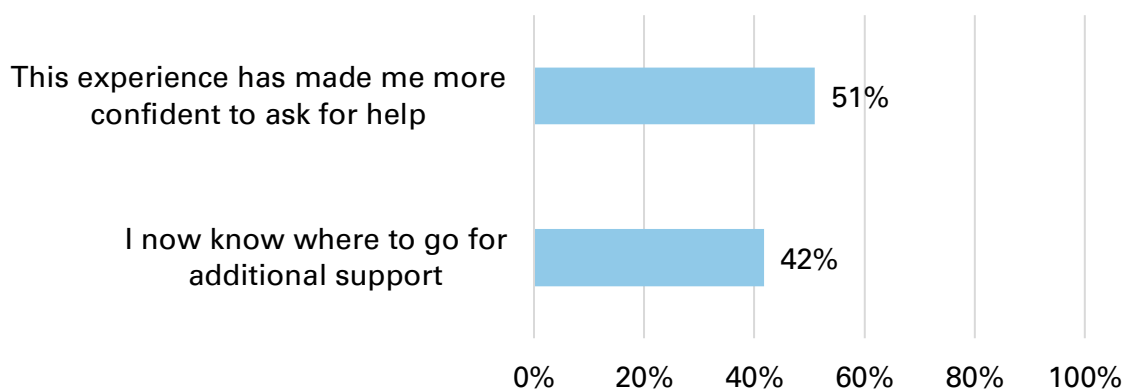
"Can't afford to redecorate/repair after works, obvious where have been done, need replastered and painted."

Reduced barriers to other forms of support



The majority of customers (79%) felt that their involvement with the programmes had reduced barriers to their accessing support. For just over half of customers, the experience made them more confident to ask for help and for 42%, they now felt they knew where they could go to access wider support.

Has your experience made you more likely to ask for help in the future?

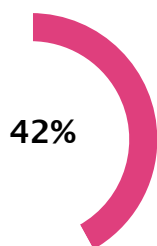


“Yes, would definitely seek out help in the future after the positive experience with Warmworks.”

“Yes and no. Have asked about other schemes, i.e. windows or solar panels, but no funding is available as yet.”

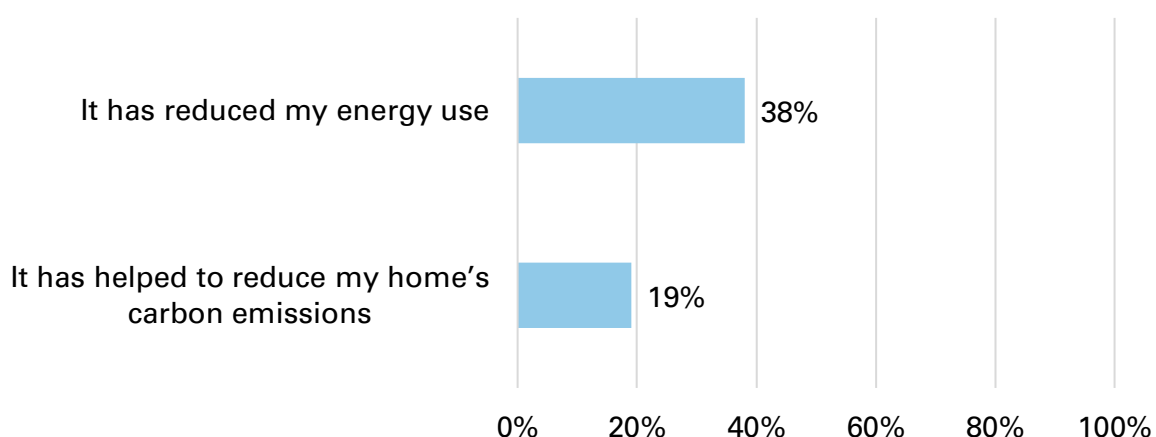
Medium-term Outcomes

Lower carbon emissions



42% of survey respondents reported that the retrofit works carried out had helped to reduce their carbon emissions, which they either reported directly or as a result of helping them to reduce their energy usage.

Has the service had a positive impact on your property?



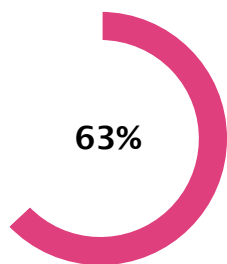
Warmworks also collected data on the average reduction in carbon emissions per home for four of their programmes: the Home Upgrade Grants for Newcastle City Council and the Cambridgeshire and Peterborough Combined Authority, Warmer Homes Scotland (phases 1 and 2), and the Energy Efficient Scotland: Area-Based Scheme for Orkney.

Data was available for a total of 10,462 households, with an average CO₂ emissions saving of 1.04 tonnes per household. The retrofit and upgrades installed are also expected to last up to 30 years, so it is anticipated that emission savings will continue over time, resulting in a longer-term outcome.

"I believe my energy use is slightly less, thanks to having the solar panels on my roof."

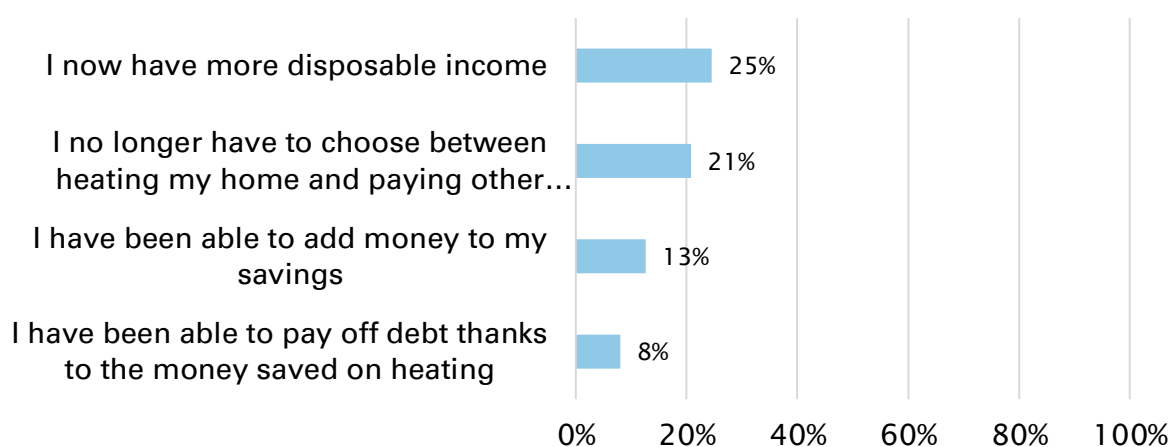
"It has made my home more environmentally friendly."

More disposable income/Improved wider finances



For customers who noted a decrease in their fuel costs after work provided under these programmes, 63% also experienced an improvement in their wider finances. This included an increase in disposable income, and no longer having to choose between heating and other bills, increasing their savings, or being able to pay off debts.

If your fuel bills have decreased, has this had any impact on your wider finances?



As with the change to fuel costs, customers mentioned that the increase in fuel prices and the cost of living in general had prevented them from seeing benefits regarding their wider finances.

Some respondents also mentioned that they had to spend some money of their own to enable the works to go ahead (for example, for asbestos or flooring removal) or to redecorate after the works. However, several also noted that not having to save and pay for upgrades to their home energy systems themselves was a significant relief to their finances.

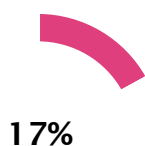
"The service has had a huge effect on me financially as I would have struggled to afford to upgrade my boiler, improve my insulation in the house and install extractor fans. My boiler was on the brink and had been repeatedly causing issues, which required service charges for a gas engineer to fix it, and I was struggling to finance such costs."

"I'm more relaxed about being able to pay my bills on my pension."

"I had to pay for all my floors to be uplifted and replaced. I don't get a pension until next year, so it was a bit of a sacrifice, but pleased with my new boiler."

"As we need more home improvements, we can use savings towards this."

Increased value of home



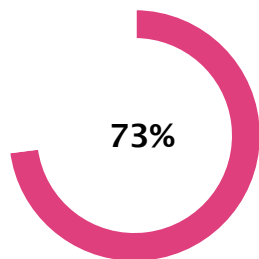
Almost one fifth of survey respondents (17%) reported an increase in the overall value of their home following the energy efficiency upgrades being completed.

Several customers were also unsure about this, as they had not had their home valued, so it is possible that there may have been a greater impact on this outcome than was captured in the survey.

"We sold our house and received a fantastic offer for it, that helped offset our cost of our new bungalow."

"I am currently selling my property, and it has increased in value!"

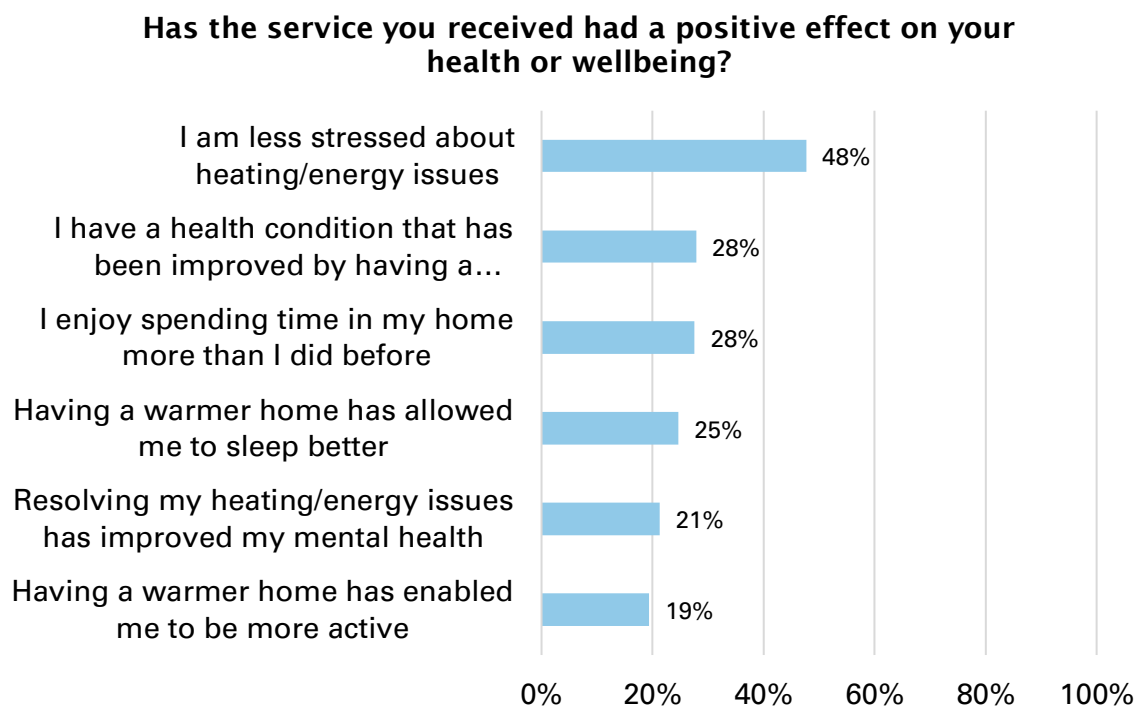
Improved health and wellbeing



Almost three quarters (73%) of customers surveyed reported that the services provided under these programmes had improved their health and/or their wellbeing.

For almost half (48%), this was as a result of feeling less stressed about their heating or energy issues, but other wellbeing benefits also

included feeling better about spending time in their home, improved sleep, and improvements to their mental health. 28% of customers also experienced improvements to existing health conditions because of having a warmer, less damp home.



Customers commented that the improvements had made their house more comfortable, making them feel happier. They also mentioned that the works had given them peace of mind knowing that they don't need to worry about their heating system anymore. Those with specific health conditions, such as lung problems, arthritis, and anxiety, also reported that having a warmer, less damp home had benefited their health.

"It has made my house into a home again."

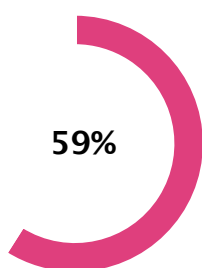
"We're happier! The stress we had before the installation of how we could afford the new boiler was causing a breakdown in mine and my partner's relationship, and we were so stressed. It became a much happier home immediately after Warmworks."

"The winter before our system was replaced, I was often so cold I just wanted to cry, and thankfully – incredibly gratefully – I haven't been that cold since we had it replaced."

"I have a few health problems but having a nice warm house that is not damp helps with my lung problems."

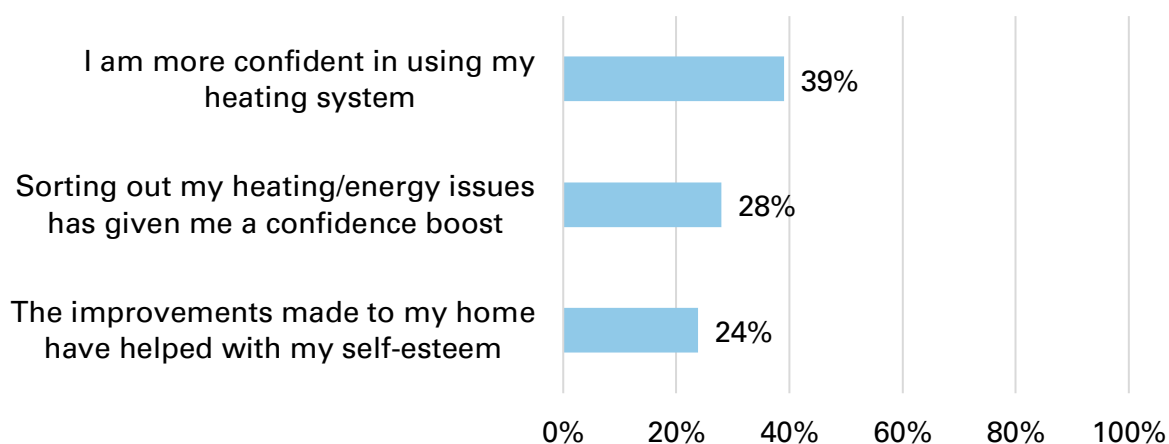
"I am less worried about the impact on my kids of sleeping in a damp bedroom (because their room is no longer damp)."

Improved confidence or self-esteem



In addition to improvements to health and wellbeing, over half of survey respondents (59%) experienced an increase in their confidence or self-esteem. This was primarily because people felt more confident about using their heating systems, but some also reported feeling a general confidence boost from resolving the issues they were experiencing with their heating or energy systems (28%) and improvements to their self-esteem (24%).

Has the service you received had a positive effect on your confidence?



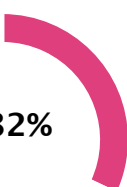
"I regularly check and use the thermostat. I am comfortable topping up the boiler pressure."

"Given me confidence that my home is more modern, safer and has more value added to it."

"Feel more confident in my home."

Less isolation/more social activity

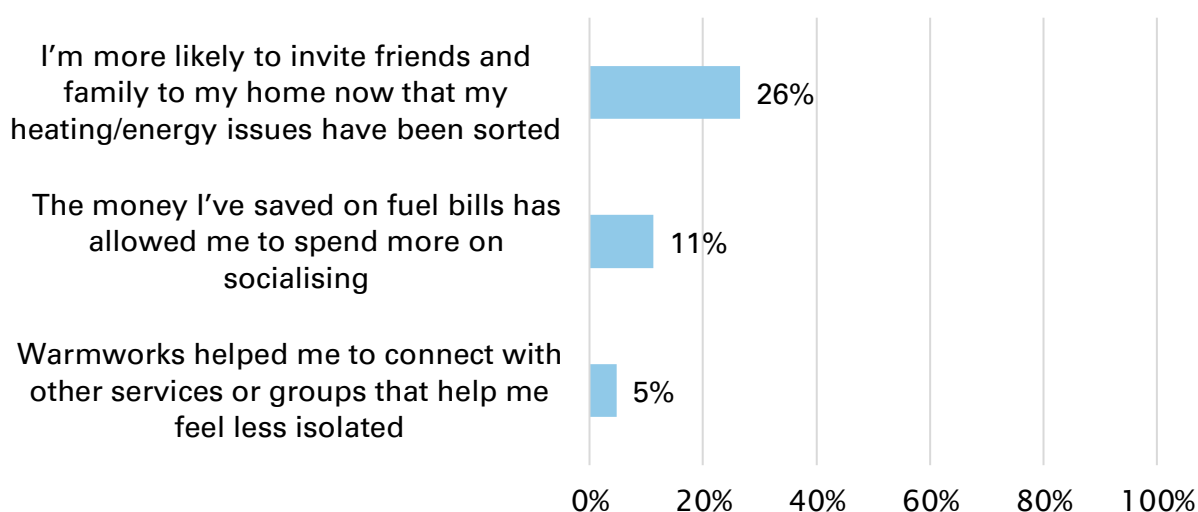
32%



For a smaller number of customers, the heating/energy improvements provided also contributed to an improvement in their social activity.

Most of these improvements were related to feeling more comfortable inviting friends and family to their home, but improvements to finances and connection to other services were also noted to a lesser extent.

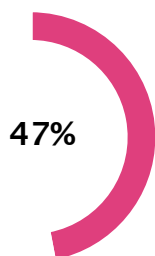
Has the service you received made you less isolated or more socially active?



"We host people here now, which makes me feel so proud of our nice, warm little home."

"I don't socialise due to anxiety, but if someone comes to my flat, I am not embarrassed anymore about the damp, cold rooms and need for blankets, etc."

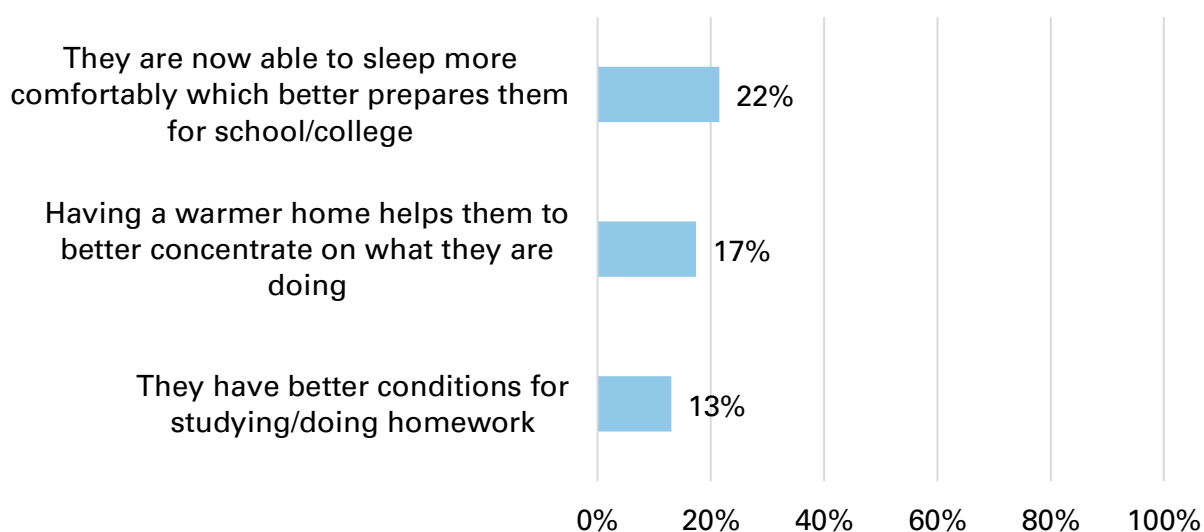
Improved educational outcomes (for customers with children)



Almost half of customers with children (47%) felt that the improvements to their heating/energy systems had contributed to improvements in their children's educational experience. 22% agreed that their children were now able to sleep better in preparation for school/college, 17% felt that having a warmer home

improved their children's concentration, and 13% agreed that it provided better conditions for studying.

If you have children living in your home, has improvements to your heating system had a positive impact on their school experience?

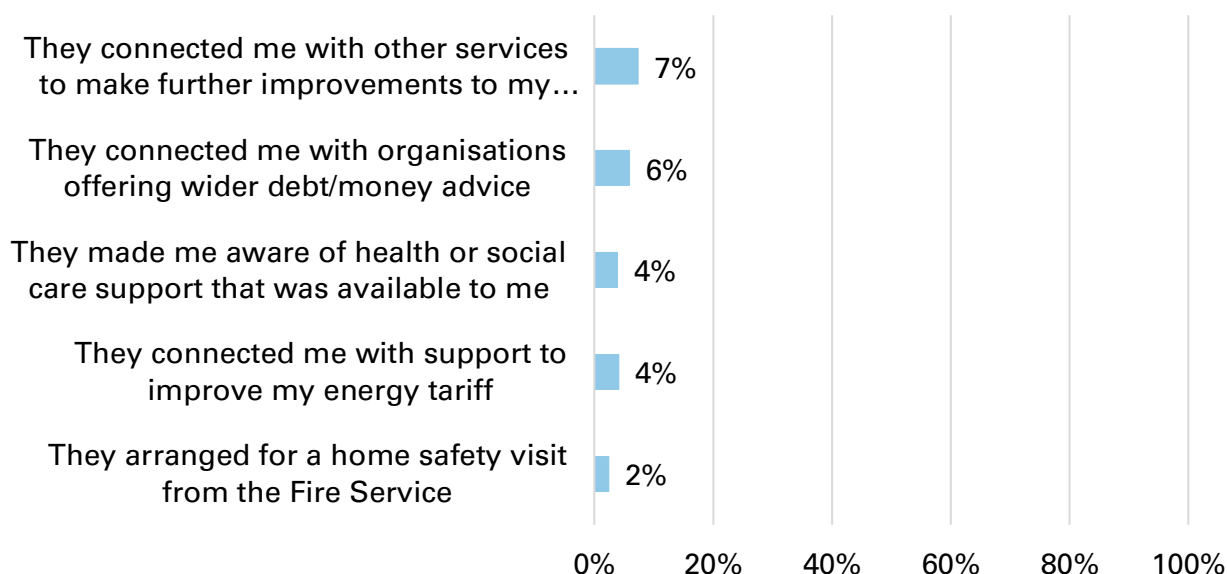


Increased support with other issues



For one fifth of customers, in addition to the direct upgrades or retrofits provided, Warmworks also helped them to access additional support for other issues. This included other ways to improve their home, signposting to money advice and support services, ways to improve their energy tariff, safety visits from the fire service, and other health and social care support.

Did Warmworks help you access any other types of support?



"Not part of the service, but the Warmworks surveyor discovered rotten floorboards under my shower room, which led to me making an insurance claim to rectify. If not for Warmworks, the damage to my home could have become far more extensive before becoming obvious."

Challenges and improvements

Many customers commented that they felt the service they had received from Warmworks under these programmes was excellent, and they did not experience any difficulties. There were, however, a few challenges and areas for potential improvement highlighted by some customers.

Some customers felt that there could have been clearer communication at the start of the process about exactly what work would be done to their property and what preparation work would need to be done and paid for by the customer. There were a few customers who mentioned being unsure about what services they were receiving or not receiving the services they were originally offered, without knowing why. Others were unaware that they would be responsible, for example, for removing flooring or asbestos. Additionally, some customers also had to complete repair or redecoration work after the main work had been installed, which they felt there could have been more support with.

“Better initial communication with me and between WW and contractors, more involvement of homeowner at initial stage, so aware of and agree to planned works.”

“Make people aware that an additional cost is involved, e.g. having to replace wood flooring and tiles.”

A few customers also felt they would have benefited from more follow-up after the work was completed to ensure that they knew how to operate their heating systems and how to arrange boiler services, for example, in the future.

“Better contact for follow-up service as it never happened, then when I realised, I was too anxious to contact as it had been past a year.”

“I think a follow-up visit to check if customers can competently handle the new equipment would be well worthwhile.”

Finally, some customers felt that more awareness could be raised about the services offered through community outreach and through advertisement, particularly by the Government and other official means. They felt that people may not know about these programmes or that they are eligible for support and also may be wary of the offer not being legitimate.

“Hosting local information sessions or partnering with community groups could raise awareness among those who might not know they’re eligible for support.”

“It's hard to know genuine help from scammers. More advertising from the government could help with this.”

Overall comments

In general, the majority of customers were very satisfied with the services carried out and felt that it had made a positive impact on their homes and lives. The small number of negative experiences reported were mostly as a result of individual circumstances and did not appear to be reflective of the services provided in general.

“The service I received has not only enhanced wellbeing in terms of keeping my physical health stable due to a better environment, it has had such a positive psychological impact on me.

The gentlemen who came out to provide the services were so lovely and very helpful in every possible way and I am truly grateful to them and Warmworks.”

“The biggest value for me from Warmworks’ service was that the whole installation was organised for me, from start to finish. I had really serious mental health problems – major depression – and was completely unable to do anything for myself. Warmworks was the only real help/support I got from the State. I could never have organised a new heating system by myself. It would have broken down, and I would have been left sitting in a freezing cold house with no heating. And that would have been the final straw for me. It was a massive, massive weight off my mind that somebody came in and organised it for me.”

“I feel less guilty about using my heating because I know it is efficient, it doesn't need to be on long to warm up, so it's not costing me a fortune or harming future generations.”

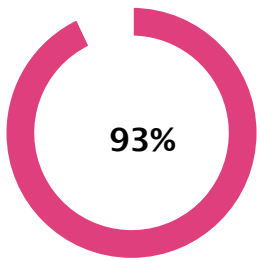
“Warmworks has truly transformed our home. The improvements made – like better insulation – not only made our house warmer during the winter months but also helped reduce our energy bills significantly. It’s made a real difference to our family’s comfort and wellbeing. We feel more secure, and our home feels like a sanctuary.”

“I cared for my father in his home for more than 2 years. The support that he received from Warmworks really improved the quality of his final year and a half. The house was transformed, and we were able to get on top of the debts that Dad had run up on fuel bills. Cannot thank enough for this.

6. Outcomes for the Supply Chain

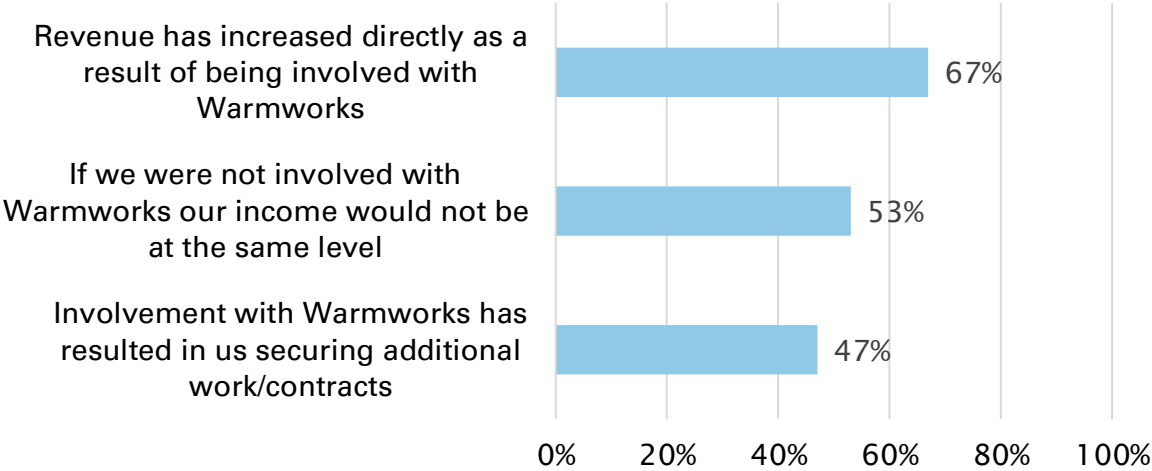
Short-term Outcomes

Increased revenue



The vast majority of supply chain respondents (93%) reported an increase in their revenue because of their work with Warmworks and the programmes involved. For most (67%), this was a direct result, and 53% said that their income level would not be the same if they were not involved in delivering these programmes. For 47% of respondents, their involvement with Warmworks has also helped them to secure additional contracts.

Has being involved with these contracts led to an increase in revenue for your business?



Increased opportunities to recruit (including apprentices) and increased workforce

A donut chart with a pink border and a white center. The number '86%' is written in black in the center of the donut.

For most (86%) survey respondents, their work on these programmes had increased their opportunities to recruit new staff and increase their workforce. Most survey respondents reported that it had allowed them to recruit additional employees (71%) and take on more apprentices and trainees (64%). For 43% of respondents, these programmes enabled them to recruit employees with different skill sets and 29% said it had improved their ability to recruit and retain staff in general.

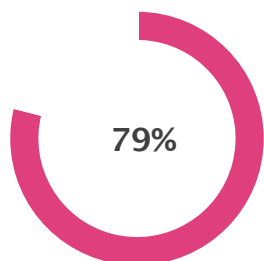
Has being involved affected your workforce or recruitment?



One respondent, however, felt that their involvement hadn’t had as big an effect on their workforce as they expected, commenting:

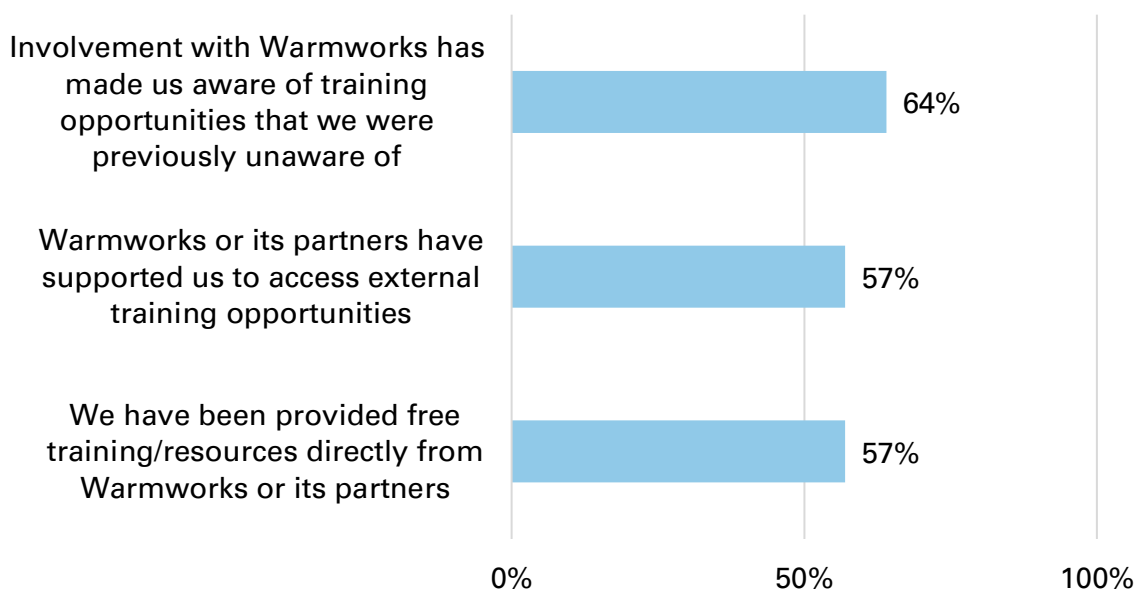
“We thought we would have grown more as a business being involved with Warmworks.”

Increased access to (free) training resources

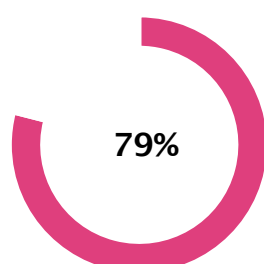


The majority of survey respondents (79%) stated that being involved with these contracts had positively impacted training at their business in some way. 57% received free training and resources directly from Warmworks or its partners. Beyond this, most also reported that Warmworks made them aware of other external training opportunities (64%) and/or helped them to access these (57%).

Has being involved with these contracts had any impact on training for your business?



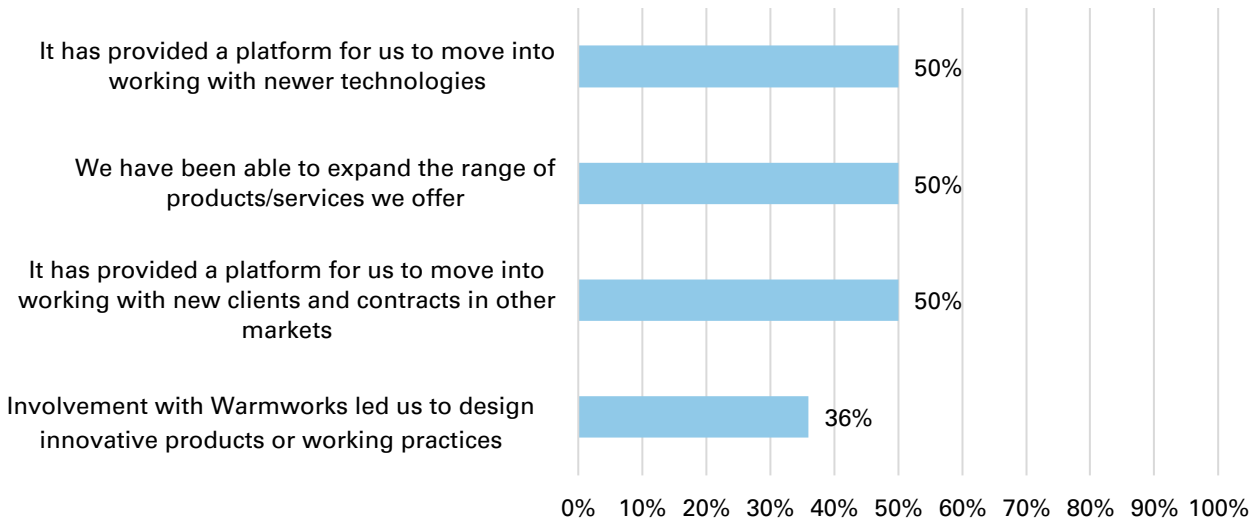
Increased opportunities to diversify business through new technologies



For most supply chain respondents (79%), Warmworks provided them with opportunities to diversify their business. For 50% of respondents, their work on these programmes was a platform for working with newer technologies and new clients.

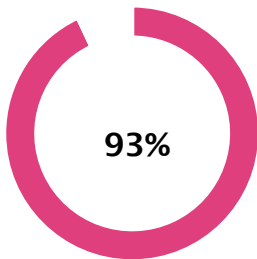
It also provided an opportunity to expand the range of services they offer. For 36% of respondents, their work on these programmes led to them developing new products or working practices.

Have you been able to diversify your business as a result of involvement with these contracts?



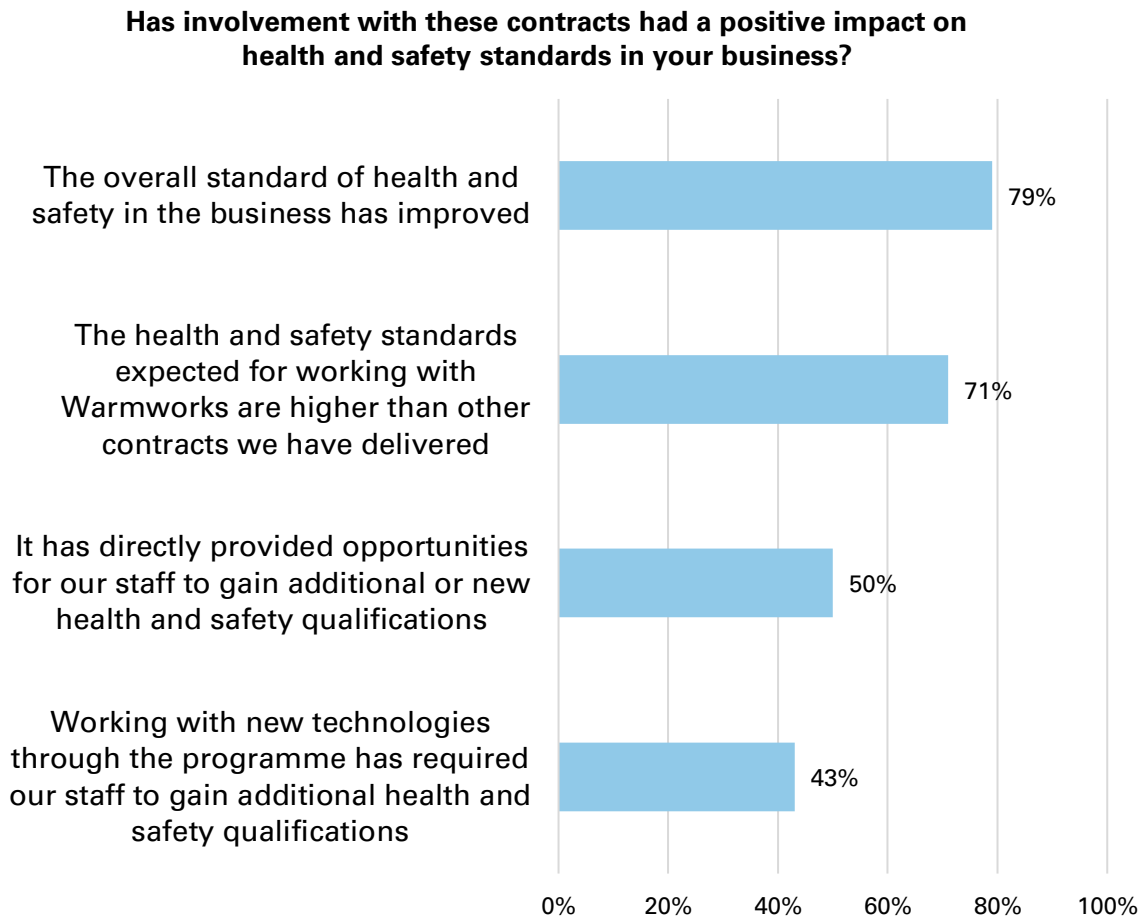
“Working with Warmworks has certainly helped us to develop our quality management systems and to embrace technology for assisting us with the many different forms needed for every job we do.”

Improved quality and health and safety standards



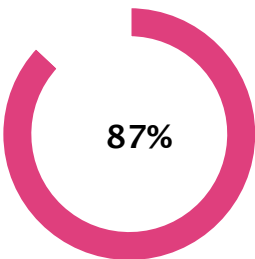
Almost all (93%) of survey respondents said that their involvement with these programmes had a positive impact on health and safety standards at their business. For 79%, their overall standard of health and safety had improved and 71% stated that health and safety standards for work on these programmes was higher than for other contracts.

Involvement with these programmes provided opportunities to gain health and safety qualifications for half of survey respondents (50%), and 43% stated that they had been required to get new health and safety qualifications as a result of working with new technologies on these programmes.



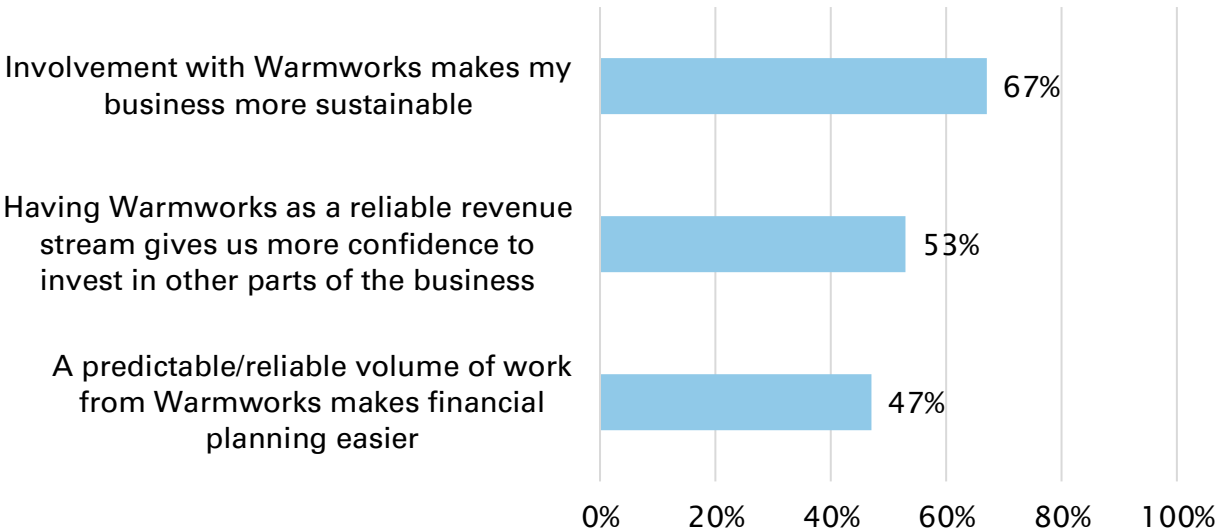
Medium-term Outcomes

Increased financial security and improved sustainability of the business



Involvement with these programmes provided most of the survey respondents (88%) with increased financial security. They reported that this was because it made their business more sustainable (67%), provided a reliable revenue stream (53%), and a predictable volume of work (47%).

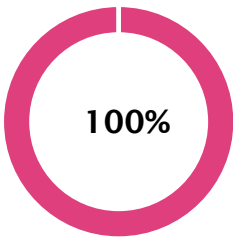
Has involvement with these contracts made a difference to the financial security of your business?



One respondent summarised the impact these programmes have had on their business, stating:

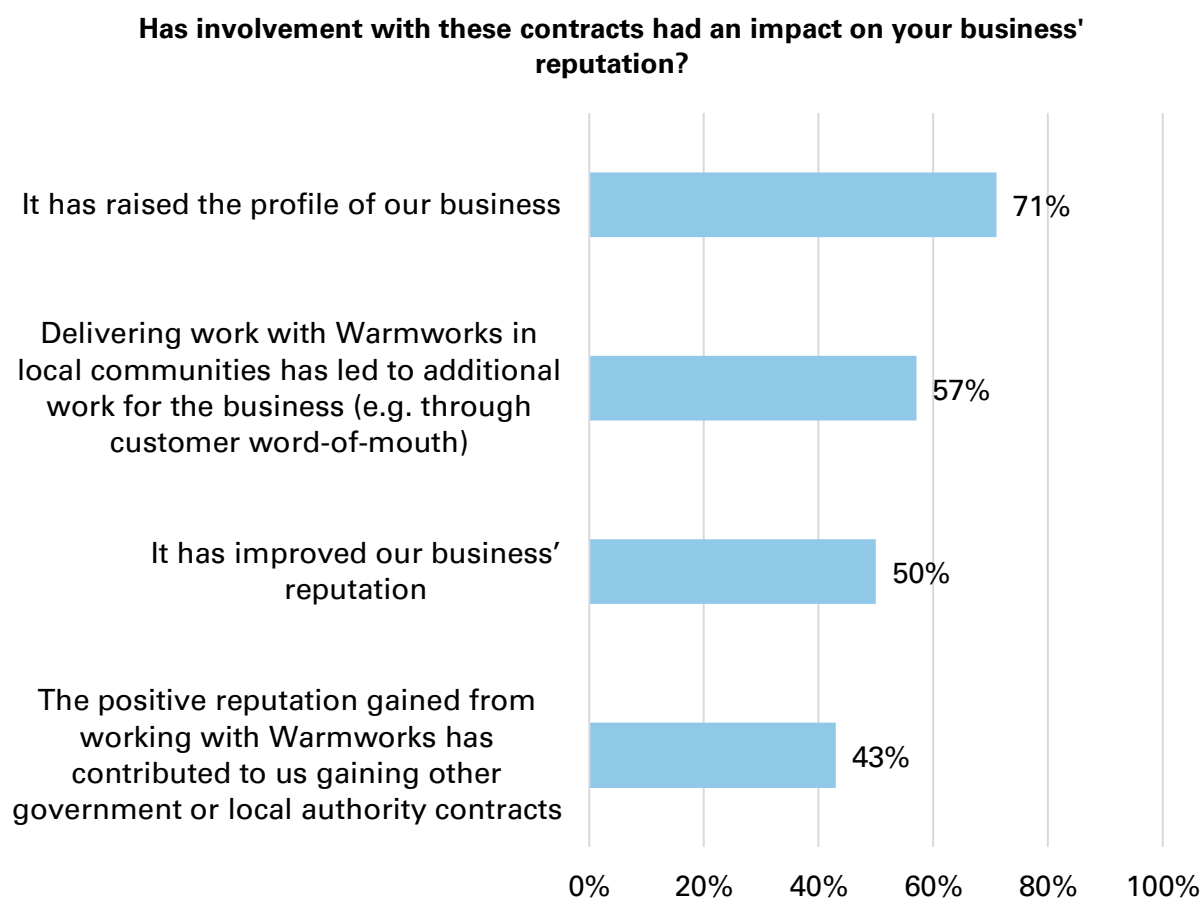
“Warmworks has helped us to grow a sustainable business.”

Improved reputation, leading to further opportunities to increase revenue



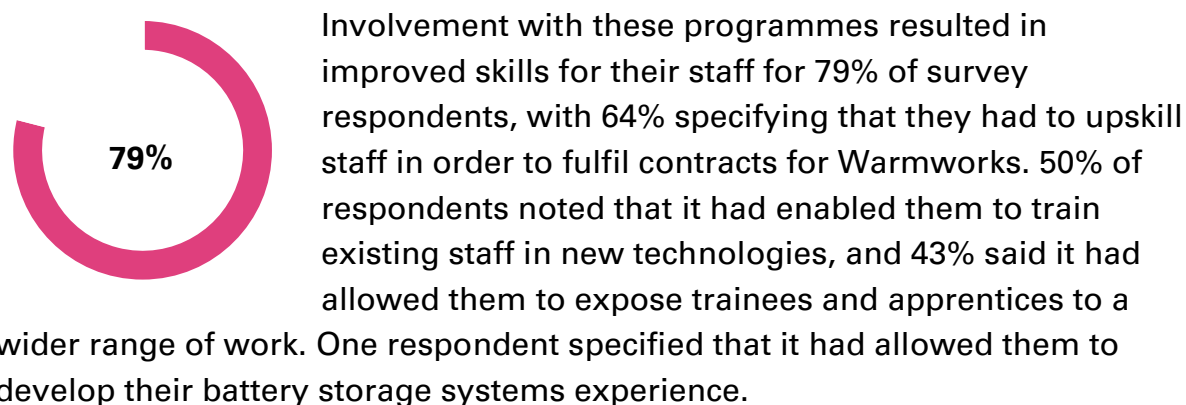
All of those who responded to the supply chain survey (100%) reported that their involvement with this work had positively impacted their business’s reputation. 50% stated that it had directly improved their reputation, while 71% said it had helped to raise the profile of their business.

For over half, this translated into further opportunities, either through additional work in their local communities (57%) or contributing to their ability to gain other government or local authority contracts (43%).

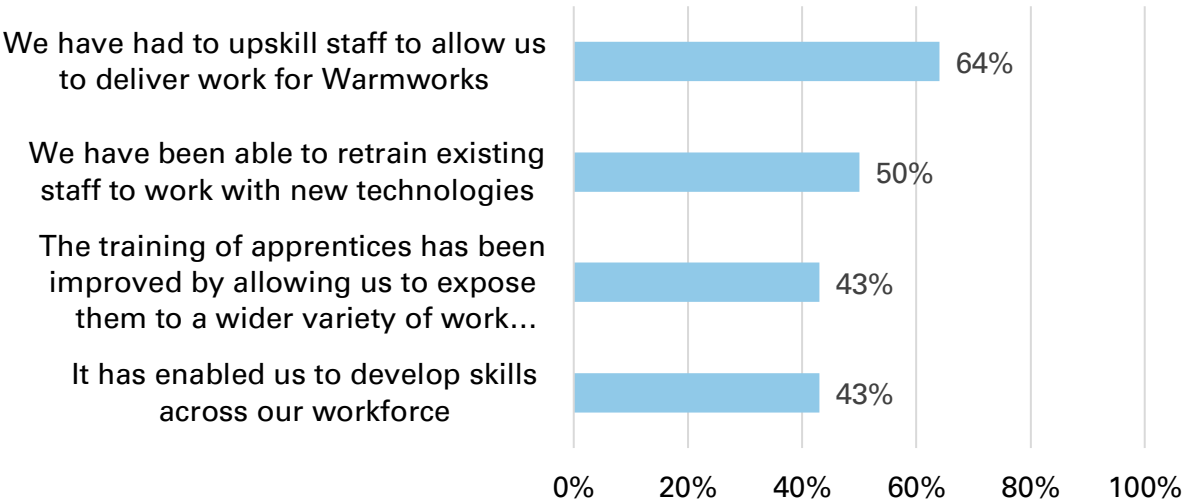


However, one respondent commented that their involvement with these contracts had also led to an increase in negative reviews for their business, so there were some negative impacts on their business's reputation in addition to the positives.

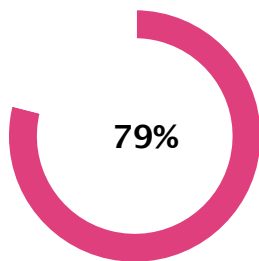
Improved skills for workforce



Has being involved with these contracts had any impact on skills for your business?



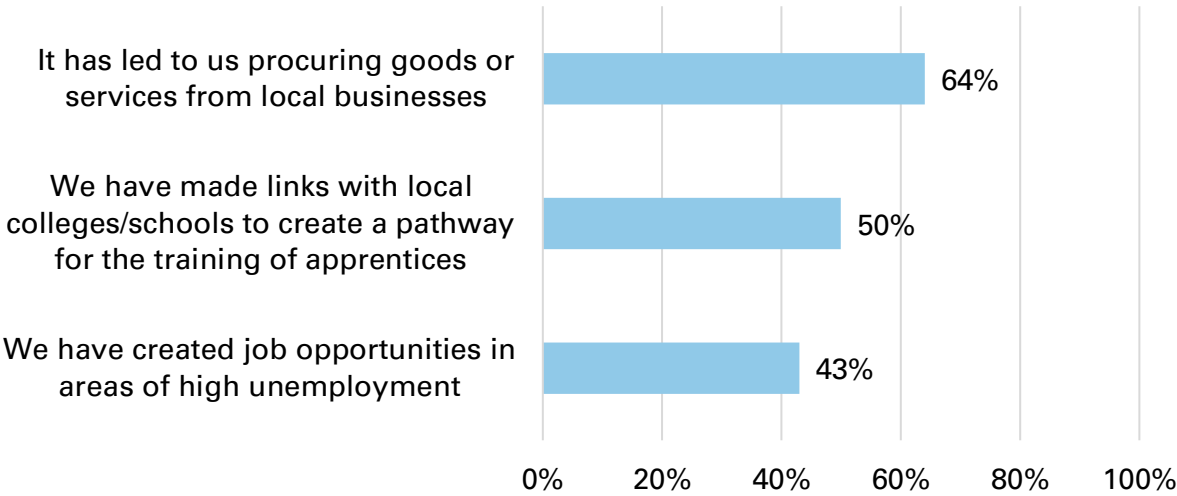
Greater and sustained contribution to local economies



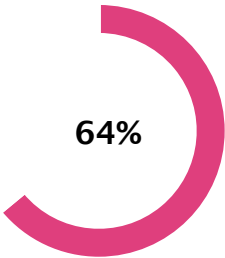
Beyond the direct effects on their business, 79% of supply chain survey respondents also reported that, through their work with these programmes, there have been some positive effects on their contributions to local economies.

This included through procuring goods and services from local businesses (64%), making training links with local schools and colleges (50%) and creating job opportunities, particularly in high areas of unemployment (43%).

Has your involvement with these contracts had knock-on effects for the local economies in which you work?

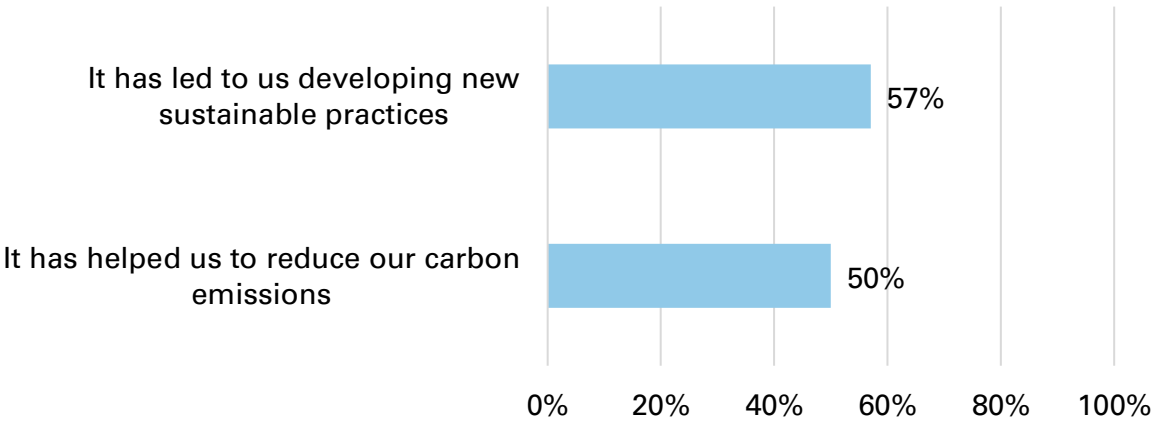


Sustainability and reduced emissions



Over half of survey respondents (64%) stated that their work on these programmes had an effect on their business’s environmental impact. For 57%, it had led to them developing new sustainable practices in their operations, and for 50%, it had helped them to reduce their carbon emissions.

Has your work with these contracts had any effect on your environmental impact as a business?



Additional responses provided by two respondents would suggest that for those whose involvement with this work didn’t affect their environmental impact, this was because they were already implementing sustainable practices in their operations.

“We were already adopting environmental practices as far as commercially viable.”

“This has always been a required standard we have held for BSI.”

Challenges and Improvements

Though there were no major or fundamental issues identified, supply chain survey respondents did highlight some areas of challenge and where there was potential for improvement.

The main challenge noted by survey respondents was that the workload from Warmworks could sometimes be inconsistent, which led to some difficulties in business management and planning. They noted a desire for more consistent workstreams throughout the year, and one suggested that this could be helped by government funders advertising their programmes more so that customers are aware of the different schemes.

“The times where the workload just stops and no explanation makes it difficult to manage staff levels.”

“Difficulty meeting demand because the work has not been consistent.”

A couple of respondents also noted some challenges with customer complaints and “no-shows”, feeling that there could be more robust terms or disclaimers put in place to resolve any difficulties fairly for all parties.

“Terms added to protect installers & Warmworks from customer no shows for surveys or installations... Disclaimers where signed are ignored, and installers are left with most of the costs. Basically, a more robust disclaimer that can actually be enforced is needed.”

Finally, one respondent highlighted that additional free training would be of benefit, specifically health and safety training for working at heights, and asbestos awareness, as Warmworks are their only clients who require annual refresher training for this.

Overall Comments

Overall, supply chain partners who responded to the survey were very positive about their partnership with Warmworks and the positive impacts created for their business, for customers, and for the environment.

“We love working with Warmworks and this contract. They are great to deal with, very fair and always happy to help.”

“Overall Warmworks has improved my business across all metrics. From compliance, quality, processes, growth and overall reputation. But the payment terms and weekly payments with no retentions is by a factor of at least 10 better than anything else. Nobody else can compete with this that I have experienced.”

“100% feel good factor knowing we are part of this project making people’s lives happier.”

7. Outcomes for other Stakeholders

Though customers and the supply chain are the primary beneficiaries of the services provided on these programmes – and thus were the only ones consulted during this evaluation – there are also some wider impacts for other groups and organisations that were identified.

Outcomes for Landlords/Housing Associations

Warmer, safer and less damp properties will benefit landlords and housing associations in addition to customers, with less maintenance required and **increased ability to rent out** their properties. Tenants will also be **happier** and are likely to have a more positive relationship with the landlord as a result, leading to **more stable tenancies** and an **improved reputation**.

The evaluation found that these programmes **improved the SAP rating** for over 95% of properties, which will contribute to landlords and housing associations better complying with regulations.

Outcomes for Training & Education Providers and Local Workers

Half of supply chain survey respondents stated that these programmes had enabled them to make training links with local schools and colleges, which provides a **greater number of training opportunities** for their students. Supply chain organisations working on these programmes also **created job opportunities** and opportunities for **skills development** in their local areas. Warmworks ensures that all of its staff and those within its supply chain are paid the real living wage, so this may provide **increased income** for some workers.

Outcomes for the Government

The evidence gathered through this evaluation demonstrates a clear link between energy efficiency improvements and positive health outcomes for customers. Almost three quarters (73%) of customers surveyed reported that the services provided under these programmes had improved their health

and/or wellbeing, with 48% experiencing reduced stress about heating or energy issues, and 28% reporting improvements to existing health conditions.

These findings are consistent with a well-established body of evidence on the relationship between cold, poorly heated homes and ill health.

For example, Public Health Scotland's *Healthy Housing for Scotland* briefing paper⁷ identifies cold and damp housing as a direct contributor to poorer physical and mental health outcomes, particularly for vulnerable groups including older people, disabled people, and those on low incomes.

The health outcomes reported by customers – reduced respiratory symptoms, improved mental health, better sleep, reduced stress and improved management of long-term conditions – represent exactly the types of health improvements that the wider evidence base predicts from warmer, better-insulated homes.

The SROI Impact Map captures these benefits in relation to both their value to individuals and their role in **reducing demand on public health services**.

Together, these health-related proxy values account for around 20% of the total impact, representing a material component of the overall social value generated by these programmes and reflecting energy efficiency programmes' contribution to improving health outcomes.

Furthermore, the job and training opportunities provided to local people contribute to a **reduction in benefit costs** and **stronger local economies**. The improved efficiency of household energy systems also results in reduced fuel costs to customers, contributing to **reduced levels of fuel poverty** and a **reduction in carbon emissions**, which will continue over time, working towards both government targets and an improved environment.

⁷ <https://publichealthscotland.scot/media/7483/healthy-housing-for-scotland.pdf>

8. Social Return on Investment

This section examines the social and community value generated by the programmes, in line with SROI guidelines and principles.

About SROI

SROI is a framework for developing a more complete picture of the social, economic, and environmental impact of activities, projects, programmes, and policies.

Every day, our actions and activities create and destroy value; they change the world around us. Although the value we create goes far beyond what can be captured in financial terms, this is, for the most part, the only type of value that is measured and accounted for.

SROI uses the techniques developed in economic cost-benefit analysis to calculate a ratio of return for intangible benefits.

The key principle of SROI is that it measures the changes that are most relevant to the people experiencing them. The main difference with other methods of social impact measurement is SROI puts a monetary value on these impacts and calculates a ratio of return for those organisations contributing to create change.

Social Value Lab are trained SROI practitioners and members of the Institute for Social Value (formerly Social Value UK)⁸.

We have produced an SROI calculation based on data for financial years 2023/24 and 2024/25.

Stakeholders

The main groups of stakeholders were defined at the outset, beginning with Theory of Change workshop:

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- Customers
 - Landlords
-

⁸ <https://socialvalueuk.org/standards-and-guidance/>

-
- Supply chain
 - Local workers and training and education providers
 - Government
-

Outcomes and Financial Proxies

We then linked the outcomes emerging from surveys and programme data with a set of proxy measures. This allows us to estimate the total number of households, people, or organisations experiencing each individual outcome.

Key considerations for SROI

The SROI process involves some subjective decisions, which are guided by knowledge of the project, how it works in practice, and the evidence we have been able to collect. Among the key principles of SROI are the need to test our assumptions and avoid over-claiming, as an overly positive assessment of the type, quantity, or duration of impacts can easily be challenged.

Among the most important is deciding how long we think benefits will last. We have applied a consistent approach to that developed for the previous impact evaluation of Warmer Homes Scotland, with the direct implications of retrofit measures predicted to last for five years, with most of the additional benefits for households, sector, and wider economy forecast to last three years.

The factors we have to consider are referred to as 'deflators' in SROI guidance, and are used to bring values down to reflect different unintended or unplanned impacts:

-
- **Leakage** – how much of an outcome might have delivered impacts outside the area intended?
 - **Deadweight** – how much of the outcome might have been achieved without intervention?
 - **Attribution** – what proportion of the outcome might be attributed to others because their activity contributed to it?
-

-
- **Displacement** – how much of the outcome has displaced other activities?
 - **Drop Off** – how much of the outcome will diminish over time?
-

In addition to drop-off (duration), the key decisions for these programmes are deadweight and attribution. These decisions are guided by evidence gathered from surveys and lessons from previous and similar studies.

Deadweight

Deadweight is a measure to assess what part of the outcomes would have happened anyway, even if the activity or intervention had not taken place. For this report, we have defined the deadweight as what would have happened without these programmes. For customers, the deadweight is calculated on the basis of responses to the survey, which asked whether respondents would have been able to achieve similar improvements without the support they received. 93% of respondents indicated that they would not have been able to make these improvements on their own, resulting in a deadweight of 7%. For landlords, we have used the same deadweight.

For the supply chain and local workers, we have estimated a deadweight of 10%, to reflect that even without these programmes, some businesses may have experienced a degree of organic growth through other contracts and market conditions. However, it should be noted that for many of the smaller contractors within the supply chain, the programmes represent a significant proportion of their workload.

The outcomes for government are directly derived from the relevant customer and supply chain outcomes, and therefore, we have used the corresponding deadweight from customers and the supply chain.

Attribution

Customers were asked who else had helped them with the changes they had described. The question is formulated in a different way to the research undertaken for the previous evaluation of the WHS programme, so we have used the same attribution figure of 9% for consistency. We have used the same attribution for landlords.

The outcomes of the supply chain are fully attributable to the programmes in scope, but to be conservative, we have applied an attribution of 5%.

The outcomes for government are directly derived from the relevant customer and supply chain outcomes, and therefore, we have used the corresponding attribution from customers and the supply chain.

The following table displays the attribution and deadweight percentages used in our SROI assessment.

TABLE 8.1: ATTRIBUTION AND DEADWEIGHT

Stakeholder	Attributio	Deadweight
Customers	9%	7%
Landlords	9%	7%
Supply chain	5%	10%
Local workers	5%	10%
NHS	9%	7%
Government	5/9%	7/10%

Drop Off

For outcomes that last longer than one year, it is likely that their effects will decline over time. This is due to the growing influence of other factors and changes, making results less directly attributable to the original intervention. This is calculated by deducting a straight percentage from the outcome each year. For outcomes lasting longer than one year, we have assumed an annual drop-off percentage of 33%.

It is important to note that drop-off does not reflect the physical durability of the measures installed – there is strong evidence that insulation and heating systems continue to function effectively for 15–30 years or more. Rather, it reflects the increasing difficulty of attributing the outcomes experienced by households to the original intervention as time passes. Over the years following an installation, households may move, property ownership may change, energy markets fluctuate, occupants' circumstances and behaviours evolve, and the wider housing stock improves through other programmes and

policy interventions. Each of these factors weakens the direct causal link between the programme and the outcomes it initially generated.

The 33% annual drop-off rate is the most commonly used assumption in UK SROI practice and is consistent with the approach taken in the previous evaluation of the Warmer Homes Scotland programme in 2020/21. It represents a conservative position, in line with the SROI principle of avoiding over-claiming. We explore alternative drop-off assumptions in the sensitivity assessment below.

Materiality of Impact

In our analysis of attribution and deadweight, we have found no outcomes where attribution and deadweight or a combination of these two has led to an impact that is not relevant or significant, and therefore, not material.

Impact

The impact of these programmes is calculated by the quantity of the outcomes multiplied by the value of the financial proxy, minus attribution, deadweight, and drop-off (see Impact map, Appendix A).

SROI Ratio

The Social Return value is expressed as a ratio of return and is calculated by dividing the value of the impact by the value of the investment. However, the value of the impact is corrected to the Present Value (PV) to reflect the present-day value of benefits projected into the future.

$$\text{SROI} = \frac{\text{Total Present Value}}{\text{Total Input}}$$

Discounting is applied to those values that have been projected for longer than 1 year. The interest rate used to discount the value of future benefits in this case is 3.5%⁹.

⁹ This is based on the UK Government Green Book recommended discount rate for public funds.

In our calculations¹⁰ of the impacts, we have established the total of all impacts of the programme at £430,310,738. This represents the total value created.

The Total Present Value for the programme, at a discount rate of 3.5%, is £403,265,269. This represents the total value created, discounted by the future earning capacity of this figure.

The Net Present Value, the Total Present Value minus the total of all investments (£174,650,079), is £228,615,190. This amount represents the total extra value created.

This gives an SROI ratio of $\text{£}403,265,269 / \text{£}174,650,079 = \textbf{£}2.31: \textbf{£}1$. This means for every £1 of investment, £2.31 of social value is created.

Comparators

We have identified some relevant comparator projects:

-
- Warmer Homes Scotland 1 (SVL) – **2.86:1**
 - New Barracks (Salix/ARUP) **1.58:1**¹¹
 - Railway Housing Association (SVL) – **2.26:1**
 - Vineburgh Improvements for Cunninghame (SVL) – **3.25:1**
-

A very similar exercise was undertaken for the first phase of the Warmer Homes Scotland programme. Costs have increased significantly since 2020/21, from £12m to £175m (a 724% increase). This means an estimated cost of £7.3k per customer for WHS1 and £12.7k per customer for WHS2, though the overall social value generated for this group has increased from £51m to £329m (548%).

Social and community programmes will often generate much higher SROI ratios (e.g. 5:1 or 6:1) as they have much lower costs than retrofit or other physical regeneration projects.

¹⁰ All amounts are rounded to Pound Sterling.

¹¹ https://socialvalueuk.org/wp-content/uploads/2016/03/Salix_SROI_Post_Retrofit_2012.pdf

Sensitivity Assessment

The results presented in this evaluation are based on assumptions and estimates according to available evidence. A key principle of SROI is to test these assumptions and avoid over-claiming, as an overly positive assessment of the type, quantity, or duration of impacts can be challenged.

We have therefore undertaken a sensitivity analysis to explore how the SROI ratio responds to changes in the key assumptions underpinning the base case calculation.

TABLE 8.2: SENSITIVITY ANALYSIS

Scenario	Change from Base Case	SROI Ratio	Rationale for testing
Base case	-	2.31:1	Conservative assumptions applied consistently across all outcome types, aligned with the previous WHS evaluation.
Increased deadweight	20% deadweight applied across all outcomes	1.99:1	Tests the possibility that a greater proportion of households would have found alternative ways to retrofit or achieve similar improvements without the programme.
Differentiated drop-off	10% annual drop-off for physical/property outcomes; 33% retained for all other outcomes	2.70:1	Reflects the evidence that physical improvements to buildings can have operational lifespans of 15–30 years or more. Behavioural, knowledge, and wellbeing outcomes remain at 33% as they are more susceptible to change over time.
Differentiated drop-off with extended duration	10% annual drop-off and 25-year duration for physical/property outcomes; all other outcomes unchanged	3.27:1	Extends the previous scenario by aligning the duration of physical/property outcomes within the range of expected measure lifespans.
Extended duration	25-year duration for physical/property outcomes; drop-off unchanged at 33% for all outcomes	2.40:1	Tests the effect of longer duration in isolation, without adjusting drop-off rates.

Reduced drop-off (all outcomes)	10% annual drop-off applied across all outcomes	3.13:1	Tests the effect of a substantially lower drop-off rate applied uniformly, without differentiating by outcome type.
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The sensitivity range across all scenarios is **1.99:1 to 3.27:1**. This implies that for every £1 of investment, between £1.99 and £3.27 of social value is created. In all scenarios, the social value generated by the programmes exceeds the input costs by a substantial margin.

9. Conclusions and Recommendations

Conclusions

Customers

- **Warmer, less damp homes** – The services provided under these programmes led to most customers having a warmer, less damp home. This had significant knock-on effects, with improvements to customers' physical and mental health and, for some, improvements to their self-esteem, social activity, and pride in their home.
- **Improved, more efficient heating systems** – The improvements resulted in customers feeling safer and more in control of their heating systems. It also had positive impacts for the building, including improved SAP ratings and an increase in value of the property.
- **Decreased fuel costs** – Though the positive impacts were somewhat mitigated by rising fuel costs and the increased cost of living, most customers still experienced a decrease in their fuel costs as a result of the service received under these programmes. This has also helped to improve some customers' wider financial situation, allowing them to use the savings made on heating for other bills, paying off debts, and other expenses. Customers commented that this had helped to give them peace of mind and reduce stress.
- **Reduced carbon emissions** – The physical improvements to heating systems and the fabric of properties, combined with the increased knowledge provided to customers about how to use their heating systems efficiently, resulted in households reducing their carbon emissions following Warmworks' involvement.

Supply Chain

- **Increased revenue and sustainability** – Involvement with the programmes in scope not only provided supply chain businesses with direct revenue streams, but it also helped them to be more secure and

sustainable as a result of the reliable source of work provided by Warmworks and by opening up more opportunities elsewhere.

- **Improvements for the workforce** – Supply chain businesses reported that their work with Warmworks had enabled them to recruit more staff and take on more apprentices. Additionally, Warmworks provided opportunities for staff to access training, upskill, and diversify their areas of expertise, helping to improve their business and what they can offer.
- **Improvements to local economies and the environment** – Through their work with these programmes, supply chain businesses also reported that they had been able to contribute more to their local economies by creating jobs and training links with schools and colleges. For some, it also led to them adopting more environmentally friendly practices.

Wider Impacts

The positive impacts from the work completed under these programmes for customers and the supply chain also have resulting impacts for other groups and the public purse. For example, landlords and housing associations benefit from the physical upgrades to their properties, and this is also likely to lead to improved relationships with their tenants. The improvements to physical and mental health experienced by customers contribute to a reduction in health costs for the public purse, and the increased jobs and training opportunities contribute to reduced benefit costs.

Social Return on Investment

The analysis estimates that the programmes in scope in this period generated total impacts valued at £430 million, with a Total Present Value (discounted at 3.5%) of £403 million. After subtracting the total investment of £175 million, the Net Present Value is calculated at £229 million. The resulting SROI ratio of 2.31:1 indicates that for every £1 invested, £2.31 of social value was created, reflecting significant benefits to households, the retrofit sector, the wider economy, the environment, and public services.

We have also undertaken some sensitivity analysis. The overall SROI ratio falls within the range of 1.99:1 and 3.27:1 depending on the specific assumptions made.

Recommendations

A few recommendations to improve the service offered under these programmes have been identified and are listed below. However, it should be noted that the services provided were, in general, very highly valued by customers and the supply chain and are providing significant positive impacts.

- Ensure that communication with customers about what services they will receive and what preparation work will be required is clear, particularly if customers will be expected to carry out some preparation or follow-up work themselves or at their own expense. This could be facilitated by having one point of contact for customers, which remains consistent throughout the process.
- Implement follow-up visits or calls to ensure that customers understand and are confident in how to use their heating systems and are aware of what follow-up or referral support is available. This will also help to identify if there are any issues at an earlier stage, allowing for them to be resolved more quickly.
- Investigate ways in which more awareness could be raised about the programmes in scope to ensure that those who are entitled to support are aware of this and know how to access it. Some customers highlighted that they are often unsure of whether offers are legitimate or a scam, so this should be a key consideration in any future marketing to ensure that customers know the offer is genuine.

To view the report online and access the appendix, go to

<https://www.warmworks.co.uk/2026/05/26/social-value-report-2026/>

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