



Low Carbon Business Support Report

A Summative
Assessment of the
ERDF Funded Low
Carbon Business
Support Project.

A Final Report
for Sheffield City
Council
May 2023



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EXECUTIVE SUMMARY

The Low Carbon Business Support Programme is part-funded by European Regional Development Fund (ERDF) and led by Sheffield City Council. This executive summary presents the evaluation findings and recommendations.

PROGRAMME CONTEXT AND EVALUATION INTRODUCTION

The Low Carbon Business Support programme's aim was to promote energy efficiency and renewable energy use in SMEs in South Yorkshire. The programme provided support to help identify, fund and implement energy efficiency improvements for SMEs and helped reduce the barriers to decreasing their energy consumption and carbon emissions.

This ERDF-compliant evaluation aims to assess the success of the Low Carbon Business Support programme in meeting its objectives and delivering its targets. The evaluation used a combination of desk research, project output data, an SME survey, and stakeholder interviews to assess performance and impacts.

BUSINESS SURVEY RESULTS

Business perceptions of the programme are positive, and the vast majority have reported positive impacts, including commercial benefits and increased awareness of energy reduction measures and aspirations to reduce carbon emissions.

Some SMEs who responded to the survey have only recently completed their energy reduction projects. This is important as it means they will not yet have seen the benefits reflected in their energy bills and will be underreporting the impact of the programme.

Key messages from the business survey are as follows.

Overall perceptions:

- Businesses who responded to the survey were highly satisfied with the quality of the support they received, over four fifths were very satisfied or satisfied (50, 85%).
- 91% of respondents rated the quality of the auditor engagement whilst arranging the site visit as excellent or good.
- Customer experience of the programme was rated positively by 83% of survey respondents.

Commercial benefits:

- Grant recipients found their investments into energy efficiency technologies helped them decrease their energy usage (22, 73%). Due to reporting timescales, not all recipients have seen the benefits reflected in their energy bills.

- Approximately three quarters (43, 73%) of businesses believe they have already or will achieve savings in their carbon emissions as a result of the project. The other businesses have not yet seen the benefits reflected in their energy usage data.
- 30% of businesses report they have or are likely to safeguard jobs following support.

Awareness and aspirations:

- Business' understanding of their carbon footprint was mixed before receiving the audit. However, after the audit most businesses felt their understanding had improved.
- Almost half of the businesses surveyed (29, 49%) aspire to achieve net zero in the future.

Future barriers:

- Finance remains a barrier. Businesses responded that the greatest barrier to implementing carbon reduction measures, both before (80%) and after (82%) the programme, was a lack of funding.

STAKEHOLDER PERSPECTIVES

Stakeholder perspectives on the Low Carbon Business Programme are summarised below. Stakeholders were positive about the programme delivery and its achievements, whilst also highlighting key lessons for the future. Project timescales were challenging, and stakeholders recognised that this was outside the control of the project management team.

DELIVERY STRENGTHS

Programme delivery was, on the whole, viewed positively by stakeholders. Particular strengths were project management and the expertise of advisors.

- *Project management was viewed as impressive.* The programme manager received praise with references made to their communication and their positive, solution-oriented and flexible approach.
- *The management team embraced reflective learning.* The strong programme communication led to continued iterative programme improvements.
- *Low Carbon Advisors understood commercial pressures facing businesses.* The advisors shaped programme delivery around a clear understanding of the operational difficulties facing businesses.
- *Low Carbon Advisors helped businesses to improve their understanding of potential energy and carbon savings and supported engagement with the audit reports.* Participants valued the advisors' use of business terminology to build cost and energy saving understanding.

PROGRAMME SUCCESSES

Stakeholders report that the programme has made significant impact in terms of reducing carbon emissions and raising awareness amongst SMEs:

- *Projects have delivered sizeable carbon reductions:* the programme has delivered tCO₂e reductions above its targets despite the challenges presented below.
- *SMEs have valued the audit reports as decision making tools:* The energy audits are a useful tool to assist businesses in understanding how to prioritise energy efficiency projects.
- *SMEs have the information needed to continue making savings:* The businesses that received an audit increased their awareness of potential energy saving options and their payback period.

DELIVERY CHALLENGES

The most significant challenge was the short timeframe for delivery. This created pressure on timescales for each stage of the programme implementation and delivery.

- Job adverts for advisors garnered little response from people with sufficient low carbon experience, however there was not the time available to pursue multiple rounds of recruitment.
- The time taken to complete the energy audits varied depending on the extent of data available and scope of work required, limiting the number of projects which could be designed and delivered within the timescales.
- Ongoing global supply chain and national labour shortages meant that participants struggled to complete projects within the programme timeframes.
- The timescale of the programme means that the results and benefits of energy efficient interventions have not all been visible or reportable during the delivery programme.

COVID-19 further constrained the timescales:

- The Covid-19 pandemic and associated lockdowns affected the programme timescales. Staff time was redirected to support the COVID business grants process during this period.
- Covid related staff redeployment meant that signing the contract with CLG (now DLUHC) was delayed by a year. This had a significant impact on the effective programme delivery timeframe.

LESSONS LEARNED

Key lessons from the evaluation are:

- *Limited delivery timeframe, exacerbated by COVID-19,* reduced the potential scale of the programme. For example, to manage the expectations of SMEs and avoid overcommitting, the programme was not promoted, which reduced uptake.
- *Procuring audits via a mini-competition call-off process was onerous* for the programme management team and audit suppliers. The mini-competition process took time to manage, slowing down the audit process, and created uncertainty amongst suppliers.
- *The audit approach could be more flexible* to accommodate businesses that are at different stages in their carbon reduction journey, however *the audit provides a resource for the SMEs to continue to use in the future.*

- *Having expert advice at different stages is important* however, at times stakeholders felt that this resulted in a lack of continuity between different steps of the programme.
- *Learning whilst doing was important*, for example improving the audit process during the programme.
- *The legacy created for SMEs is derived from providing a whole set of recommendations*, not just a one-off grant.

PERFORMANCE, ADDED VALUE AND ECONOMIC IMPACT

PERFORMANCE

The challenges resulting from the short programme timescales, compounded by the impact of Covid-19 limited the number of SMEs who could be awarded grants for low carbon projects, as reflected in the project outputs below.

Impressively, despite not awarding grants to as many companies as hoped, the project was very successful at delivering impactful projects and significantly exceeded the Greenhouse Gas (GHG) emissions savings target. The level of private sector match funding for projects also demonstrates that SMEs have been enabled to coinvest in sizeable projects.

Progress against programme output targets:

- 70 enterprises have received grants for C2 (50% of the target 140).
- A reduction 580.54 tCO₂e of GHG has been achieved for C34 (129% of the target 450).
- £569,842 private sector match funding has been achieved for C6 (93% of the target £610,000).

Including those companies who have received grants, and those who didn't progress to that stage, 156 have received advice or support. This was not a contracted target however it demonstrates the reach of the programme.

ADDED VALUE

The strengths of the programme delivery model created added value for SMEs in addition to benefits already experienced and reported in the beneficiary survey. The three areas of added value are:

- More businesses have increased awareness of energy reduction measures, the effectiveness of different measures, and the associated payback periods, helping them to make commercial decisions in years to come.
- Low Carbon Advisors have signposted businesses to other avenues of funding support, which help SMEs deliver a pipeline of longer-term projects identified in the audits.
- Financial savings and improved business resilience will be achieved for the businesses that were successful in delivering projects, helping to secure or create jobs.

ECONOMIC IMPACT

The excellent performance in terms of reducing energy use and GHG emissions has created benefits and added value for businesses. Commercial benefits are seen through reduced energy bills and access to

supply chain opportunities helping them to safeguard or create jobs. This in turn creates economic impact.

An estimated economic impact of £9.1m¹ results in a benefit cost ratio (BCR) of 4.0:1 for the programme. This means each £1.00 of public investment will generate £4.00. This represents high value for money according to the DCLG Appraisal Guide² which states the value for money categories as based on the size of the BCR.

RECOMMENDATIONS

RECOMMENDATIONS

Based on the evaluation findings, Kada propose the following recommendations for consideration for programme delivery, programme design, and policy makers, in keeping with ERDF Summative Assessment guidelines.

Programme delivery

1. Streamline the diagnostic process by using a checklist to be completed by the business advisor.
2. Maintain a consistent client manager / point of contact for SMEs from diagnostic, through to audit report feedback and grant application.
3. Hiring business advisors as consultants rather than full-time employees may make recruitment easier, providing more resource for recommendations 1 and 2 above.
4. Introduce a follow-up assessment to see if the energy savings forecast in audit reports have been achieved.
5. A dedicated advisor support for each Local Authority Area would help to promote a more proportionate split of SMEs across the region.
6. Consistent attendance at Steering Group meetings would allow members to closely monitor performance in their respective areas and contribute to solutions to address any performance issues in a timely manner.

Programme design

7. Increase the timescales for programme delivery to reduce pressure on different project stages, and to allow time for benefits to be measured and projects followed-up.
8. Ensure experts/advisors are available/based in each local authority area to provide businesses with a local contact – similar to how Growth Managers operate for some Growth Hubs. Regular meetings/knowledge sharing between advisors can ensure they feel part of a team despite being based around the region.

¹ Net Present Value (NPV) of Gross Value Added (GVA) resulting from jobs created or safeguarded over three years.

² Department for Communities and Local Government [Appraisal Guide](#), December 2016, p 2.56

9. Introduce flexibility for direct grant awards with no audit needed if companies already know what needs to happen and can evidence this. Not having such a formulaic audit process could be possible in post-ERDF funding.
10. Consider different grant levels to help balance a desire to help as many SMEs as possible against potential impact or value for money. For example, selection criteria such as minimum energy spend, or minimum energy usage have potential to create bigger energy savings, making a grant award better value for money. However, to help all SMEs transition to net zero will require smaller energy users to invest in energy reduction measures even if payback periods are longer. Different grant levels could mean some smaller grants do not have selection criteria, whilst criteria are used for higher-value grants.
11. Different grant levels also mean larger and more ambitious projects can be funded where businesses have more funding to provide as match. This should aim to fill gaps in regional support rather than duplicate other programmes (see recommendation 14).
12. Streamline energy audit commissioning by using a simplified call-off process, removing the need for the mini-competition process.

Policy makers

13. Using sustainability experts to advise on the best factors and metrics to use for measuring carbon emissions or energy consumption will ensure best practice and global standards are followed.
14. Provide advice and grants for a wider carbon reduction and sustainability remit. For example, reducing carbon emissions from resource use, waste, company transport, and procurement which all contribute to a business' carbon footprint.
15. At a regional level, work with projects like Low Carbon Business Support, to better cross-refer SMEs between the range of specialist and general programmes run by each local authority and SYMCA. A business may apply to the Low Carbon Business Support Programme who has other business needs identified in the diagnostic, and they would benefit from being sign-posted to other programmes in the region.
16. At a regional level, design carbon reduction programmes so that they do not directly duplicate one another, and instead provide different offers to SMEs. Programmes should sign-post SMEs to one another, so that the SME receives the most appropriate support.

Low Carbon Business Support Programme in Numbers

Project Impact



580.54
tonnes of
greenhouse gas
savings (tCO₂e).



61 FTE net
jobs created/
safeguarded
(49 direct and
12 indirect).



£9.1m
economic
impact (net
Gross Value
Added).

Business Benefits (Commercial)



73%
of businesses have
or will achieve
carbon savings
(tCO₂e).



64%
of businesses
have or will
achieve
financial
savings.



67%
of businesses
have secured
new tenders due
to having new
sustainability/
low carbon
credentials.

Business Benefits (Knowledge)



87%
of businesses
have an improved
understanding
of their carbon
footprint.



74%
of businesses
have improved
their ability to
monitor and
control energy
costs.



82%
of businesses
have an
improved
understanding
of how to
achieve energy
efficiencies.

Business Benefits (Satisfaction and Aspirations)



85% of businesses
were either 'Very
satisfied' or 'Satisfied'
with the programme's
support.



85%
of businesses aspire
to achieve net zero or
would consider doing
so in the future.

1 INTRODUCTION AND PROJECT CONTEXT

This chapter introduces the Low Carbon Business Support Programme. It discusses its aims, rationale, context and objectives and the evaluation approach.

1.1 PROJECT SUMMARY

The Low Carbon Business Support programme is run by Sheffield City Council and is funded under ERDF priority axis 4b “Promoting energy efficiency and renewable energy use in enterprises”. The project provides support helping to identify, fund and implement energy efficiency improvements within eligible businesses. SMEs receiving the support are helped to tackle the barriers to the introduction of efficiency measures/technologies that reduce energy consumption and carbon emissions.

Through the provision of an audit, which provides recommendations for low carbon improvements, and matched financial support, the programme: increases awareness and understanding of the benefits of and options for improving energy efficiency amongst SMEs; increases uptake of energy efficiency initiatives amongst SMEs; reduces carbon emissions, contributing to UK obligations and BEIS priorities in the Clean Growth Strategy; and reduces energy consumption, contributing to targets in the SCR Energy Strategy. In addition, it is anticipated that there is potential for the project to reduce outgoings for SMEs, improving competitiveness, resilience and productivity.

RATIONALE

The emerging findings from other city regions has shown successes for SMEs when a similar model of support has been applied to improve energy efficiency. Through the provision of audits SMEs are able to increase their understanding of their energy consumption. The accompanying combination of recommendations and match-funded grant support has prompted and increased take-up of improvements. Other city regions have also experienced additional unfunded improvements from SMEs after experiencing the benefits of the programmes – such as cost savings and improved productivity.

MARKET FAILURES

The Low Carbon Business Support Programme was designed to address the market failures which limit the ability of businesses in South Yorkshire to implement the suitable changes to reduce their carbon consumption. These market failures include: a lack of awareness of the climate emergency and understanding of how businesses can be impacted; a lack of awareness of the potential for improving energy efficiency or the means of doing so; and a lack of awareness of the benefits of improving energy efficiency.

There are multiple consultancy organisations which SMEs can use to improve their sustainability, however there are no public funded programmes within South Yorkshire. SMEs can find the costs of audits and efficiency measures prohibitively high. Although there is a network of business support grants in the region, they are not aimed specifically at reducing business’ carbon footprints, and do not include the ability to receive an audit. This programme hopes to address these failures by providing free audits,

advice and financial assistance to support interventions; it is hoped this will increase the potential for SMEs to reduce their carbon consumption.

1.2 STRATEGIC CONTEXT

LOCAL CONTEXT

The project's scope covers the South Yorkshire region, including the cities of Sheffield and Doncaster and major conurbations of Barnsley and Rotherham. The South Yorkshire Mayoral Combined Authority (SYMCA) have the ambitious plan to reach net zero by 2040, 10 years before the UK Government target. However, SYMCA estimate that up to 52,000 businesses in South Yorkshire are not actively trying to reduce their energy efficiency, and if collective goals are to be met then businesses will need to take action. All local authorities in South Yorkshire have now declared a climate emergency to highlight the issue of climate change and promote action for carbon emissions reduction.

Barnsley: The borough has two main goals, "Zero 40" will address the council's environmental performance and bring it to net zero by 2040. Whereas "Zero 45" is a more holistic approach to bring the entire borough to net zero by 2045.

Doncaster: The city has a set of 8 priorities that will be delivered within the next ten years. The top priority in this list is "Tackling Climate Change", which highlights the city's commitment to achieving this. The team have an ambitious target to achieve 85% net zero by 2030.

Rotherham: This council also has ambitious plans to reach net zero by 2030, with a wider plan to decarbonise Rotherham-wide by 2040. Their plans focus on Energy, Housing, Transport and Waste. Although, they acknowledge the council has a long way to go with engaging the public on this issue and influencing them to make suitable changes.

Sheffield: The city has a long-term ambition to tackle climate change, including ten key commitments for action. Their target is the most ambitious in the region, with a plan to become carbon neutral across the city by 2030.

These strategies point to the unique challenges of the region and specific areas for improvement including the need for future development of green technologies and innovation to make progress towards common growth and Net Zero goals.

UK GOVERNMENT

In 2019, the UK Government responded to the Paris Agreement by updating the Climate Change Act (2008) which committed the UK Government by law to net zero greenhouse gas emissions by 2050. This commitment had been preceded by their 2017 Clean Growth Strategy which details how the government intended to decarbonise all key economic sectors throughout the 2020s. The 2021 COP26 Conference concluded with almost 200 countries, including the UK, signing the Glasgow Climate Pact that committed signatories to the actions required to limit the rise in global temperatures by 1.5°C.

The UK Government's Build Back Better: Plan for Growth³ focused on investment in skills and innovation. The UK, the Plan noted, has a lower proportion of innovative businesses compared to other advanced economies and it aimed to support and incentivise creative ideas and technologies. The Plan suggested that entrepreneurs needed to be well prepared to benefit from innovation and gain the confidence to invest in developing innovative new products and services. It identified continued government support for the accelerated growth and access to finance of SMEs including start-ups and scale ups.

In July 2021 the Department of Business, Energy and Industrial Strategy (BEIS) published the UK Innovation Strategy⁴ highlighting the government's vision to make the UK a global hub for innovation by 2035. The key actions for the Strategy include supporting businesses who want to innovate and ensuring research and development institutions serve the needs of businesses and places across the UK. Further to this aim, in February 2023 the government created 4 new departments: Department for Science, Innovation and Technology, Department for Energy Security and Net Zero, Department for Business and Trade, Department for Culture, Media and Sport. It is hoped the newly focused net zero division can "Ensure the UK is on track to meet its legally binding Net Zero commitments and support economic growth by significantly speeding up delivery of network infrastructure and domestic energy production."⁵

The Levelling Up Programme⁶ sets out a plan to increase development opportunities across the UK, realising the potential of all places and not just major cities and counties. The programme aims to develop a business-friendly environment, develop a new model of public and private investment, and to incentivise inward investment. It includes a series of UK successor funds and programmes to reinforce this commitment including the UK Community Renewal Fund 2021/2022⁷ and UK Shared Prosperity Fund (UKSPF). It is fair to say that the regeneration agenda has shifted somewhere towards community-based priorities and whilst there is a supporting local business investment priority this area has less prominence and resources than was afforded to the UK Structural Funds. The supporting local business priority is the most relevant:

"Increasing private sector investment in growth-enhancing activities, through targeted support for small and medium-sized businesses to undertake new-to-firm innovation, adopt productivity-enhancing, energy efficient and low carbon technologies and techniques, and start or grow their exports."⁸

BEIS also set out a 'Net Zero Strategy: Build Back Greener'⁹ policy paper. The Strategy sets out proposals with the aim of decarbonising all sectors of the economy to meet Net Zero targets by 2050, by making more ambitious emission reduction targets for 2030. To fulfil this aim, objectives include a place-based approach by working with local government to ensure the capability and capacity for Net Zero delivery as the country 'Levels Up'. One of the key policies of this paper is the delivery of at least £1.5bn in funding to support Net Zero innovation plans.

³ Gov.UK, [Build Back Better: our plan for growth](#), 2021

⁴ Department of Business, Energy and Industrial Strategy, [UK Innovation Strategy](#), 2021

⁵ [Department for Energy Security & Net Zero](#), 2023

⁶ Gov.uk, [Levelling Up Programme](#), 2022

⁷ Gov.uk, [UK Community Renewal Fund Prospectus](#), 2021

⁸ UK Shared Prosperity Fund: prospectus - GOV.UK (www.gov.uk)

⁹ HM Government, [Net Zero Strategy: Build Back Greener](#), 2021

A report by Energy Systems Catapult¹⁰ states that Net Zero by 2050 is possible if the UK supports innovation and scale-up across low carbon technology, land use and lifestyle. However, despite increasing consumer demand and the government's Net Zero targets, many businesses struggle to test new innovations under current market conditions.

1.3 EVALUATION SCOPE AND STUDY OBJECTIVES

This Summative Assessment aims to provide an evidence-based evaluation of the Low Carbon Business Support Programme, assessing the programme against its objectives and highlighting any lessons learnt for future programmes. The scope and aims of the evaluation were to:

- Assess the original rationale for the project, whether it is valid and how it fits with the local, sub-regional and national policy strategies.
- Assess the outputs and outcomes of the project, the overall impact on businesses engaged and the wider sub-region, successes and lessons learnt.
- Conduct a robust quantitative impact evaluation of project performance including: a review of contracted expenditure, outputs, wider employment, GVA gross and net impacts.
- Conduct a value-for-money assessment of the cost-effectiveness using input/output unit cost ratios.
- Assess the effectiveness of the process of delivery, including management, administrative, and delivery mechanisms as well as operational characteristics that have had a significant effect on the scale and nature of the outcomes and impacts realised through the project.
- Identify lessons learned and provide recommendations to improve operational delivery, beneficiary experience and outcomes.

An inception meeting was held to confirm the study approach, agree the principal milestones, and discuss the development of the programme – providing insights to its context and original rationale. A desk review of market failures and the strategic context was undertaken (Chapter 1). An SME survey was designed; 64 businesses completed this online questionnaire, and an analysis of these findings can be found in Chapter 2. Performance against ERDF targets and economic impacts are considered in Chapter 3. Nine stakeholder and delivery partner interviews were conducted, and consultees are listed in Annex One. Discussions covered programme strengths, value added, challenges and lessons and the findings are synthesised in Chapter 4. Lessons learned and recommendations are provided in Chapter 5.

¹⁰ Energy Systems Catapult, [Understanding Net Zero: A Consumer Perspective](#), 2022

Case Study

Addressing energy inefficiencies to improve customer experience in Hillsborough Art Gallery



Cupola Contemporary Art Ltd is a gallery for the sale and exhibition of contemporary art and fine craft, and a quality bespoke picture framing business based in Hillsborough. Founder, director and owner, Karen Sherwood founded the business in 1991 and employs two full-time and three part time members of staff to assist in showcasing the work of local, national and international artists (she has shown the work of 10,000 artists since beginning trading).

Struggling to sufficiently heat the gallery building in the winter and experiencing overheating in the summer, Karen was looking for energy efficient ways to regulate the temperature of the space, as a 19th century property. Karen identified Cupola's largest source of energy use are the lighting and heating of the gallery. When she saw that an energy audit was available, alongside financial support to implement any recommended changes, Karen was keen to be involved with the programme. Cost had been a significant barrier to addressing energy inefficiencies and the 50% grant helped make the necessary changes (lowered ceilings and insulation)

possible. Karen was also attracted to the programme by the possibility of being able to receive the money back within three years. Karen received a grant of around £10,000 towards all the work that was completed, including awnings, heating (boiler), insulation and motion sensor lighting.

"I felt like I was talking to somebody who understood what I might not know."

Karen was impressed with the support provided, noting that the Low Carbon Advisor she engaged with was personable, honest and responsive to her queries. The auditor helped Karen understand the different elements of Cupola's energy inefficiencies and a range of carbon reduction options, so she had the freedom to choose the most appropriate changes for her business whilst being supported by a specialist. Karen appreciated that the programme delivered on what it promised, in a timely manner.

Karen found the energy audit enlightening as it explored aspects of carbon reduction and energy savings that Karen had not considered. Karen also appreciated the advisor taking the time to walk



through the physical space to understand the nuances of the building and how it functions.

"They did what they said they were going to do when they said they were going to do it."

Karen has not yet been able to quantify the impact of the audit report data, yet Karen is confident that the system of heating the building is now significantly more energy efficient than previous arrangements, and that energy costs will fall in due course. Karen believes the regulated temperature improves customer experience in the gallery, whilst demonstrating to her customer base that the business is actively improving its environmental record where possible. The bench heaters and awning look smart and professional, improving the physical look of the gallery and creating an environment where artists are proud to showcase their work. Karen is optimistic that the improvements will help her retain customers and grow her audience in the medium term as more people hear about the changes made. Given the current economic climate, Karen is hoping for stability and single digit growth, believing the programmes support will facilitate better growth in the future.



In the absence of support and match funding, Karen would not have been able to implement the same programme of improvements to her business' energy efficiencies and would only have made small improvements in a piecemeal fashion. Now, as a result of the programme, Karen has a greater understanding of how to improve energy inefficiencies and hopes to continue the insulation of the building's roofs and make other improvements where feasible.

"I've felt very supported."

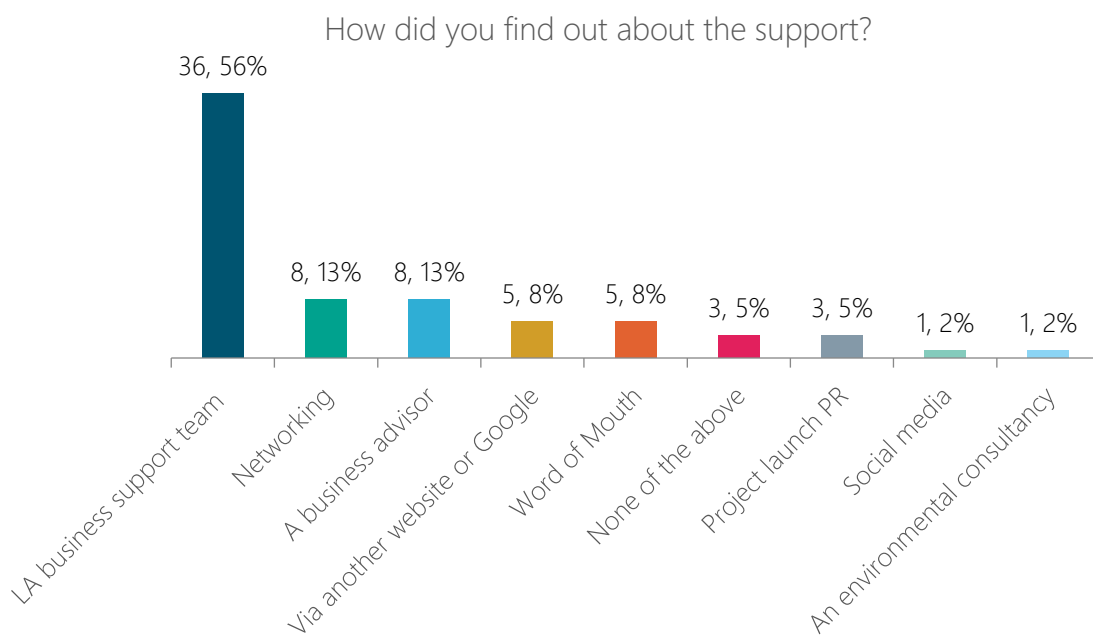
2 BUSINESS SURVEY FINDINGS

This chapter summarises the findings of a survey of businesses supported by the Low Carbon Business Support Programme. It explores the quality of the support and its outcomes; expectations and satisfaction; and its commercial impact and future net zero aspirations.

The online survey reports on the findings of 64 participants who provided feedback, although the response rates differ between questions. These have been analysed and presented as follows.

2.1 PROGRAMME ASSESSMENT

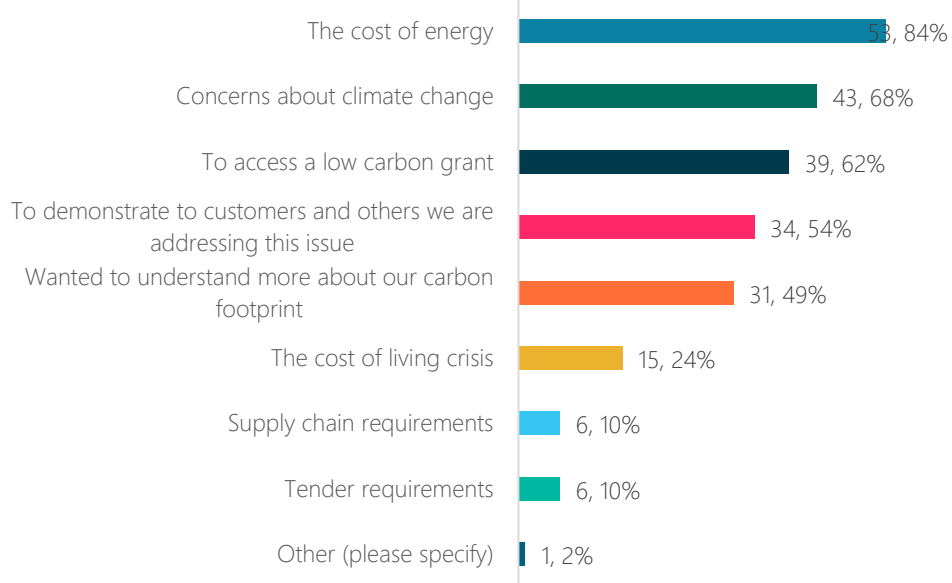
Businesses primarily discovered the Low Carbon Business Support Programme (LCBSP), through their Local Authority Business Support team (36, 56%). Other sources included Networking, through a business advisor or through Google and word of mouth.



Source: Kada Business Survey, March 2023 (n=64)

Most respondents had multiple motivations for their participation in the programme. The primary issue motivating these businesses to join the programme was the cost of energy cited by 84% respondents. Also, climate change concerned over two thirds (68%) of respondents and 62% of respondents were motivated to join to access the low carbon grant which was available. Around half of businesses wanted to demonstrate awareness of climate change to their customers and suppliers (54%), and to better understand their carbon footprint (49%).

Motivations for participation



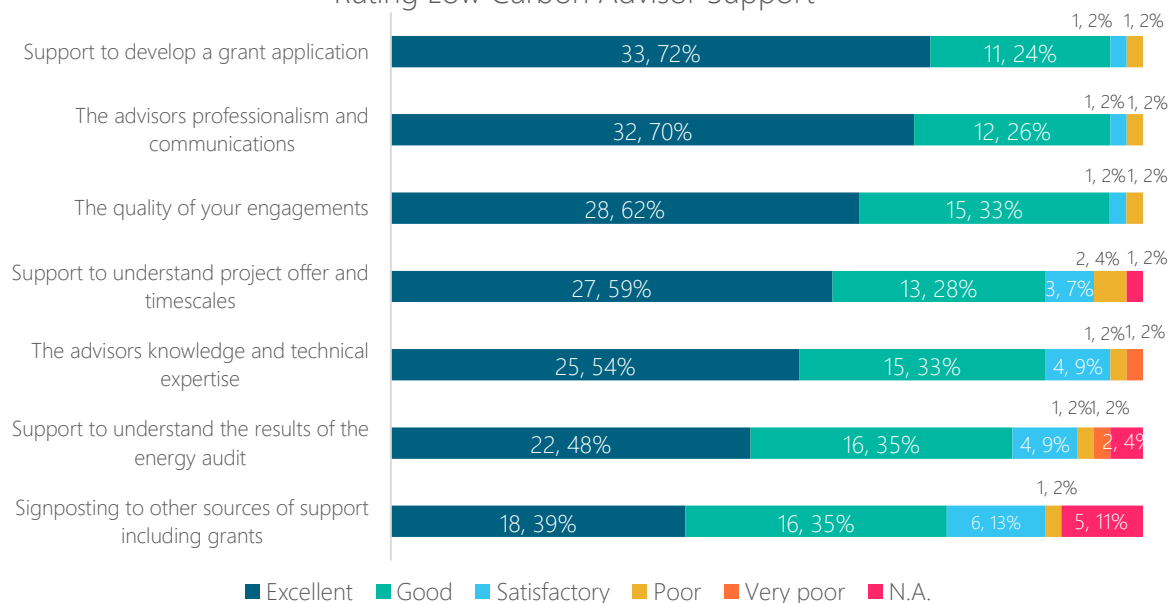
Source: Kada Business Survey, March 2023 (n=63)

Businesses could receive up to three types of support from the programme: engagement with a Low Carbon Advisor (LCA), an energy audit and a grant. In the survey, respondents were routed through questions depending on the support they received.

LOW CARBON ADVISOR

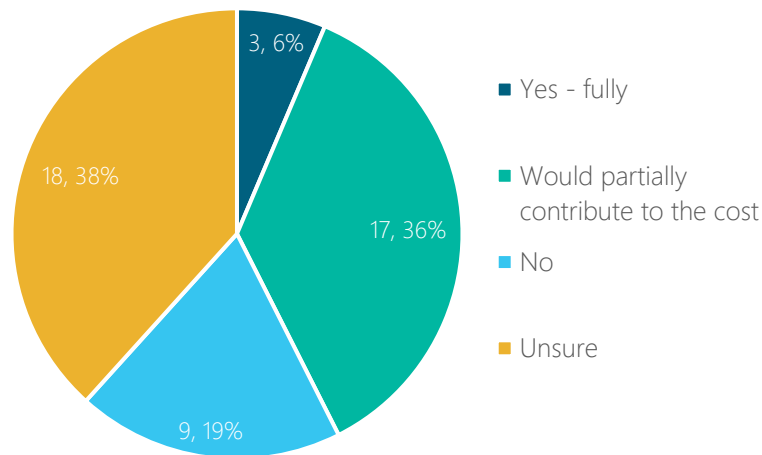
Nearly all (96%) of SMEs reported the Low Carbon Advisors were either excellent or good at providing support to develop a grant application (44 citations). Similarly, high proportions of respondents found the professionalism of the advisor and quality of engagements with them to be excellent or good (44, 96%, 44 citations and 95%, 43 citations respectively).

Rating Low Carbon Advisor Support



Source: Kada Business Survey, March 2023 (n=46)

Willingness to pay for LCA in future



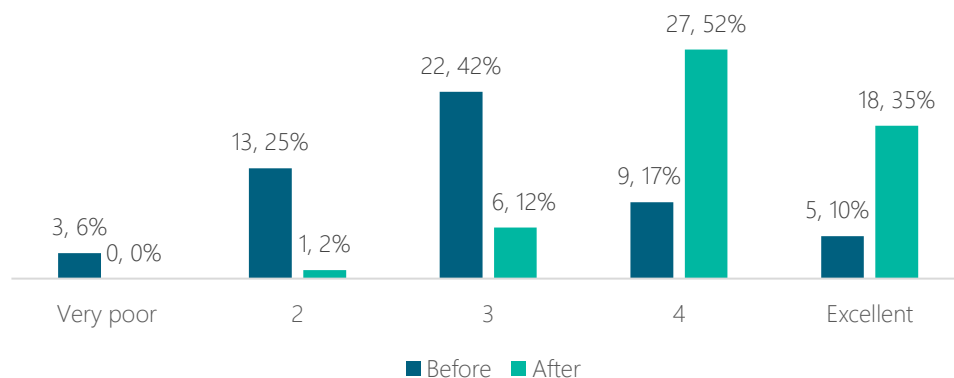
Source: Kada Business Survey, March 2023 (n=35)

When asked about whether they would pay for this type of support again only 6% would pay in full for the support of a business advisor. However, over a third (17, 36%) of respondents would be willing to contribute to the cost of an advisor showing that SMEs do place value on the support.

ENERGY AUDIT

Business' understanding of their carbon footprint was mixed before receiving the audit. The majority had a mild understanding at three out of five (22, 42%). However, after the audit most businesses felt their understanding had improved. There was a 25% increase in businesses who rate their understanding as excellent (18, 35%), and over half rated their understanding at four out of five.

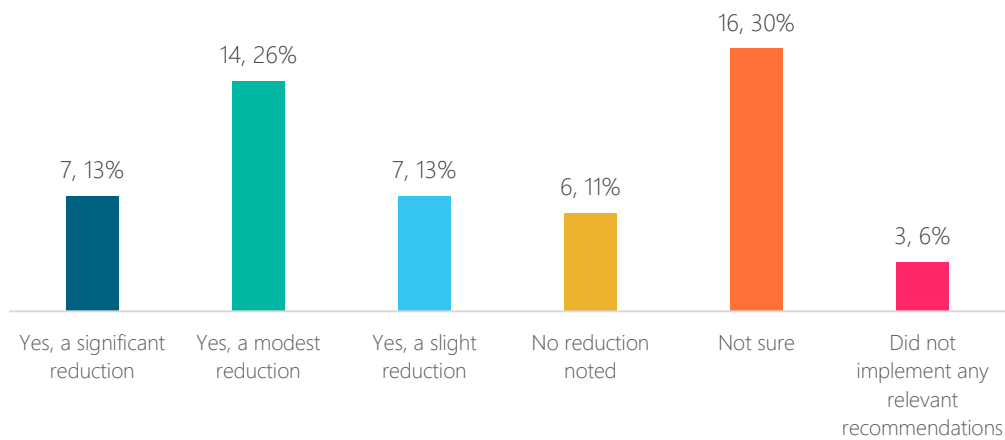
Understanding of Carbon Footprint



Source: Kada Business Survey, March 2023 (n=52)

52% (27 citations) of respondents had already noticed a decrease in their energy usage due to implementing the recommendations in their audit. 17% (9 citations) had not implemented any recommendations or were yet to notice any reduction. Just under a third were unclear if it had decreased their energy usage. A number of businesses were able to identify the reduction achieved, including "£150/month" "£300/month" and "£1,100/annum".

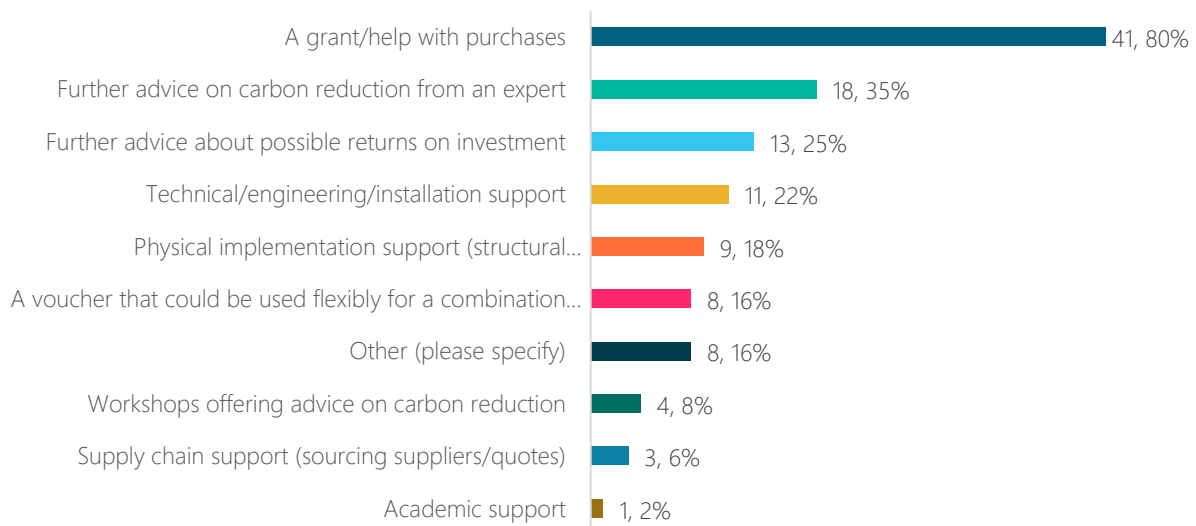
Decrease in energy usage through the implementation of audit recommendations



Source: Kada Business Survey, March 2023 (n=53)

The greatest hurdle facing businesses wishing to improve their energy efficiency was the lack of finances. An outstanding majority (80%, 41 citations) reported needing a grant or other financial help with purchases to implement the changes recommended by their audit. Over a third (35%, 18) would like further advice on reducing their carbon emissions, while a quarter would like further advice on possible return on investment from their low carbon investments.

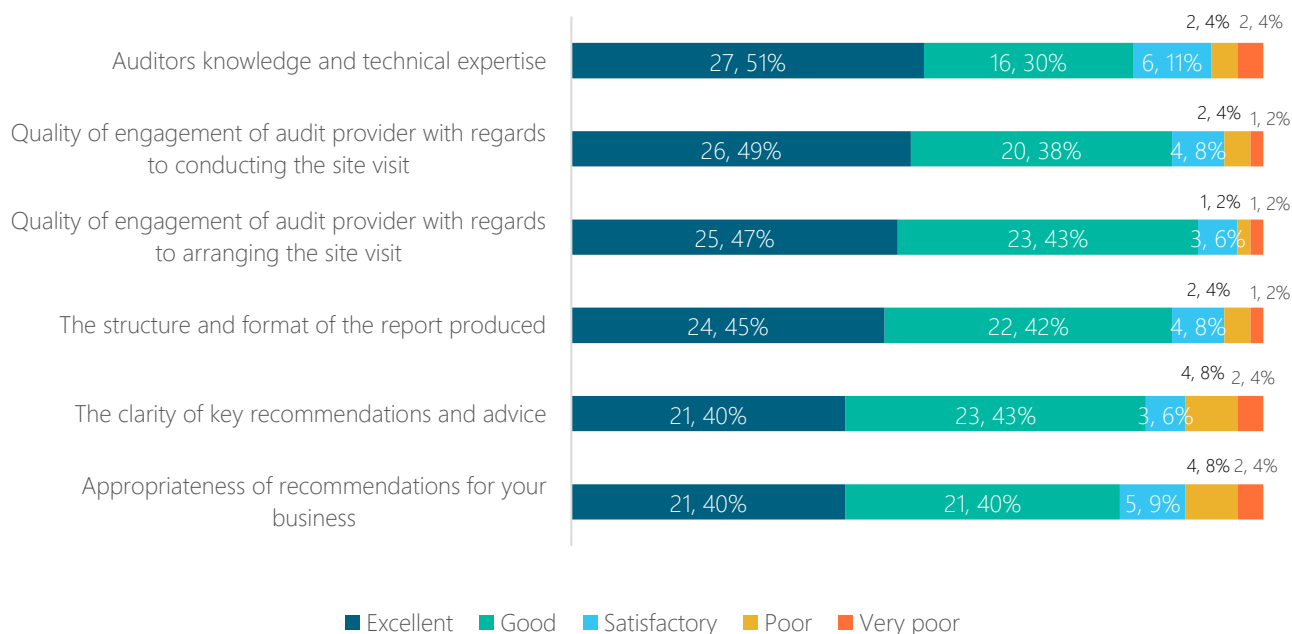
Support needed to implement audit recommendations



Source: Kada Business Survey, March 2023 (n=53)

51% of respondents rated the auditor's technical expertise as excellent, and 30% rated it as good. However, the most positive overall response was regarding the quality of the engagement whilst arranging the site visit as 91% of respondents rated this as either excellent or good.

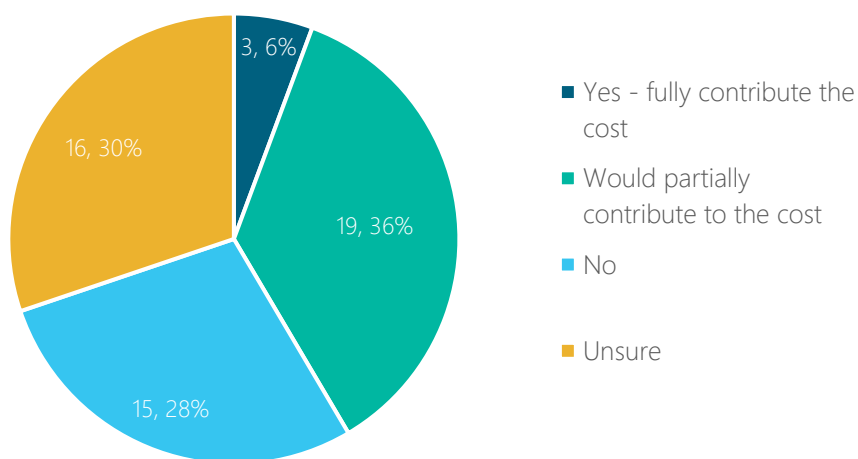
Rating Energy Audit



Source: Kada Business Survey, March 2023 (n=53)

When asked if they would pay for an audit in the future, only 6% of SMEs % of respondents would be willing to fully pay. However, 36% would be willing to partially contribute to the cost of a future energy audit whilst 30% were unsure.

Willingness to pay for energy audit in future

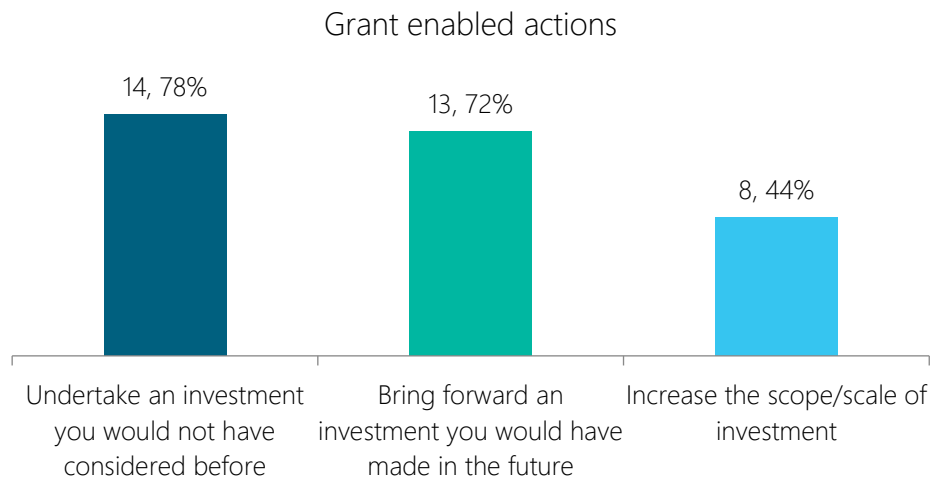


Source: Kada Business Survey, March 2023 (n=52)

Respondents were asked what else they would have liked to have seen in their energy audit, and how it could be improved. Some respondents offered contrasting views, some highlighted the depth and detail of the report as highly useful, however those without specialist knowledge found some of the technical language confusing.

LOW CARBON GRANT

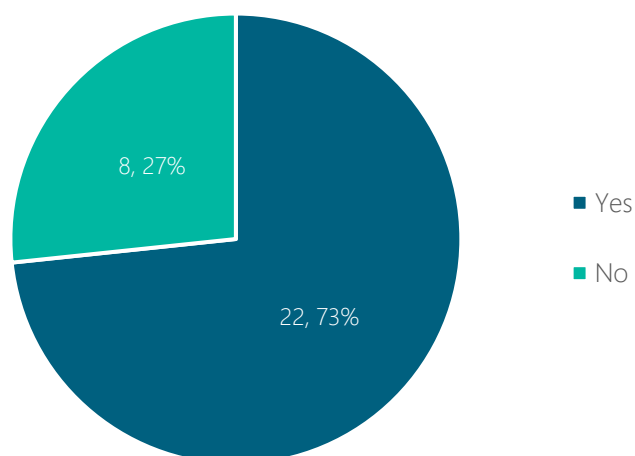
Businesses were also able to apply for a grant to implement net zero changes to their business, primarily from recommendations put forward in their audit report. Nearly four fifths of respondents (78%, 14 citations) who received a grant used this money to invest in measures they otherwise would not have implemented. Just under three quarters of the respondents (72%, 13) reported this funding helped them bring forward their future investments. While around a half (44%, 8) felt this funding allowed them to increase the investments they wished to make.



Source: Kada Business Survey, March 2023 (n=18)

Grant recipients found their investments into energy efficiency technologies helped them decrease their energy usage (22, 73%), which came as a result of the grant.

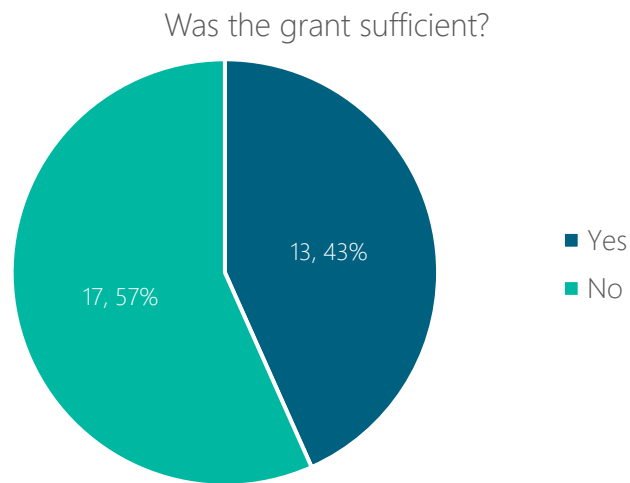
Decrease in energy use due to grant implementation



Source: Kada Business Survey, March 2023 (n=35)

Businesses were less clear regarding the extent to which these reductions have impacted their energy bills, 26 (80%) did not know or reported this was not applicable. The four responses from participants

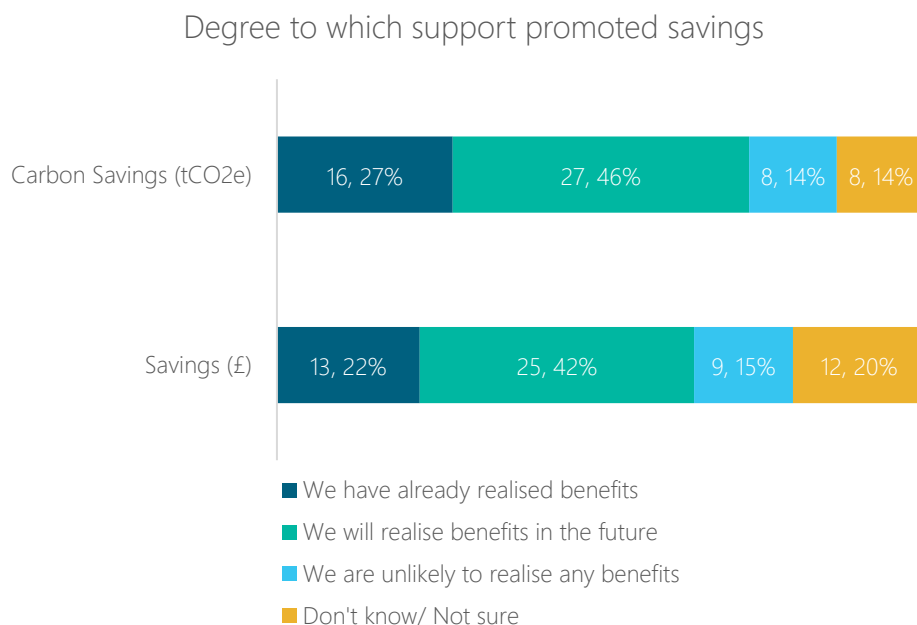
included savings of £150 per month, £200, £300 and £1,100 per annum. To achieve greater accuracy in this data businesses could be followed up after a year, to identify the savings made, which would help to communicate the benefits of the project.



Source: Kada Business Survey, March 2023 (n=35)

More than half (17, 57%) of grant recipients found that the amount they received was insufficient. However at least 43% (13) found the support adequate. Some respondents went on to explain their answer, although it was clear that a few businesses misunderstood how the grant could be implemented. Some found the grant cap was too low to enable businesses to implement recommendations on their report and they instead had to reduce their ambitions in order to fit within the grant cap. On the other hand, other respondents to this question found the funding “addressed the most pressing priorities” and it allowed firms with less finance the opportunity to “implement the largest install so much earlier”.

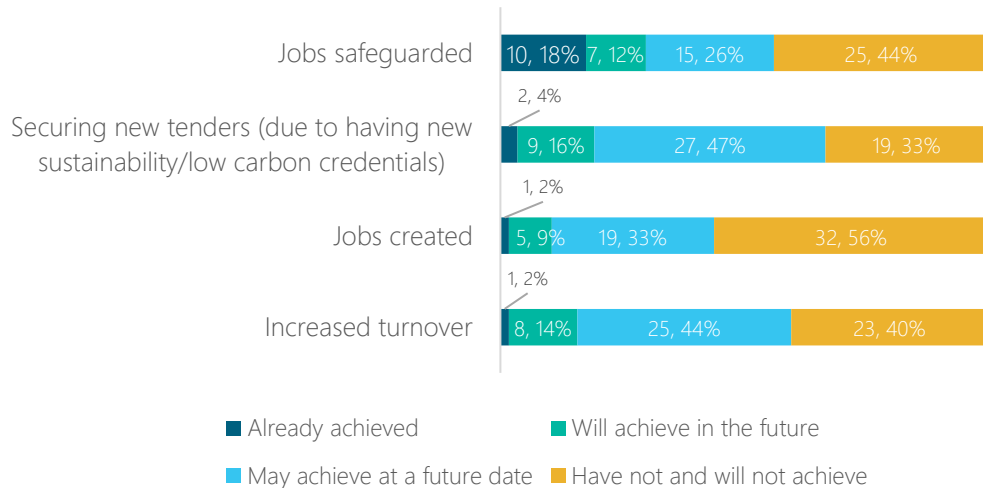
2.2 IMPACT OF BUSINESS ENGAGEMENT



Source: Kada Business Survey, March 2023 (n=59)

Approximately three quarters (43, 73%) of business believe they have already or will achieve savings in their carbon emissions as a result of the project. Over 60% of SMEs (38, 64%) reported they have or are likely to achieve financial savings.

Supply chain opportunities

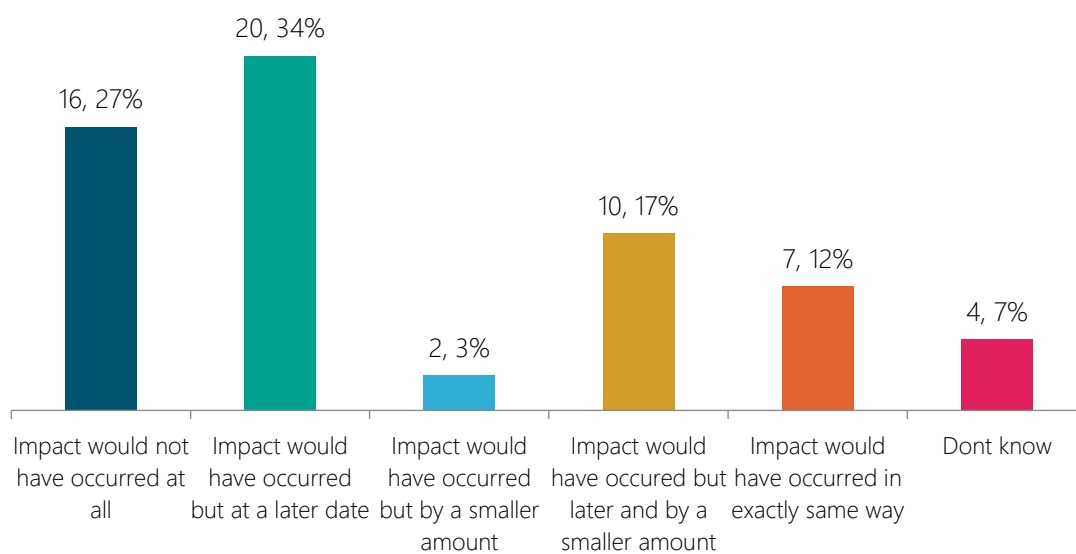


Source: Kada Business Survey, March 2023 (n=58)

Nearly 1 in 5 SMEs have safeguarded jobs following taking part in the programme and a further 12% expect to do so in the future. 11% of respondents have or will create new jobs as a result of the support. When asked about securing new tenders 4% have, 16% think they will achieve this, and 47% say this may happen in the future, in recognition that low carbon credentials are of growing importance to customers and clients. Linked to this, 58% of SMEs think they will or may increase turnover.

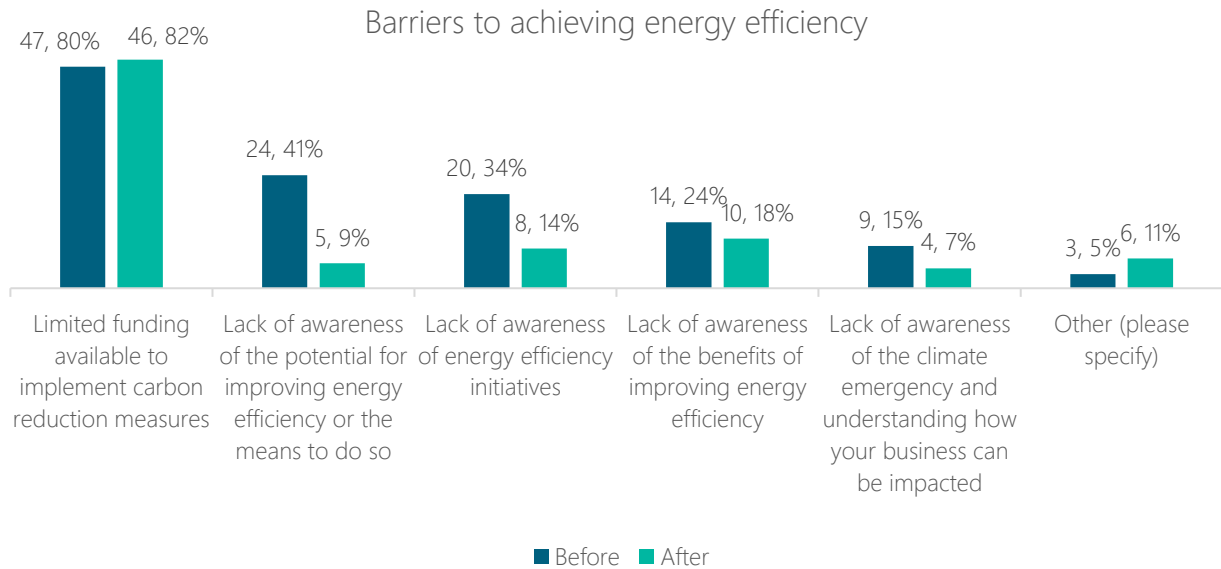
2.3 COMMERCIAL IMPACT

Additionality



Source: Kada Business Survey, March 2023 (n=59)

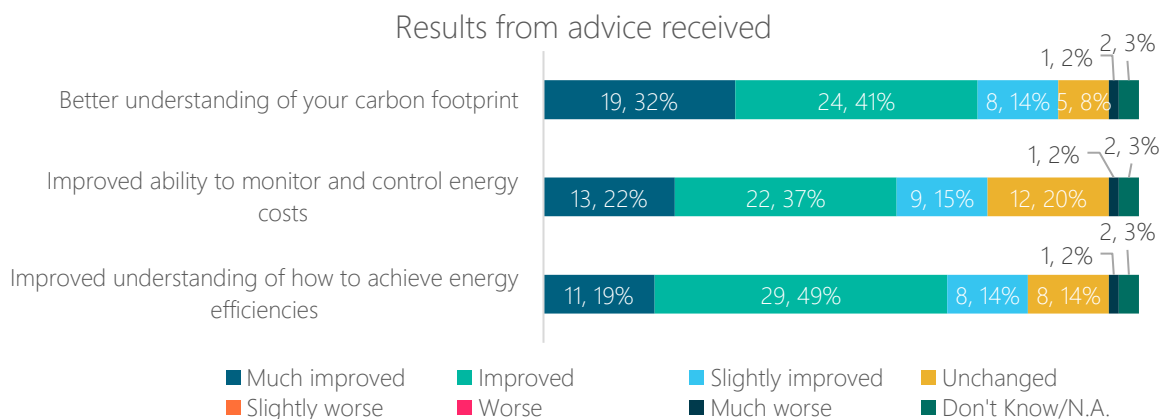
Regarding additionality, over a quarter of respondents (16, 27%) said benefits would not have occurred at all without the programme, suggesting high levels of additionality. 54% of firms cited a combination of time and scale additionality. In other words, they felt the benefits would have occurred but at a later date (34%), by a smaller amount (3%) or a combination of the two (17%). Four businesses were unsure.



Source: Kada Business Survey, March 2023 (n=59 'Before' and 56 'After')

Businesses responded that the greatest barrier to implementing carbon reduction measures, both before (80%) and after (82%) the programme, is a lack of funding. The greatest improvement as a result of the programme was a decrease in businesses having a lack of awareness of their potential for improving energy efficiency (a reduction of 32%). Before the support, more than a third of businesses (34%) were unaware of energy efficiency initiatives however this improved by reducing to 14% after the support. Businesses who reported 'Other' mostly felt they had no major barriers to improving their energy efficiency.

For the majority of the respondents, the support they received has improved their: understanding of their carbon footprint (86%), ability to monitor and control their energy costs (75%), understanding of how to achieve energy efficiencies (81%).

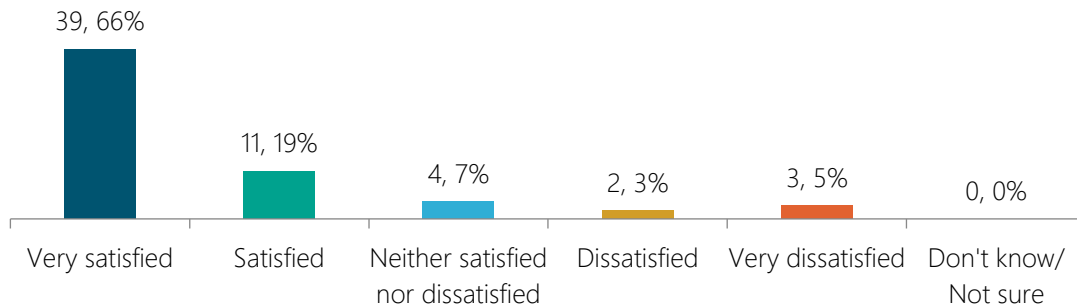


Source: Kada Business Survey, March 2023 (n=59)

2.4 OVERALL SATISFACTION AND RECOMMENDATIONS

Overall, businesses who responded to the survey were highly satisfied with the quality of the support they received, over four fifths were very satisfied or satisfied (50, 85%).

Satisfaction with quality of support



Source: Kada Business Survey, March 2023 (n=59)

Businesses were asked to explain how satisfied they were with the customer experience of the programme. These responses were also overwhelmingly positive (45, 83%), although 14% were negative comments. Quotes from these responses are below:

"Introductory information should have been sent out before the course started to give an understanding of the basics."

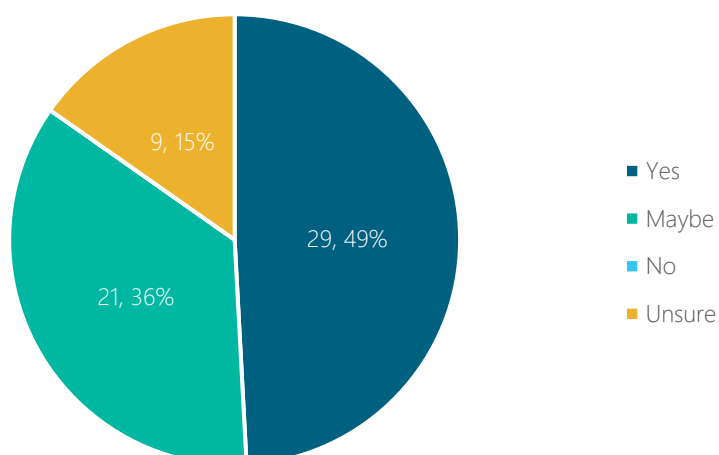
"The officers at Sheffield City Council were excellent, understanding and very supportive."

"Excellent service - a lot of documentation to gather but support was available all the way."

"The support we received by everyone involved was outstanding! 10 out of 10!"

"It was very admin heavy, with our needing to engage with at least 3 sets of people."

Aspirations for net zero



Source: Kada Business Survey, March 2023 (n=59)

Almost half of the businesses surveyed (29, 49%) aspire to achieve net zero. These businesses highlighted an awareness of climate change, and aspirations which form part of the business' values. A further third (21, 36%) would consider doing so in the future. A smaller proportion (9, 15%) were unsure whether this

was a goal for their business. Those who may consider net zero and were unsure both presented various challenges which deter their progress towards net zero. No businesses suggested they would not pursue a net zero ambition.

Businesses have varying priorities for future net zero aspirations, with the knowledge disseminated in their energy audits proving useful in the facilitation of these priorities. Most often cited (19, 36%) were improvements in heating systems (such as ground/air source heat pumps), or improving insulation, to improve energy efficiency. Almost a third (16, 30%) would be keen to install or expand solar panels to produce their own low carbon energy, and to reduce their energy bills. Other common themes included a desire for more sustainable vehicle solutions, and general desires to improve.

Case Study

Cold store insulation and new lighting make coil manufacturer more sustainable

**PREFORMED
WINDINGS**

A global leader in quality for over 50 years



Preformed Windings manufacture high voltage coils and armature coils from a state-of-the-art manufacturing facility in Rotherham. Founded in 1968, the business and its 50 employees have over 50 years of experience in delivering high quality coils for traction motors, high voltage motors and generators. They are a trusted partner to the largest OEM and ship to countries around the world. As a manufacturing company that operated 24/7, they are a supplier of choice for emergency repairs where downtime is critical. The business' main source of energy use was the use of electric for lighting and temperature control purposes. David Beresford, Technical Manager at Preformed Windings, was initially attracted to the Low Carbon Business Support Programme by the grant available, which has enabled him to change old energy inefficient halogen lights.

"The help I got was excellent, I couldn't fault it at all."

David found the audit process thorough and helpful, as the auditor assessed the building and suggested appropriate carbon reduction options. David found the quality of

support excellent, and the low carbon auditor was friendly and patient, guiding David through the programme and helping him understand the energy saving possibilities for the business. David felt the audit report was extensive, detailing the costs of possible changes, the savings that could be made and the payback time of each suggestion. Suggestions were also analysed for their feasibility. David appreciated that the audit was professional and insightful, as it provided him with all information necessary to make well informed decisions about carbon reduction changes to the business. Through engagement with the programme, Preformed Windings received a grant to implement the recommended changes, at a sum of £10,000. The factory implemented cold store insulation and lighting was replaced with suspended LED high bay lamps.

"They were very, very helpful in all ways."

As a result of the programme, the lighting in the factory has improved significantly and employees working night shifts believe this has created a better working environment. The insulation



of the cold store has enabled the business to store material at the temperature of the manufacture's recommendation and resultingly, the business's material has a longer shelf life than was previously possible. The business support programme accelerated the energy savings process for Preformed Windings and whilst the business would have made the same changes at some stage, they lacked the resources to make the changes as swiftly as the programme enabled. The business support programme made the process much simpler for the manufacturer.

"It worked really well... we're over the moon."

Although it is difficult to assess what energy savings have been made due to the rise in energy prices, David is confident from the audit report analysis that over the coming months, the businesses energy costs will be comparatively less than prior to involvement with the programme. Looking to the future, David hopes to continue to implement energy efficiency improvements and investigate the possibilities for savings relating to the large processes the business uses, such as solar panels to produce energy and forms of battery storage to allow the business to use the power well into the evening and night.

3 DELIVERY AND MANAGEMENT

This section of the report explores the implementation of the programme. Interviews with key stakeholders and partners provide the feedback. It reports on the discussions on delivery, impact, and the strengths and challenges of the programme.

3.1 RATIONALE AND CONTEXT

Stakeholders agreed that the rationale not only remained but that it has been reinforced by the project's successes to date. In fact, the rationale is stronger now than ever as the UK's net zero deadline gets closer at the same time as businesses have faced big increases in energy costs.

The project has maintained its focus upon addressing the following market failures that prevent small businesses from reducing their carbon emissions:

- Businesses have limited knowledge on how to reduce energy use and the benefits of doing so. The programme diagnostic and audits address this barrier by quantifying the potential benefits of new processes and/or technology.
- Limited availability of capital funds for energy reduction measure investment despite the long-term cost savings they would bring.

By addressing these barriers beneficiaries have cut their energy use whilst supporting the wider net zero agenda through reduced carbon emissions.

3.2 MARKETING AND SME RECRUITMENT

Most businesses were primarily motivated by wanting to reduce their energy costs. The initial programme marketing was very successful with many enquiries and expressions of interest. The volume on enquiries was so great that contingency measures had to be introduced to process them, and there was less need for marketing as the programme continued.

However, there were applications from unsuitable businesses and beneficiaries were not proportionally spread across the four local authorities. If future projects want to focus more on specific types of businesses or on specific geographies, then more targeted marketing will be needed.

3.3 PROGRAMME DELIVERY

The delivery model was generally well-received by businesses and stakeholders. Where there were changes made during the project to improve processes and programme efficiency, these were seen as positive actions by stakeholders.

Stakeholder perspectives on programme delivery strengths, challenges and partnership working are summarised below.

DELIVERY STRENGTHS

Particular programme strengths were as follows:

Project management was viewed as impressive. The programme manager received praise with references made to their communication and their positive, solution oriented and flexible approach.

The management team embraced reflective learning. The strong programme communication led to continued iterative programme improvements. Good programme monitoring meant that solutions and new structures were put in place efficiently when any issues or problems arose.

Low Carbon Advisors understood commercial pressures facing businesses. The advisors shaped the programme delivery around a clear understanding of the operational difficulties facing businesses. This included clear attempts to reduce the administrative requirements placed upon participants.

Low Carbon Advisors helped businesses to improve their understanding of potential energy and carbon savings and supported engagement with the audit reports. Participants valued the advisors' use of business terminology to build cost and energy saving understanding. They also valued the support the advisors offered in terms of unpicking the audit reports and submitting grant applications.

DELIVERY CHALLENGES

- Job adverts for advisors garnered little response from people with sufficient low carbon experience, however there was not the time available to pursue multiple rounds of recruitment. Limited staffing slowed down the number of audit referrals limiting the number of projects that could be supported.
- The time taken to complete the energy audits varied depending on the extent of data available and scope of work required. In some cases there was a disconnect between what providers stated they could undertake and what they could do in practice, limiting the number of projects which could be designed and delivered within the timescales.
- Ongoing global supply chain and national labour shortages meant that participants struggled to get quotes on work and faced even greater challenges sourcing suppliers who could commit to completing the work within the programme timeframes. This was accentuated by limited business advisory capacity and time.
- The timescale of the programme means that the results of energy efficient interventions have not all been visible during the delivery programme, meaning the project team have not been able to report the full carbon reduction impact of the project.

COVID-19 further constrained the timescales:

- The Covid-19 pandemic and associated lockdowns affected the programme timescales. Staff time was redirected to support the COVID business grants process. This had a significant impact upon the amount of resource that could be allocated to the programme with work almost completely ceasing during this period.
- Covid related staff redeployment meant that signing the contract with CLG was delayed by a year. This had a significant impact on the effective programme delivery timeframe which limited the number of SMEs that could complete the customer journey process and deliver energy efficiency projects.

PARTNERSHIP WORKING

Partnership working took place in different formats, with differences in the experiences of advisors, audit suppliers, and local authority partners:

- Stakeholders reflected that the much of the programme was inclusive, open with regular project meetings and good levels of communication. They did reflect that there could have been more collaboration with the business advisors and that increased levels of cross local authority work would have brought a more equitable level of programme contribution.
- The financial planning and management of the programme was regarded as effective.
- Effective partnership work was seen as more challenging toward the end of the programme with limited attendance at steering groups a contributing factor.
- The original intention for collaboration with other low carbon projects failed to materialise.

3.4 SUCCESSES AND IMPACTS

Stakeholders report that the programme has made significant impact in terms of reducing carbon emissions and raising awareness amongst SMEs:

Projects have delivered sizeable carbon reductions: the programme has delivered tCO₂e reductions above its target. This was seen as a significant achievement in the context of the issues previously outlined. The carbon savings come from reduced energy consumption, with lower energy bills demonstrating to businesses the value of being more energy efficient.

SMEs have valued the audit reports as decision making tools: The energy audits were regarded as a very useful tool to assist businesses in understanding how to be more energy efficient and how to prioritise and choose between different interventions. The level of detail was welcomed by the SMEs.

SMEs have the information needed to continue making savings: The businesses that received an audit were provided with increased awareness of potential energy saving options, and an understanding of the potential return on investment and payback period. Many businesses also indicated to the programme team that they intend to implement future energy saving activities and advisors have recommended different ways SMEs can find funding to take projects forward.

Case Study

New hotel heating making hospitality more sustainable



Mount Pleasant Hotel is a family run hotel, now part of the Best Western Group, founded in 1936. Richard McIlroy is the grandson of the founder who opened the hotel in 1936. The hotel is set in 100-acre grounds surrounded by woodland. The site, just south of Doncaster, provides links to the airport, M18 and railway station. Currently at 90 rooms, the hotel's offering also includes a spa, restaurant facilities, wedding venue and luxury cottages.

The Low Carbon Business Support Programme has provided the hotel with the support of a Low Carbon Advisor, an energy audit, and a grant to implement energy efficiency improvements in the hotel. Due to its age some areas in the hotel use an efficient gas-fired central heating system, whilst newer parts have air conditioning. The recent rise in gas prices increased Mount Pleasant's heating bill to over £300,000. Richard was motivated to join the programme to address this concern, and to improve the overall carbon footprint of the hotel which is an ongoing ambition.

The Low Carbon Advisor guided Richard through the process of the programme

and ensured all the paperwork was in place for the audit. Richard found their support useful in keeping everything on track. The audit enabled Mount Pleasant to understand their current energy efficiency, and to highlight areas which could be improved. Richard explains they were already taking steps to make improvements, but appreciated the insight into other areas which the hotel could address. The grant enabled Mount Pleasant to introduce air conditioning and remove radiators in a further 20 of their rooms. As the only Premier Best Western hotel in the UK, Mount Pleasant are keen to roll this out to the rest of the hotel too. The grant was particularly important for the hotel as they incur two costs when installing the air conditioning systems – from the initial purchase and the lost bookings when the room is closed for renovation. At the time of writing it is too early for the hotel to quantify the benefits they have gained from implementing these changes. However the audit information means Richard is confident the bills for the hotel will begin declining soon. These new air-conditioned rooms will also benefit customers who will be better able to enjoy Mount



Pleasant's rooms during hot British summers and cold winters.

"They came up with various options which we could implement... we worked with them to identify the quickest to implement with good payback periods."



In the near future Mount Pleasant have prioritised completing the air conditioning roll-out. The hotel's other ambitions include addressing the hot water system which can be a big energy drain. Due to the vast grounds around the hotel, a ground-mounted solar array is also something that is being explored. However Richard is wary as the cost of installation is vast and the payback time slow, so the hotel would be keen to engage with other programmes to support this development.

"We are always looking for ways to reduce our costs and our carbon footprint, this programme helped us with both."

"Trying to create a room by room heating system was a nightmare... we were able to quickly implement air conditioning and it's been a great success."

4 PERFORMANCE AND ECONOMIC IMPACT

This chapter presents the Low Carbon Business Support programme's performance against target spend and outputs at the time of the evaluation. The section also estimates the economic impact of the project and assesses its value for money.

4.1 OUTPUT PERFORMANCE

The challenges resulting from the short programme timescales, compounded by the impact of COVID-19 limited the number of SMEs who could be awarded grants for low carbon projects.

Impressively, despite not awarding grants to as many companies as hoped, the project was very successful at delivering impactful projects and significantly exceeded the Greenhouse Gas (GHG) emissions. The level of private sector match for projects also demonstrates that SMEs have been enabled to coinvest in sizeable projects.

Including those companies who have received grants, and those who didn't progress to that stage, 156 have received advice or support. Although this was not a contracted target it does show the reach of the programme is wider than just those SMEs who received grants. However, this was less than an aim to engage 260 SMEs, further demonstrating the impact reduced project timescales had on the programme reach.

The table below reports current outputs achieved against contracted ERDF targets. In terms of progress:

- 70 enterprises have received grants for C2 (50% of the target 140).
- A reduction 580.54 tCO₂e of GHG has been achieved for C34 (129% of the target 450).
- £569,842 private sector match funding has been achieved for C6 (93% of the target £610,000).

Output	Target in most recent funding agreement	Total Achieved by project closure	Proportion Achieved to date (%)
C2 - SMEs receiving grants	140	70	50%
C34 - Estimated GHG reductions (tCO ₂ e)	450	580.54	129%
C6 - Private sector investment matching public	£610,000	£569,842	93%

Source: LCBSP Monitoring Data, Programme Management Team 2023

4.2 EXPENDITURE PERFORMANCE

The shortened delivery timescale meant that the programme delivery team could not defray all of the ERDF budget allocation before project close.

Even though there was not sufficient time to defray all of the funding, the project was successful and leveraging private sector match, as shown in Section 4.1 above.

The table below shows that Low Carbon Business Support programme has spent 69% of allocated ERDF funding.

Expenditure	Amount in most recent Funding Agreement (£)	Total achieved by project closure (£)	Proportion Achieved (%)
Total ERDF Expenditure	£1,382,811	£950,367	69%

Source: LCBS Monitoring Data, Programme Management Team

4.3 ECONOMIC IMPACT

The excellent performance of the Low Carbon Business Support project in terms of reducing energy use and GHG emissions has created benefits and added value for businesses. Commercial benefits are seen through reduced energy bills and access to supply chain opportunities helping them to safeguard or create jobs. This in turn creates economic impact.

Economic impact, expressed as Gross Value Added (GVA), has been calculated based on SME survey data collected and current output claims. GVA is derived from employment impacts reported by companies, which are jobs created and safeguarded to date and in the future. GVA impacts are assessed over 3 years and expressed as Net Present Value (NPV). The approach to the model is outlined below.

APPROACH TO ECONOMIC IMPACT MODEL

A comprehensive assessment of the economic impact of the project was undertaken comprising of:

- Direct Employment: Employment impacts and resultant GVA.
- Indirect Employment Effect: The effect on suppliers and resultant productivity / GVA.

The Treasury's Green Book offers guidelines in assessing the true impact of investments. In line with these, steps were taken to assess gross and net employment impacts, GVA and net present value.

- The expected number of jobs created and safeguarded used in the model is based on responses from the business survey and projected over three years. Based on the survey, on average 8 jobs per company are expected to be created/safeguarded, with 19.3% of respondents already achieving this and 21.1% expecting to do so in the future. These figures have been extrapolated and applied to a proportion of the C2 output total (the number of firms receiving a grant) and, in line with the guidance, the estimated increase has been reduced by 15% to adjust for Optimum Bias (the "*demonstrated, systematic, tendency... to be overly optimistic*" when forecasting future benefits¹¹). Additionally, a two-year build-up of future jobs created/safeguarded has been assumed i.e., future jobs created/safeguarded have been introduced in year three in the model.

The gross to net adjustments applied to jobs are as follows:

- Deadweight was calculated using data collected in the beneficiary survey. Excluding 'Don't know' responses from the total SMEs consulted, SMEs were asked the extent to which benefits would have occurred without the project, to inform additionality of the jobs modelled. 29% of companies said benefits would have arisen without the support from the Low Carbon Business Support project, with 36% saying benefits would have occurred but at a later date. 22% of

¹¹ Supplementary Green Book Guidance: Optimism Bias, 2013, HM Treasury

companies said benefits would have occurred by a smaller amount or by a smaller amount at a later date.¹² Therefore, deadweight was assumed at 37.3%.

- Displacement was 19.5% at local level and leakage was assumed low at 10% as beneficiaries must operate in the target geography in order to be eligible for support.
- An average composite UK employment multiplier was used at 1.25 to calculate the indirect employment effects (from ONS).
- The persistence of the benefits i.e., how many years the benefits are expected to persist and the period over which benefits will accrue until they reach their full potential. In this instance, a modest three-year time frame was chosen.
- A decay of 10% per annum has been used i.e., the proportion of annual benefits expected to be lost from one year to the next due to economic changes, other investment decisions etc.
- Calculation of the Net Present Value (NPV)¹³ of the GVA benefit stream over a three-year persistence was discounting back and utilised an appropriate rate. The Green Book guidance has been followed which recommends discounting by 3.5% in order to determine NPV.
- A cost benefit ratio calculated by Net Present Cost (NPC) against NPV i.e., the amount each £1 of investment generates.
- Kada estimates for GVA per FTE has used BRES (The Business Register and Employment Survey) and ONS (Office of National Statistics), for Wales. No account is taken for self-employment.

The estimates of the economic impact and value for money are based on what has been achieved to date from the monitoring data on job creation, businesses supported and spend.

HEADLINE ECONOMIC IMPACT

The following table shows that the Low Carbon Business Support programme will safeguard or create an economic impact of 135 Full Time Equivalent (FTE) gross jobs (108 direct and 27 indirect) and 61 net FTE jobs (49 direct and 12 indirect). After converting to GVA and applying deadweight, displacement and leakage (as explained in the approach above) the **total economic impact of the Low Carbon Business Support programme is £9.1million NPV GVA.**

Economic Impacts

	Gross Jobs	Net Jobs	GVA	NPV over 3 years
Total	135	61	£3,475,191	£9,124,840
Direct Jobs	108	49	£2,780,153	£7,299,872
Indirect	27	12	£695,038	£1,824,968

Source: Kada Research, 2023

¹² These figures are different from those cited in Chapter 2 as the 'Don't know' responses are not included in the total figure (n) to calculate deadweight.

¹³ Net present value is a calculation that compares the amount invested today to the present value of the future cash receipts from the investment. In other words, the amount invested is compared to the future cash amounts after they are discounted by a specified rate of return.

4.4 VALUE FOR MONEY ASSESSMENT

The estimated *NPV of £9.1m would result in a cost benefit ratio (BCR) of 4.0:1* i.e., each £1.00 of public investment will generate £4.00, using the grant funding budget. *This represents high value for money* according to the DCLG Appraisal Guide¹⁴ which states the value for money categories as based on the size of the BCR.

The total project cost per business assisted is £32,924 per business and the cost per net job generated is £8,552. The cost per business assisted at £32,924 is just below the cost expected for this kind of activity at the median level. Adjusted for inflation this ranges from £21,300 in the lower quartile to £48,700 (median) and £119,100 (mean)¹⁵. The cost per net job created of £8,552 is below the lower quartile expected for this kind of activity but below the median level. Adjusted for inflation, this varies from £14,700 (lower quartile) to £32,900 (median) and £90,900 (mean)¹⁶.

The Low Carbon Business Support project demonstrates high value for money given the return on the investment (BCR), as well as cost per business supported and cost per job created figures. This suggests that the programme as a long-term investment will help to grow the local economy in South Yorkshire.

¹⁴ Department for Communities and Local Government [Appraisal Guide](#), December 2016, p 2.56

¹⁵ England ERDF Programme 2014-2020: Output Unit Costs and Definitions, A Final Report by Regeneris Consulting, 2013, pp12 (Adjusted for Inflation, Bank of England)

¹⁶ Op. Cit.p.10.

Case Study

Making the manufacturing supply chain more sustainable

Ashton Seals, part of the Ashton Group, is an established leader in the sealing industry. The company has been operating in South Yorkshire for over 150 years and is chaired by a direct descendent of the founder. The business manufactures a wide range of sealing solutions, gaskets, fasteners, and specially engineered products. These items supply a diverse range of industries including but not limited to, aerospace, automotive, food and beverage, hydraulics, and pneumatics, pharmaceutical and renewables.

The business recently became aware of support available in the region and this fitted in well with a need that had been identified to improve their energy efficiency by implementing LED lightings throughout the business.

The Low Carbon Business Support Programme provided three stands of support to Ashton. They received an energy efficiency audit to identify their areas for improvement, a grant to support opportunities to implement energy efficiency improvements, and a specialist business support advisor to guide them through the process.

The Low Carbon Advisor from SCC supported Ashton Seals every step of the way, they found their support invaluable. Their assistance was useful when filling in forms and providing documentation for the audit. The input of the advisor was also helpful when completing the funding application for the grant.

The audit was comprehensive, and the consultant took their time to analyse every aspect of the site from the warehousing and manufacturing space to the offices. Ashton Seals also appreciated the consultant's ability to identify areas where they could improve in relation to other similar businesses.

"It was a fantastic report, it had lots of advice on what we could do differently. It was also good to be able to see what would result in the biggest carbon reduction for us".

As a result of the grant, Ashton Seals were able to install LED lighting throughout their premises, which will reduce their electricity bill. The company was also able to introduce new heating systems throughout their building which will improve the working environment for their staff and reduce the heating bill.





These improvements have only been installed recently so it is too soon to tell the scale of the improvements, however between February and March 2023 the company saw a 10% reduction on their energy bills from the same period the year before, despite the national increase in prices. The lighting has also made the business more presentable to high profile customers who come to visit the factory. The future operations of Ashton Seals now look even more sustainable as they are already working towards sending zero waste to landfill and have plans to improve recycling in their supply chain too.

"Thank you very much for the support, for the help, and for the financial assistance."

"We wanted to improve the lighting for a number of years but due to the high investment this has been prohibitive. However, due to the grant funding we have now been able to implement this initiative and we look forward to seeing the benefits for many years to come."

5 CONCLUSIONS AND RECOMMENDATIONS

This chapter summarises the evaluation findings, covering strengths successes and added value before discussing lessons and recommendations for future consideration.

5.1 STRENGTHS, SUCCESSES, AND ADDED VALUE

KEY STRENGTHS

The evaluation has identified the following strengths of the delivery model:

- Project management was viewed as impressive with willingness to reflect and refine processes during the project when learning what worked well and less well for different project strands and delivery partners.
- The advisors provided the right mix of commercial experience and low carbon expertise needed to help them through the application process, to explain carbon reduction and energy efficiency in a language SMEs could relate to, and to act as a bridge to the audit reports.
- The energy audits were invaluable in building SME's understanding and knowledge of what energy reduction actions they could take and the benefits of doing so, even if they could not afford to at this time. Some SMEs are taking forward audit report recommendations after their engagement in the programme has ended.
- The grant has been successful at ensuring a high conversion rate of energy audits into projects, even if funding was not sufficient for SMEs to deliver all projects.
- tCO₂e emissions have exceeded targets, even though the business engagement targets have not been met. This shows the impact individual energy projects have and the potential for making further carbon reductions in the future.

SUCCESSES

The strong delivery model has successfully achieved the following, despite the timescale challenges faced:

- Projects have delivered sizeable carbon reductions: the programme has delivered tCO₂e reductions above its targets. This was seen as a significant achievement in the context of the issues previously outlined. The carbon savings come from reduced energy consumption and lower energy bills are demonstrating to businesses the value of being more energy efficient.
- SMEs have valued the audit reports as decision making tools: The energy audits were regarded as a very useful tool to assist businesses in understanding how to implement carbon savings and which efficiencies to prioritise. The level of detail was welcomed by the SMEs.
- SMEs have the information needed to continue making savings: The businesses that received an audit were provided with increased awareness of potential saving, an outline of potential energy saving options, an understanding of the potential return on investment and payback period

length. Many businesses also indicated to the programme team that they intend to implement future energy saving activities and advisors have recommended different ways SMEs can find funding to take projects forward.

ADDED VALUE

The strengths and successes of the programme delivery model created added value for SMEs in addition to benefits already experienced and reported in the beneficiary survey. The three areas of added value are:

- More businesses have increased awareness of energy reduction measures, the effectiveness of different measures, and the associated payback periods, helping them to make commercial decisions in years to come.
- Business advisors have signposted businesses to other avenues of funding support, which help SMEs deliver a pipeline of longer-term projects identified in the audits.
- Financial savings and improved business resilience will be achieved for the businesses that were successful in delivering projects, helping to secure or create jobs.

5.2 LESSONS AND RECOMMENDATIONS

KEY LESSONS

Key lessons from the evaluation are:

Limited delivery timeframe, exacerbated by COVID-19, reduced the potential scale of the programme. For example, to manage the expectations of SMEs and avoid overcommitting, the programme was not promoted. This resulted in limited uptake from SMEs in Doncaster and Rotherham. A longer delivery timeframe would enable more SMEs to be engaged, with more carbon reduction projects delivered.

Procuring audits via a mini-competition call-off process was onerous for the programme management team and audit suppliers. The mini-competition process took time to manage, slowing down the audit process, and created uncertainty amongst suppliers who did not know if they were going to be awarded audit contracts.

The audit approach could be more flexible to accommodate businesses that are at different stages in their carbon reduction journey. Some businesses were starting from scratch and needed a full audit, whereas others already had more of an understanding of their priority projects and felt the audit delayed the process or was not suited to them. However, this needs to be balanced against the fact *the audit provides a resource for the SMEs to continue to use in the future*.

Having expert advice at different stages is important however, at times stakeholders felt that this resulted in SMEs being handed over between different people at different steps of the process causing a lack of continuity.

Learning whilst doing was important, for example improving the audit process during the programme. Changes saw the programme management team gathering energy bill evidence, and auditors detailing measures as a phased investment approach so that a smaller initial investment might qualify for grant support.

The legacy created for SMEs is derived from providing a whole set of recommendations, not just a one-off grant. Providing a suite of options gives SMEs an opportunity to develop further projects when funding is available and provides a roadmap towards net zero.

RECOMMENDATIONS

Based on the evaluation findings Kada propose the following recommendations for consideration for programme delivery, programme design, and policy makers, in keeping with ERDF Summative Assessment guidelines.

Programme delivery

1. Streamline the diagnostic process by using a checklist to be completed by the business advisor.
2. Maintain a consistent client manager / point of contact for SMEs from diagnostic, through to audit report feedback and grant application.
3. Hiring business advisors as consultants rather than full-time employees may make recruitment easier, providing more resource for recommendations 1 and 2 above.
4. Introduce a follow-up assessment to see if the energy savings forecast in audit reports have been achieved.
5. A dedicated advisor support for each Local Authority Area would help to promote a more proportionate split of SMEs across the region.
6. Consistent attendance at Steering Group meetings would allow members to closely monitor performance in their respective areas and contribute to solutions to address any performance issues in a timely manner.

Programme design

7. Increase the timescales for programme delivery to reduce pressure on different project stages, and to allow time for benefits to be measured and projects followed-up.
8. Ensure experts/advisors are available/based in each local authority area to provide businesses with a local contact – similar to how Growth Managers operate for some Growth Hubs. Regular meetings/knowledge sharing between advisors can ensure they feel part of a team despite being based around the region.
9. Introduce flexibility for direct grant awards with no audit needed if companies already know what needs to happen and can evidence this. Not having such a formulaic audit process could be possible in post-ERDF funding.
10. Consider different grant levels to help balance a desire to help as many SMEs as possible against potential impact or value for money. For example, selection criteria such as minimum energy spend, or minimum energy usage have potential to create bigger energy savings, making a grant award better value for money. However, to help all SMEs transition to net zero will require smaller energy users to invest in energy reduction measures even if payback periods are longer. Different grant levels could mean some smaller grants do not have selection criteria, whilst criteria are used for higher-value grants.

11. Different grant levels also mean larger and more ambitious projects can be funded where businesses have more funding to provide as match. This should aim to fill gaps in regional support rather than duplicate other programmes (see recommendation 14).
12. Streamline energy audit commissioning by using a simplified call-off process, removing the need for the mini-competition process.

Policy makers

13. Using sustainability experts to advise on the best factors and metrics to use for measuring carbon emissions or energy consumption will ensure best practice and global standards are followed.
14. Provide advice and grants for a wider carbon reduction and sustainability remit. For example, reducing carbon emissions from resource use, waste, company transport, and procurement which all contribute to a business' carbon footprint.
15. At a regional level, work with projects like Low Carbon Business Support, to better cross-refer SMEs between the range of specialist and general programmes run by each local authority and SYMCA. A business may apply to the Low Carbon Business Support Programme who has other business needs identified in the diagnostic, and they would benefit from being sign-posted to other programmes in the region.
16. At a regional level, design carbon reduction programmes so that they do not directly duplicate one another, and instead provide different offers to SMEs. Programmes should sign-post SMEs to one another, so that the SME receives the most appropriate support.

ANNEX ONE: STAKEHOLDERS CONSULTED

Name	Organisation
Yvonne Asquith	Sheffield City Council
Jessica Rick	Sheffield City Council
Sue Harrison	Doncaster Council
Laura Wheatley	Sheffield City Council
Carly Stratford	Sheffield City Council
Jason Martin	Professional Energy Purchasing (PEP)
Seyhan Turan	Altass Consulting
John Sellers	Employed by Sheffield City Council
Marcus Pearson	Pragmatica Business Support Services
Martin Beasley	Enterprising Barnsley



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