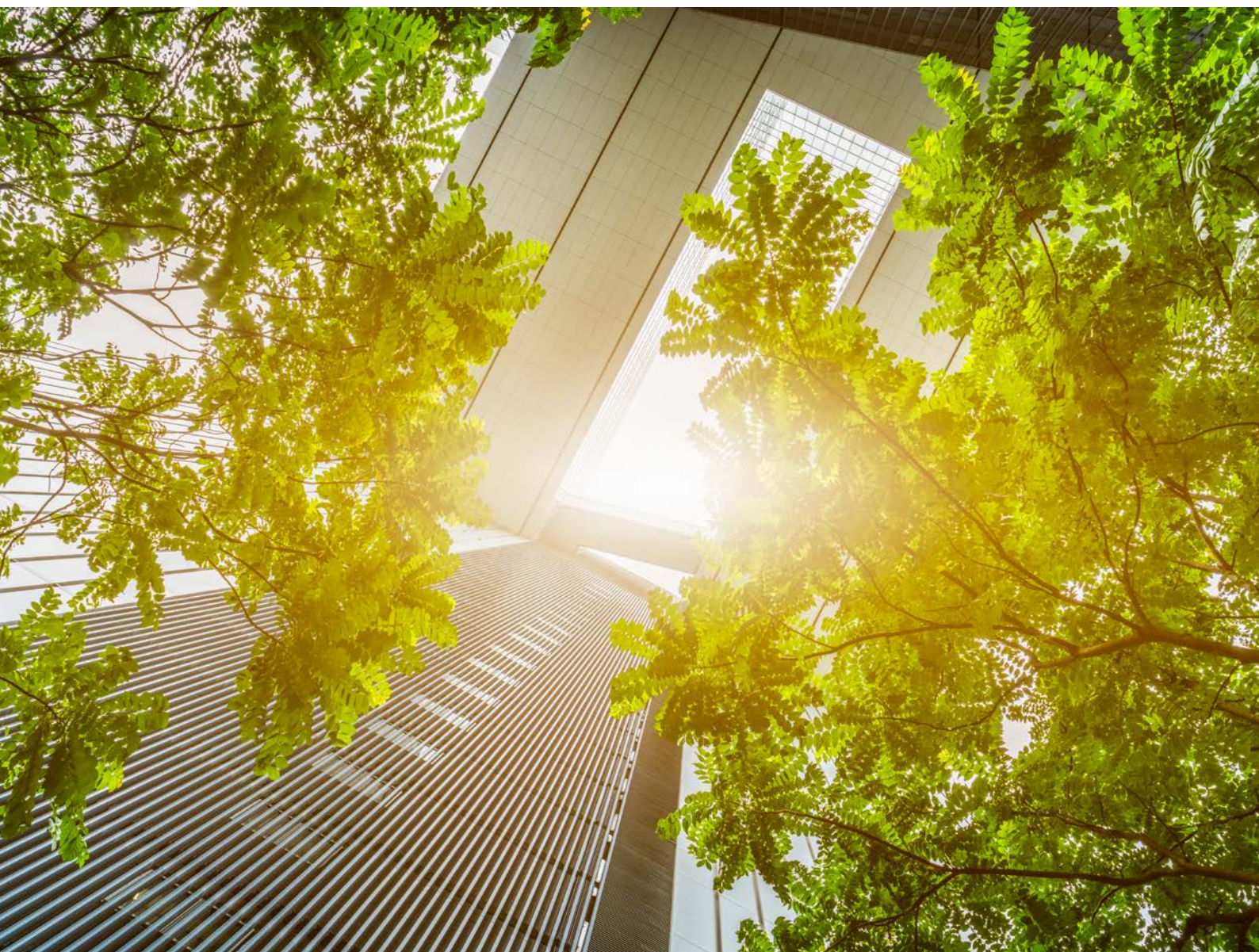


# Low Carbon Workspaces Berkshire Programme Evaluation

Prepared for Ngage Solutions | September 2023







**The programme is part of a suite of business support initiatives that Ngage Solutions are delivering to help businesses grow, be more resilient, and become more environmentally aware and sustainable.**



# Executive Summary

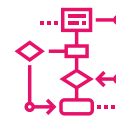
Ngage Solutions commissioned Winning Moves to conduct an independent evaluation of the Low Carbon Workspaces (LCW) Berkshire programme, with research, reporting outcomes, and deliverables, satisfying ERDF requirements for a Summative Assessment of funded activities. The evaluation was divided into three constituent parts:



1. An impact evaluation to assess the impacts of LCW Berkshire programme activities on beneficiary businesses, supply chain businesses, key stakeholders, and the environment (Sections 4 and 5).



2. An assessment of programme performance against stated ERDF targets and wider outcomes, including financial performance and achievement of specified targets for unique businesses supported, tonnes of CO<sub>2</sub>e, and securing of necessary match funding. (Section 2)



3. A process evaluation to assess the effectiveness of key processes/mechanisms/approaches implemented to successfully deliver and manage the programme (Section 4).

## Context

Ngage Solutions, has delivered a programme offering small and medium sized enterprises (SMEs) capital grants of between £1,000 and £5,000 (latterly up to £6,000) to help pay for assets that enable beneficiaries to reduce their CO<sub>2</sub> emissions (measured in tonnes of CO<sub>2</sub>e), save money, reduce waste, and improve their environmental credentials.

The programme aimed to support achievement of LEP priorities, which included reducing high energy bills, encouraging renewable energy generation, improving energy efficiency of aged equipment, building stock, and increasing energy security.

Businesses that were interested in, and eligible for, the programme, applied for the match funded grant, which could be used to install various low carbon energy saving measures, including, but not limited to; LED lighting and controls, solar PV, infrared/electric heating, and double glazing. The team at Ngage have supported beneficiary businesses during the application process through completion of a green diagnostic and by providing access to a searchable list of suppliers.

Since its inception in 2017, the programme has been delivered and managed against a backdrop of continual socio-economic instability and uncertainty including the UK's exit from the European Union (EU), the COVID-19 pandemic and successive government-imposed lockdowns and more recently, the rising cost of living, including significant increases to energy tariff and bills.

## Programme delivery changes









While overall programme management and delivery has proven highly effective, the Ngage team have continually identified opportunities to further improve the experience for businesses. This has included:

- **Raising intervention rate for the programme:** This intervention rate was increased from a ratio of 2:1 to 40%, with the expectation that increased affordability would lead to more businesses becoming engaged.
- **Enhancement of the Green Diagnostic Tool (GDT):** which became a two-page report instead of an email. It was hoped that this change would increase business awareness and use of the tool and would offer additional advice and support to continue their journey to net zero.

## Achievements

Despite the challenging socio-economic and political landscape, the programme core team, consisting of Mohammed Abdal, Thomas Macdonald, Mike King, and led by Daniel Cope, has performed exceptionally well as evidenced by its over performance against planned delivery targets<sup>1</sup>.

**Table 1: Performance against ERDF targets**

	Agreed target	Actual	Percentage of target achieved
 <b>Grant funding (£) awarded</b>	£398,605	<b>£398,605</b>	100% 
 <b>Unique SMEs supported</b>	111	<b>113</b>	100% 
 <b>Tonnes CO<sub>2</sub>e reduced annually</b>	500	<b>542</b>	116% 
 <b>Match Funds (£) generated</b>	£750,000	<b>£750,000</b>	100% 

Source: LCW Programme database (June 2023)

113 SMEs have been supported and awarded a total of £398,605 in grant funding. One contributor to reaching the agreed target for awarded funding, was Ngage's decision to transfer £24,000 of revenue funding to provide additional capital grants, demonstrating responsive and efficient programme delivery. Installed measures (of which 40% were LED lighting and controls) are expected to save 542 tonnes of CO<sub>2</sub>e each year, and lifetime carbon savings of 8,130 tonnes of CO<sub>2</sub>e (based on installations operating for 15 years).

<sup>1</sup> Please note, data provided, and analysis completed, for the Value for Money (VfM) assessment, used a slightly earlier version of the LCW Programme database to that referenced in table 1 below. However, inclusion of more recent performance data does not, substantively alter the findings of the VfM assessment provided below, or the in-depth analysis provided in Sections 3, 4 or 5 of the main report.

## Satisfaction

The programme has consistently achieved exceptionally high satisfaction scores from SMEs across several different measures:

- 94% of businesses surveyed were satisfied (82% 'very satisfied') with the overall grant received.
- 93% were satisfied with the energy efficiency measure and the impact the measure had in reducing energy costs.
- Encouragingly, 50% of respondents recommended the programme to others, while 82% would be 'extremely likely' to recommend the programme to other businesses in the future.



**94%**  
SATISFIED WITH  
THE OVERALL  
GRANT RECEIVED



**93%**  
SATISFIED  
WITH ENERGY  
EFFICIENCY  
MEASURE

## Outcomes and Impacts

Assessment of programme impacts was organised into three distinct but interrelated areas: impacts on business beneficiaries, impacts on the local supply chain, and environmental impacts (relating to ERDF requirements and contribution to net zero targets).

### Impacts on businesses and wider stakeholders

- Stakeholders stated that the programme has illustrated the benefits of reducing carbon emissions, while also providing information, advice, and guidance to help businesses to implement actions.
- Our Value for Money (VfM) assessment calculated two sets of financial and societal benefits, based on different scenarios on the possible trajectory of retail fuel prices over the next five years. Based on these calculations:



For every £1 spent (including all grants, match funding, and additional client spend), **£4.26** (scenario 1<sup>2</sup>) or **£4.59** (scenario 2<sup>3</sup>) **has been realised**.



Businesses will enjoy **GVA cost savings** of approximately **£4.7 million** (scenario 1) or **£5.3 million** (scenario 2) over the total lifetime period (15 years)<sup>4</sup>.



Supply chain businesses have seen a one-off **GVA uplift of £131,997**, because of their engagement with the programme.

2 Scenario 1 reflects the current government scenario, where retail fuel prices fall abruptly and return to a 'normal' level by the start of 2025.

3 Scenario 2, which we have created for comparison, assumes that retail fuel prices will remain higher for longer, and that the return to a 'normal' level will be more gradual and take until 2030. In this scenario, predicted cost savings are understandably higher.

4 For the purposes of the VfM assessment, cost savings achieved by businesses are assumed to be converted into profits.



- While not necessarily a 'core' target for the programme, businesses reported savings generated via the measures installed have allowed them to safeguard jobs as they look to survive and recover, post-COVID, the UK's exit from the EU, and rising energy prices. Based on self-reported data from survey respondents<sup>5</sup>:
  - 20% of respondents had safeguarded a total of 19 full-time jobs and 9 part-time jobs, as a direct result the programme.
- 1 in 6 respondents stated that they have provided external and/or internal training to upskill their staff in understanding energy efficiency.
- 1 in 3 respondents stated that installing recommended measures had improved the competitiveness of their business, with 40% of these respondents highlighting an improved working environment, leading to increased staff productivity.
- 46% of respondents stated that the installed measures had made their business more resilient, and 32% had implemented changes to their internal business practices, with the aim of being 'greener' and more energy efficient.
- Stakeholders discussed how the programme had positively impacted on the local supply chain.



*'If we hadn't made savings in power usage, our costs would have been considerably higher, we would have had to increase our prices to cover them, which would have lost us customers. We are more resilient because we have kept a strong customer base'.*

(Business beneficiary – installed electric heating)



## Environmental impacts

In addition to the ERDF targets and expected benefits for participant businesses, the programme also delivered annual pollutant savings for nitrous oxide (NO<sub>x</sub>), carbon monoxide (CO) and particulate matter (PM10).

Based on the latest data, the programme will produce annual carbon savings of 542 tonnes of CO<sub>2</sub>e, and calculated lifetime carbon savings of 8,130 tonnes of CO<sub>2</sub>e (based on installations operating for 15 years).

**Table 2: Per annum pollutant savings**

Nitrous Oxide (kg)	Carbon Monoxide (kg)	Particulate Matter (kg)
93	102	1.5 <sup>6</sup>

Source: LCW Programme data (June 2023) and WM calculations using industry accepted figures and weights for different fuel types.

<sup>5</sup> Required data on jobs created and jobs safeguarded has been collected directly from business beneficiaries during the survey. This evidence is not anecdotal, with respondents asked to state jobs created and safeguarded that can be directly attributed to the LCW Programme activities.

<sup>6</sup> The figure for particulate matter measured in kg, has not changed significantly from that recorded in the interim report (1.2kg), unlike for NO<sub>x</sub> and CO. Earlier in the programme, gas represented a higher proportion of the starting fuel for some projects. The factor for gas is 8 times larger when compared with electricity, which was the starting fuel for more projects after the interim evaluation. The increase after the interim report was calculated based on more electricity projects, thus using the lower factor.

Installations funded through  
the programme have produced  
annual pollutant savings of:

**93kg**  
OF NITROUS  
OXIDE (NO<sub>x</sub>)

**102kg**  
CARBON  
MONOXIDE (CO)

**1.5kg**  
PARTICULATE  
MATTER (PM10)

Data in the table above shows how installations funded through the programme have produced annual pollutant savings of 93kg of nitrous oxide (NO<sub>x</sub>), 102kg of carbon monoxide (CO) and 1.5kg of particulate matter, all of which are harmful to the environment<sup>7</sup>. These savings will positively impact on the air quality in the programme area and contribute to targets set out in the UK Government's 2019 Clean Air Strategy.

## Programme attribution

Survey responses were used to assess what would have happened in the absence of the programme and its grant funding.



2 in 5 beneficiaries stated they would have been 'unlikely' to complete the project without the grant, with a similar proportion (44%) stating it would have been 'likely'.

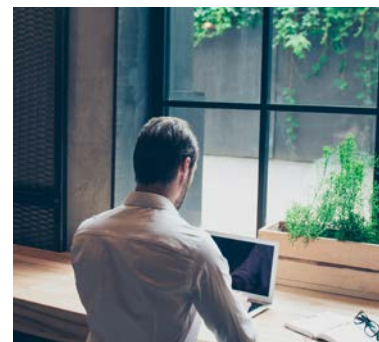


More than half (55%) stated it would have taken longer in the absence of the grant (compared with 36% of businesses that did not believe the project would have taken any longer to complete).



Almost half (45%) stated their project outcomes would have been 'worse' (including 36% stating 'a lot worse'), a third (32%) stated the outcomes would have been 'similar' and only 5% felt the outcomes would have been 'a little better'.

- Stakeholders echoed respondent opinion on the importance of the grant, reporting:
  - Availability of grant funding acted as a driver for businesses to invest in their projects.
  - Grant funding reduced the associated financial risk of investing in new installations, incentivising businesses to engage.
  - Through reducing their capital outlay, the grant has allowed businesses to more rapidly re-coup the money they have invested and begin to realise the savings more quickly.



<sup>7</sup> Nitrous Oxide is a potent greenhouse gas that contributes to warming the atmosphere about 300 times more than CO<sub>2</sub> over a 100-year timescale. Carbon Monoxide's effects on the environment include acid rain, air pollution, damage to plants and decreased visibility. The presence of Particulate Matter causes decreased levels of water evaporation from the world's oceans, accumulation on the ground and in water and decreased visibility.

## Programme delivery and management

- Businesses and wider stakeholders praised Ngage<sup>8</sup>, for their overall management and delivery of the programme, in the face of difficult socio-economic and political conditions. Describing the team as “enthusiastic”, “approachable”, “knowledgeable”, “responsive” and “professional”.
- Ngage continually reviewed and adapted the focus and tone of key messages in marketing and promotional materials to maintain relevance.
- Direct marketing techniques were highly effective in raising awareness of the programme and in securing engagement from businesses. Use of social media platforms were also a cost effective and efficient mechanism to reach large numbers of businesses.
- Case studies (including video case studies) were widely praised for demonstrating financial and/or infrastructural benefits of engaging with the programme.
- The application process was simple, and straightforward application process for businesses to follow. The entire process, from receipt of application to award of funding, could be completed within three to ten days, allowing businesses to rapidly progress their projects.
- Changes to the Green Diagnostic Tool (GDT)<sup>9</sup>, made in the latter stage of the programme, were viewed as positive, however more could have been done to raise awareness of it among businesses, with only 7% of survey respondents stating they had used it.
- The decision to increase the intervention rate to 40% of total project costs allowed the programme to allocate larger grants and increase engagement from local businesses.

## Lessons learned

While the LCW SMILE Programme has undoubtedly been a success, the evaluation did identify the following lessons that could be applied to existing and future Growth Hub and LEP business support initiatives:

- The final 3 to 6 months of delivery saw an influx of applications that placed additional resource pressure on LCW programme staff, including business advisers. We would recommend introducing a review of workload during this period and increasing the number of staff, if needed, to ensure that all applications and funding allocations can be processed within an acceptable timeframe.
- Ngage were struggling to recruit and retain staff, in particular roles, due to lower salaries when compared with similar roles in other sectors. To address this, we would recommend a salary review and, if possible, an increase in salaries offered to make them more attractive and appealing to individuals who have the required technical skills and experience.
- With awareness of the Green Diagnostic tool being so low among businesses surveyed (7%) we would recommend a more effective awareness raising and promotional campaign that clearly signposts businesses to the tool and details the benefits of using it.

<sup>8</sup> Including marketing, finance, data, and Human Resources (HR) for their overall management and delivery of activities.

<sup>9</sup> The programme uses the Green Diagnostic Tool (GDT) to advise SMEs on different options for further lowering their carbon emissions. Initially, this took the form of an email sent out to businesses prior to their application being submitted to the grant panel. Following feedback, a revised version of the Green Diagnostic contained greater detail on the projects that could be carried out, together with guidelines and signposts to further resources.



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## 1.0 Context

This section outlines the rationale and aims for the Low Carbon Workspaces (LCW) Berkshire programme and provides an overview of the profile of the businesses that received support through it.

### 1.1. Rationale

Delivered by Ngage Solutions, the LCW Berkshire programme has offered SMEs capital grants of between £1,000 and £5,000 (later increased to £6,000) to help pay for assets that enable beneficiaries to reduce their CO<sub>2</sub>e emissions (measured in tonnes of CO<sub>2</sub>e), save money, reduce waste, and improve their environmental credentials. Businesses used this grant funding, alongside match funding<sup>10</sup>, to buy and install an array of measures (ranging from small-scale adaptations, such as installing LED lighting and controls, to larger scale solar PV installations and boiler/heating replacements) that aim to deliver the impacts listed above. As will be discussed further in this report, while saving money is always a commercial imperative for businesses, recent energy price increases, combined with the rising cost of living, and supply chain costs, has placed even more emphasis on finding different ways to make further savings.

Alongside the readily quantifiable Impacts on a business' bottom line costs, it was also expected that engagement with the LCW programme would change business behaviour, via 'nudging'<sup>11</sup> them towards reducing their CO<sub>2</sub>e emissions and improving their awareness and knowledge of the net zero agenda. The nudge focuses on mitigating some of the barriers that SMEs face in implementing low carbon initiatives, such as the prohibitive cost of the measures and accessing technologies and components via the supply chain. It also focuses on a 'core' message of the LCW programme saving businesses money.



*'The language that the programme uses in the marketing materials gets straight to the point and clears through all the white noise. The programme recognises that businesses respond best to messages that resonate with them and interventions that they perceive will be a solution to a problem they are currently having. It is all very real, and they make it relevant to businesses'.*

(LCW programme stakeholder)

<sup>10</sup> Business beneficiaries were expected to match fund the ERDF grant money allocated, initially at a ratio of 2:1. For every £1,000 of grant funding, the business was expected to contribute £2,000 in match funding. Later in the programme, and a result of a Project Change Request (PCR), the intervention rate increased to 40%, which allowed larger grants to be awarded with lower expectations on match funding.

<sup>11</sup> A nudge is any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. [https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/nudge/#:~:text=6\)%2C%20a%20nudge%20is,Nudges%20are%20not%20mandates](https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/nudge/#:~:text=6)%2C%20a%20nudge%20is,Nudges%20are%20not%20mandates).

At the time of its introduction, it was expected that the programme would support the delivery of Thames Valley Berkshire LEP's priorities, which included addressing:

- **High energy bills** that were resulting in a disproportionate level of cost for businesses and stifling UK's productivity and competitiveness.
- **Low renewable energy generation**, although significant strides have been made to redress the balance, with approximately '43% of our [the UKs] power coming from a mix of wind, solar, bioenergy and hydroelectric sources'<sup>12</sup>
- **Poor energy efficiency of aged building stock.** According to the Institute for Government<sup>13</sup>, UK businesses and homes are among the least efficient in Europe, while the former Department for Business, Energy & Industrial Strategy (BEIS)<sup>14 15</sup> 'argues that 'improving the energy efficiency of UK buildings is the quickest way we can support families and businesses to respond to rising energy prices'.
- **Poor energy security. During the second half of 2022**, numerous economic studies were commissioned to consider the UK's reliance on gas importation, specifically from Russia. These studies found that the UK is among the most exposed countries in Europe to surging gas prices. 'Although the UK is not directly reliant on Russian gas, it is unusually heavily reliant on gas for heating of its homes and buildings... Gas prices are set to remain high throughout 2023, and be volatile beyond that, which suggests that the UK will remain vulnerable as long as it is highly dependent on gas. Improving energy efficiency could make a much bigger difference than energy supply measures in the medium-term'.
- **The UK's high carbon footprint, within the context of carbon net zero:** According to the Office for National Statistics (ONS)<sup>16</sup> the UK emits around twice the average CO<sub>2</sub>e emissions of the EU14<sup>17</sup> countries combined, although these emissions have been steadily declining since 2010. The UK emits around 400MtCO<sub>2</sub>e, second behind Germany who emit approximately 700MtCO<sub>2</sub>e.



<sup>12</sup> 'Energy Explained'. The National Grid Group PLC, 23rd February 2023. <https://www.nationalgrid.com/stories/energy-explained/how-much-uks-energy-renewable>

<sup>13</sup> 'Tackling the UK's energy efficiency problem'. Institute for Government, September 2022. <https://www.instituteforgovernment.org.uk/sites/default/files/publications/tackling-energy-efficiency-problem.pdf>

<sup>14</sup> The Department for Business, Energy & Industrial Strategy (BEIS) was replaced by three new Government departments: The Department for Energy Security and Net Zero, the Department for Science, Innovation and Technology, and the Department for Business and Trade.

<sup>15</sup> 'Energy efficiency: what you need to know: How the UK government is helping to improve energy efficiency'. Department for Business, Energy & Industrial Strategy (BEIS), 7th April 2022. <https://www.gov.uk/government/news/energy-efficiency-what-you-need-to-know>

<sup>16</sup> 'Greenhouse gas emissions and other environment measures, UK and European countries: 2020'. Office for National Statistics, 14th November 2022. <https://www.ons.gov.uk/economy/environmentalaccounts/articles/comparinggreenhousegasemissionsukandeuropeancountries/2020#:~:text=Carbon%20dioxide%20emissions,-Total%20EU14%20and&text=On%20total%20CO2%20emissions%2C%20the,of%20the%20EU14%20countries%20combined>

<sup>17</sup> The EU14 includes the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Republic of Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and Sweden.



## 1.2. Wider delivery context

Ngage secured European Regional Development Funding (ERDF) to deliver the programme in 2019, with support to businesses commencing in 2020.

This is not the only programme to have used the Low Carbon Workspaces title at Ngage, who have delivered several others under this name including:

- An unrelated (although still environmentally focused) predecessor to the scheme was implemented in 2016
- Smart Measures in Local Enterprise (SMILE) began in 2017, under the name Low Carbon Workspaces.
  - Phase 1 of SMILE was delivered between 2017 and 2019 and offered a package of support to SMEs in Buckinghamshire, Hertfordshire, and The Black Country LEP areas. This phase has concluded and been previously evaluated.
  - Phase 2 of SMILE commenced in 2020 and finishes at the end of August 2023. Whilst a distinct and separate contract to LCW Berkshire, the two were run in tandem, and ran using the same methods and processes - operationally as one overall programme. Phase 2 of SMILE delivered support within Buckinghamshire and Hertfordshire LEPs (from March 2020), as well as South East Midlands LEP (from November 2020). The Black Country was not supported in phase 2.

Throughout programme delivery, there have been social, economic, and political changes that have posed challenges for key decision makers and those in Ngage with responsibility for programme management and monitoring. As the introductory video to the LCW programme argues:



*'Our planet faces significant and long-term social, economic and environmental challenges. Businesses are now doing more than ever to reduce their impact on our environment in order to create and drive innovation for a new low carbon economy; an economy that is cleaner, greener and more resilient'.*

(LCW programme team – from promotional video)



During the last three years, in particular, the unprecedented combination of the UK's exit from the EU, the long-lasting detrimental impacts of the COVID-19 pandemic, and more recently, the cost of living crisis, have created continued uncertainty for UK businesses, particularly SMEs, many of whom may lack the financial, operational, and market security to tackle one, let alone multiple and concurrent economic shocks.

### 1.2.1 COVID-19 pandemic

For some of the UK's most significant and commercially important employers, the short-term impacts of the pandemic had converged with longer-term restructuring challenges to deliver sustainable growth. The decline in turnover and revenue, when combined with the continuation of fixed costs, such as rent and staff wages, had left many businesses with no option but to use cash reserves to continue making these payments. The resultant squeeze on cash reserves led to businesses taking the difficult decisions to reduce their planned investment; investment that could well have been targeted at starting, or progressing, their journey to net zero.

### 1.2.2 Exiting the European Union

The UK's exit from the European Union (EU), on January 1<sup>st</sup>, 2021, provided businesses, especially those reliant on international trade and the import/export of raw materials, goods, and services, with largely unknown legislative changes and new processes and procedures to navigate. Not long after the exit, a Federation of Small Businesses (FSB) survey<sup>18</sup> of 1,400 UK businesses, found that:

- Almost a quarter (23%) of exporters had temporarily halted their sales to EU customers, while a further 4% had decided to permanently stop selling to the bloc after the new trading rules took effect.
- More than half (55%) of respondents had already sought professional advice to assist them with new paperwork pertaining to EU business activity.



<sup>18</sup> 'One in four small exporters halt EU sales, three months on from transition end, new study finds'. Press Release, 29th March 2021 <https://www.fsb.org.uk/resources-page/one-in-four-small-exporters-halt-eu-sales-three-months-on-from-transition-end-new-study-finds.html#:~:text=A%20new%20FSB%20survey%20of,the%20start%20of%20this%20year>.



### 1.2.3 Challenging economic conditions

In the last twelve months, the UK Government, and the Bank of England<sup>19</sup>, have been battling to bring inflation under control which, at the time of writing this report, currently stands at 7.8%<sup>20</sup>. The ongoing conflict in the Ukraine has led to a rise in gas prices and the price of some basic foods, like wheat, while price pressure is also coming from businesses that are charging more for their products because of higher costs. The base interest rate has increased from 0.5% in December 2021, to 5% following the latest increase this June. While the Bank of England is predicting inflation to fall quickly to 5% by the end of 2023, and to fall further to their target of 2% by the last quarter of 2024, this does not necessarily mean that prices will fall, although they may stop increasing so quickly.

In the face of the above socio-economic pressures, UK small businesses could have been forgiven for focusing solely on short-term survival, however the most recent cost of living increases and rising energy costs, when combined with supply chain delays and higher costs of product/materials imports,<sup>21</sup>, have acted as a catalyst for SMEs to actively seek out financial support and capital interventions that can have a direct impact on their business costs. Small businesses need to position themselves to take advantage of a recovery in incomes, assuming that inflation does fall back as the Bank of England forecasts over the next year.

<sup>19</sup> 'Monetary Policy Report: May 2023'. Bank of England. <https://www.bankofengland.co.uk/monetary-policy-report/2023/may-2023>

<sup>20</sup> 'Consumer price inflation, UK: May 2023'. Office for National Statistics, Release date 21st June 2023. <https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumerpriceinflation/may2023#:~:text=The%20core%20CPIH%20annual%20inflation,down%20from%2010.0%25%20in%20April.>

<sup>21</sup> According to the Simply Business SME Insights Report, an annual study of challenges and trends in the small business sector, 70% of 1,013 surveyed small business owners state rising costs as their biggest challenge, 59% want government to review or further reduce the energy price cap. <https://www.simplybusiness.co.uk/downloads/sme-insights-report-2022.pdf>



### 1.3. LCW Programme overview

The team at Ngage set out to help SMEs lower their carbon footprint, save money, reduce waste, and improve their environmental credentials. Interested and eligible businesses apply for a match funded grant that they can use to install various low carbon energy saving measures, including LED lighting and controls, solar PV, and infrared/electric heating. With grants ranging from £1,000 to £5,000 (later rising to £6,000), businesses can recover up to a third (latterly 40%) of the cost of these energy saving measures, which reduces the upfront cost and the time taken to recover their investment.

The team at Ngage, including business advisers, and delivery partners, have been available to identify what improvements businesses could make, from small to large scale projects, and to provide information on all the benefits they can access by 'going green'. These benefits include saving money, cutting energy bills, reducing their carbon footprint, improving their work environment, boosting eco-credentials, engaging, and training staff, driving innovation, and increasing productivity.

More specifically, the business advisers have supported businesses by:

- Assisting with completion of the two-page application, which was downloadable from the LCW website.
- Providing a Green Diagnostic report that includes an assessment of the impact of a potential measure and, more recently, information on future measures or interventions that businesses can implement to build on the outcomes from LCW.
- Access to a searchable list of suppliers that uses postcodes to find the nearest approved supplier. Businesses can search for suppliers under 8 categories or intervention types, including renewable energy technologies and battery storage.

As one business beneficiary states in an LCW promotional video:



*'It is not all about the funding, it is about someone who can take you by the hand and see us through, especially for SMEs. The LCW team were very helpful, very supportive. By completing the projects, we have created a much better workplace for our employees'.*

(Business beneficiary)



THE LCW  
PROGRAMME SET  
OUT TO HELP SMES  
LOWER THEIR  
CARBON FOOTPRINT,  
SAVE MONEY AND  
REDUCE WASTE

### 1.3.1 Application process

The process for applying and installing funded technologies/interventions is summarised into six stages:

1. Downloading the application from the LCW website.
2. Planning the project and obtaining a supplier quote for the proposed work.
3. Submitting the application (along with quotes and energy bills) to a member of the LCW programme team.
4. Receiving a decision from the grant panel within 5 days.
5. Approving the application and ensuring the chosen supplier completes the work.
6. Claiming the grant money, which is paid to the business within 30 days, pending provision of evidence (in the form of photographs of the installation, bank evidence of payment, and invoices confirming the work has been completed).

### 1.3.2 Programme targets and objectives

The core deliverable from the LCW Berkshire programme was to provide grants to eligible local businesses. A total of £398,605 of grants were awarded, with a further £750,000 of match funding achieved.

**Table 3: Commitment of funds by LEP area**

Contract	LEP area	Grant Funding (£)	Match Funding achieved
LCW Berkshire	Thames Valley Berkshire	£398,605	£750,000

Source: Interim LCW Evaluation report, 2021.

The programme was also expected to meet targets for the number of SMEs supported, the reduction in CO<sub>2</sub>e and securing private match funding from supported SMEs, as shown in table 4 below.

**Table 4: Contract requirements**

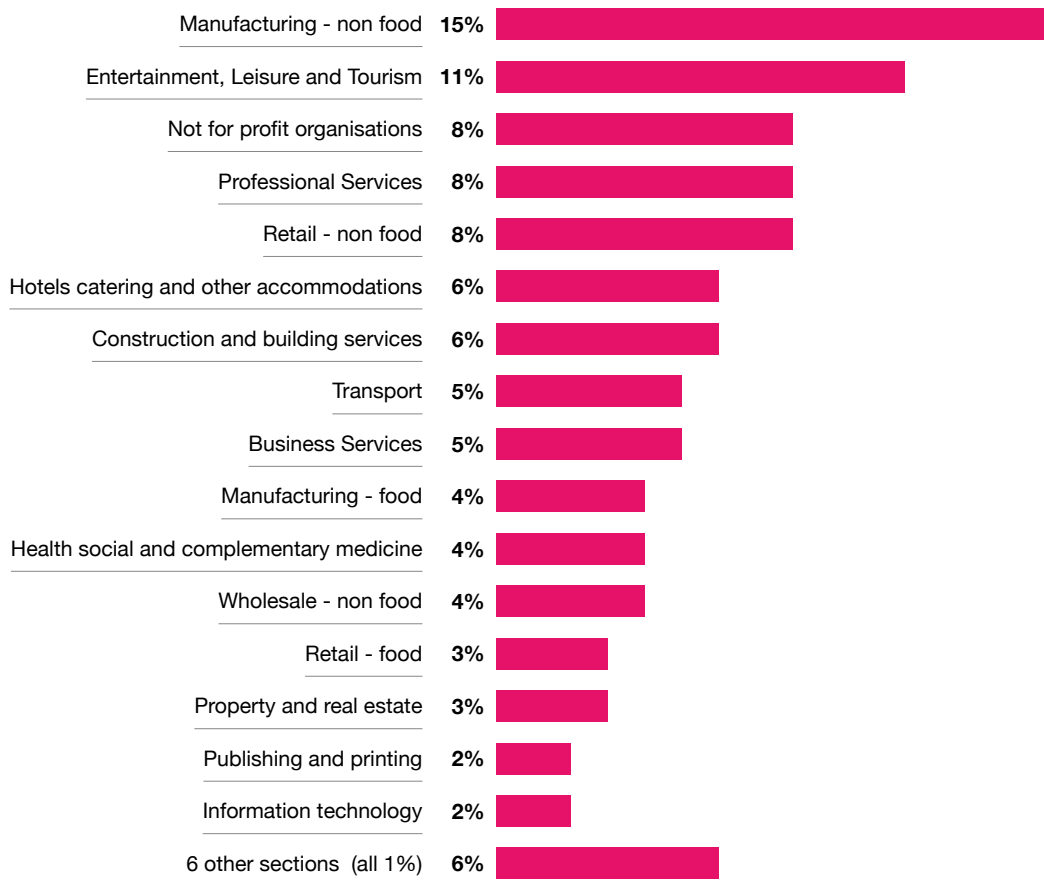
Contract	LEP area	Target: SMEs supported	Target: Tonnes CO <sub>2</sub> e saved	Private match funds generated by businesses
LCW Berkshire	Thames Valley Berkshire	111	500	£750,000

Source: Interim LCW Evaluation report, 2021.

## 1.4. Profile of supported SMEs (Berkshire)

A total of 113 businesses have received grants through the LCW Berkshire programme. The profile of supported SMEs, by sector, is detailed in figure 1 below.

**Figure 1: Breakdown of businesses supported by sector.**



Source: LCW Programme database (June 2023) N=111

The top 5 sectors receiving grant money has remained consistent throughout the duration of the programme, with 1 in 6 (15%) businesses being from the manufacturing sector, and 11% from the entertainment, leisure, and tourism sector. Manufacturing companies find themselves on the ‘frontline’ of sustainability, in part because their customers are increasingly demanding cleaner, low carbon products<sup>22</sup> and they are heavily impacted by rising energy bills and the higher costs of raw materials. With the leisure and hospitality sectors suffering the most from COVID-19 government restrictions, it is unsurprising that these businesses have also been proactive in making cost savings, wherever possible.

<sup>22</sup> ‘Building Sustainability into operations’. McKinsey & Company, October 19, 2022. <https://www.mckinsey.com/capabilities/operations/our-insights/building-sustainability-into-operations>



As with the sector breakdown, the turnover, size, and ‘maturity’ of SMEs supported has also remained consistent:

- 56% of businesses reported an annual turnover of between £501K and £5m, while 38% stated a turnover of between £0 and £500,000.
- 64% of businesses employed between 6 and 50 staff and 31% were categorised as ‘micro-businesses’, employing between 1 and 5 staff.
- 70% were classified as ‘sustain’<sup>23</sup>, 23% as ‘aspiration’ with the potential for significant growth of 50% over the next three years, and 7% were start-up businesses.

### 1.4.1 Prior knowledge and understanding of low carbon and net zero agenda

According to several stakeholders, businesses that have shown an interest in and/or received grant funding, could be categorised based on their prior knowledge and understanding of the low carbon and net zero agenda, and on their previous experience of installing low carbon technologies and initiatives. At one end of the spectrum, there were those businesses that were ‘starting on their journey to net zero’; businesses that were beginning to understand the importance of lowering carbon emissions and were taking notice of the financial benefits of doing so but had little or no knowledge of where to start. At the other end of the spectrum were businesses that were already well immersed in the net zero agenda, had a detailed understanding of the national and local policy landscape, and had already implemented several changes or initiatives in their businesses. They were looking for practical and financial support to implement larger scale and more expensive changes.



*‘We have seen two types of business beneficiary, those that are in a strong financial position and who aren’t necessarily cash rich but who are recognising LCW as a means to support investment that will allow them to future-proof themselves and to obtain that energy security. There are also those businesses, at the other end of the spectrum, that are pretty desperate and are in dire need of reducing their energy bills. They have recognised LCW as a means to mitigate these costs’.*

(LCW programme team)

Since the onset of the cost of living crisis, rising energy prices and supply chain challenges touched on earlier, there have arguably been a higher proportion of businesses from the second category, that have sought support from the programme to reduce their energy bills, however, it was argued that a strength of the programme has been its ability to support a wide array of businesses, across all eligible sectors and businesses with differing levels of engagement and understanding of low carbon and net zero.

<sup>23</sup> The LCW programme categorised businesses on the level of business maturity, from start-up, sustain, and high growth/growth aspiration.

## 2.0 Progress









This section uses the evidence collected from monitoring data to provide a summary of programme performance now that all projects/installations have been completed and monitoring information has been provided to Ngage Solutions.

### 2.1. Overview

#### 2.1.1 Grants awarded

The programme has performed well against all agreed ERDF funding and output targets. At the time of programme closure 113 SMEs have been awarded a total of £398,605 in grant funding, while installed measures are expected to save 542 tonnes of CO<sub>2</sub>e each year. Accounting for changes in the intervention rate, businesses secured £750,000 of match funding to support the implementation of projects.

**Table 6: Performance against contract targets (programme lifetime)**

	Agreed target	Actual	Percentage of target achieved
 <b>Grant funding (£) awarded</b>	£398,605	£398,605	100% 
 <b>Unique SMEs supported</b>	111	113	102% 
 <b>Tonnes CO<sub>2</sub>e reduced annually</b>	500	542	116% 
 <b>Match Funds (£) generated</b>	£750,000	£750,000	100% 

Source: LCW Programme data (June 2023)

The above figures are based on actual savings as all measures have been installed prior to programme closure.

## 2.2. Adjustments to project design

The LCW programme delivery model was tried and tested and as will be discussed and evidenced later, worked effectively throughout. Despite the overall effectiveness of LCW delivery, Ngage have continually identified opportunities to further improve the experience for businesses. In the last 18 months, the following adaptations to programme delivery have been made:

- **Changes to the intervention rate of the programme:** The intervention rate was increased to 40%. When the intervention ratio was 2:1, this was challenging for smaller businesses that would need to find £2,000 match funding to receive £1,000 of LCW grant funding. It was expected that the increase to 40% would improve affordability and lead to more businesses engaging with the programme. Several stakeholders also argued that the change in the intervention rate was needed to bring the LCW rate in line with other programmes that Growth Hubs were running.
- **Enhancement of the Green Diagnostic Tool (GDT):** which has now become a written report instead of an email. It was hoped that this change would increase business awareness and use of the tool, and it would provide additional advice and support to continue their journey to net zero, following the conclusion of their engagement with LCW.
- **Regular reviewing of marketing and promotional communications** to ensure key messages remained constantly relevant to businesses and their immediate needs. Materials have been adapted to highlight how engagement with LCW could address businesses' ongoing concerns about rising energy prices and the impact of this on costs, profitability, and productivity.
- **During the COVID-19 pandemic, adapting marketing, promotional and business engagement strategies to reflect the needs and interests of businesses.** Investment opportunities, during the COVID-19 pandemic were a priority for small businesses and engagement in the LCW programmes and other business support programmes, was inevitably dependent on ensuring appropriate messaging. The LCW programme team continually reviewed not only their messaging, but also their engagement and delivery processes to ensure programme relevance, accessibility and that it remained relevant. Financial motivations drive business engagement



*'We have undoubtedly seen an increase in businesses approaching us for a grant, when compared with numbers contained in the interim evaluation, and there is more focus on reducing energy costs wherever possible'.*

(Growth Hub representative)

When asked to state their main motivations for engaging with the programme, two were most identified:

- Financial motivations were selected by 60% of respondents (compared with 50% in the interim evaluation), including 38% who stated motivations directly related to rising energy costs and energy cost savings, and 22% who were looking for more general ‘financial support’.
- Environmental motivations, which were important for a quarter (24%) of respondents (compared with 43% in the interim evaluation), with 12% respectively interested in improving their energy or environmental performance, and in reducing impacts on climate change, air quality and natural resources.



*‘The energy crisis has continued to hammer businesses and costs are very reactive, they don’t pay for energy in the same way as domestic users. In September 2022, businesses didn’t fully recognise the impact it was about to have, and by January, traditionally a terrible month for scheme interest, we were exceptionally busy [with enquiries about the programme].’*

(LCW programme team)



*‘Businesses have become more concerned with reducing their energy costs, rather than reducing their carbon footprint. You haven’t had to motivate them to engage, like earlier in the programme, they have come to us.’*

(Stakeholder, LCW Berkshire programme)





## 2.3. Businesses implement array of actions

Table 7 below provides a breakdown of the most common measures awarded funding through the programme. Of the 113 businesses supported, 19% installed multiple measures. Approximately three quarters (74%) of survey respondents stated they had been considering making changes to improve their business' energy efficiency before hearing about the programme.

**Table 7: Breakdown of most common measures awarded funding (Berkshire)**

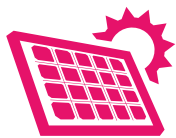
Measure	% of all measures
LED lighting & controls	45%
Solar PV	17%
Glazing	11%
Electric heating	6%
Boiler & controls	4%
Equipment upgrade	4%
Insulation	3%
Air source heat/cooling	3%
Water reduction	2%
Other	1%
Refrigeration equipment	1%
Destratification fans	1%
Waste recycling tech	1%
Gas air heating	1%

Source: LCW Programme data (June 2023). Percentages in the above table have been calculated using a negligibly lower number of measures, but this has had no substantive impact on proportions.

As the table shows, 45% of all measures installed were LED lighting and controls. Stakeholders expected this type of measure to be the most popular since installation is easier and the impacts on carbon emissions and the workplace environment are more immediate. Given the ease of installation, LED lighting and controls became more popular in the last months of programme delivery, as projects could be approved and completed quickly and efficiently.



**45%**  
LED LIGHTING &  
CONTROLS



**17%**  
SOLAR PV



**11%**  
GLAZING



Solar PV was responsible for 17% of installed measures, although applications for solar panels declined in the last months of the programme, due to long lead in times for receipt of panels and parts, and the time needed to secure permission from the local Distribution Network Operator (DNO).

With 80% of the current building stock predicted to still be in use by 2050, it is encouraging that double glazing (11%), electric heating (6%) and boiler and controls (4%) were among the top measures installed. This highlights the success of the programme in promoting these ‘building infrastructure’ measures to businesses, particularly given they are comparatively more expensive and take longer to install. According to stakeholders, other schemes were not promoting double glazing and insulation because they considered the cost savings to not be big enough. Changes to Energy Performance Certificate (EPC) regulations, which now require all landlords of privately rented non-domestic premises to obtain at least an EPC E rating (unless they have a valid exemption)<sup>24</sup>, have made these interventions more important. The LCW programme team were also pleased to see the installation of infrared heating projects:



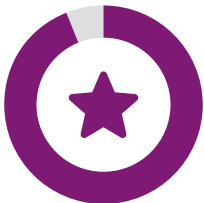
*‘Take up of heating installations was a particular positive for the programme. Encouraging businesses to switch from gas to electric is a difficult sell, so it was good to see the success we had with these installations’.*

(LCW programme team)

<sup>24</sup> ‘Non-domestic private rented property: minimum energy efficiency standard – landlord guidance’, Department for Energy Security and Net Zero, 13th April 2023. <https://www.gov.uk/guidance/non-domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance>

## 3.0 Outcomes and impact

While consideration of performance, and achievement of outcomes is an important measure of LCW programme success, the additional, tangible value of the programme is found in the impacts and benefits that businesses have seen, following receipt of the grant and completion of the installation/intervention. This section focuses primarily on overall satisfaction with the programme, and on identifying and discussing these business impacts, alongside supply chain, and wider environmental impacts, from the perspectives of the businesses surveyed, and the stakeholders interviewed.



**94%**  
SATISFIED WITH THE  
OVERALL GRANT  
RECEIVED



**53%**  
RATED THEIR  
EXPERIENCE WITH  
THE LCW BERKSHIRE  
PROGRAMME AS  
BETTER THAN OTHER  
GRANT SCHEMES

### 3.1. Beneficiary satisfaction

The programme has achieved high satisfaction scores from SMEs across several measures. Almost all businesses (94%) were satisfied with the overall grant received, with 82% stating they were 'very satisfied' (compared with 70% who were 'very satisfied' in the interim evaluation). Although discussed in greater detail later, some of the key contributors to this satisfaction included the:

- Impacts businesses have realised following their involvement with the programme.
- Responsiveness, knowledge, and enthusiasm of the LCW programme team.
- Simplicity of the application process.

Businesses were also asked the extent to which they agreed with the following statements about receiving the grant money:

- Almost all, (93%) agreed that the time between making the application and receiving the money was reasonable.
- Slightly more than three quarters (77%) agreed that the amount of funding received was sufficient for what they wanted to do. This compares with 80% of all respondents agreeing at the interim phase, reflecting the severity and impact of cost of living increases and rising energy prices on businesses' propensity to invest.

Among the 34% of businesses that had accessed other grant schemes in the past, more than half (53%) rated their experience with the programme as better (with 18% stating it was 'a lot better'). No businesses rated their experience as worse.



### 3.1.1 Businesses satisfied with the installed measure(s)

Mirroring overall levels of programme satisfaction, 93% of respondents were satisfied with the energy efficiency measure and the impact the measure has had in reducing energy costs, increasing energy efficiencies, and in creating a more productive working environment for staff. Several respondents also highlighted the accuracy of the predicted savings set out in the energy tracker and Green Diagnostics Tool (GDT).



*'We are saving money on energy costs, and it is good to know that, at the same time, our measures are more efficient and less polluting'.*

(Business beneficiary – installed refrigeration equipment)



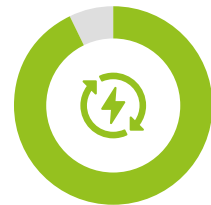
*'The measure [solar PV] is producing a lot of energy – we are generating between 3.5kWh and 5kWh a day. We are exporting a lot of this [to the grid] as we don't yet have the most efficient system. We are hoping to change the system to 'one phase', which means we will benefit more [financially] from the power we are producing and we can use that power to charge our electric vehicle'.*

(Business beneficiary – installed Solar PV)



*'We even have a certificate from Low Carbon Workspaces to say that we saved 2.5 tonnes of CO<sub>2</sub>e each year, which is the equivalent to the weight of two walruses'*

(Business beneficiary)



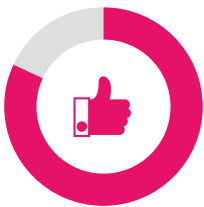
**93%**  
SATISFIED WITH  
ENERGY EFFICIENCY  
MEASURE





### 3.1.2 Businesses recommending the programme to others

Word of mouth, including recommendations from business beneficiaries, has been an important marketing tool and source of referrals for the programme and its activities, with 26% of beneficiaries hearing of the programme via this route. The propensity of business beneficiaries to recommend the programme to others is also a useful proxy indicator of satisfaction. Encouragingly, 50% of respondents had already recommended the programme to others (up from 40% at the time of the interim evaluation), while 82% would be 'extremely likely' to recommend the programme to other businesses in the future. The following quotes detail some of the reasons why they would recommend the programme to others:



**82%**  
**'EXTREMELY LIKELY'**  
**TO RECOMMEND**  
**PROGRAMME**

“

*'It is good for businesses to be more energy efficient. We have been able to attract more customers because of our environmental credentials and, added to that, it is good for the environment. Why wouldn't you want to pass those benefits on to others'.*

(Business beneficiary – installed solar PV)

“

*'Addressing the bigger issue of climate change and increasing the use of renewable energy needs everyone to get involved, so we want to see other people impacting on the environment in a positive way'.*

(Business beneficiary – installed electric heating)

## 3.2. Business benefits

Two facets of their programme experiences have prompted businesses to rate their satisfaction as highly as detailed above. Firstly, because of implementing recommended actions, businesses have identified several positive impacts relating to cost savings, reductions in energy use and carbon emissions, improvements to overall business performance and creation of a more productive working environment. Secondly, and as will be discussed in the next section, businesses have praised the delivery and management of the programme and the role of Ngage, the Growth Hub and delivery partners in facilitating a positive experience throughout their engagement.



*'The team were a lot of help, it wasn't just the money. It was also the interactive, practical advice. They have guided us through the whole process and given us advice on the equipment.'*

(Business beneficiary – installed solar PV)

### 3.2.1 Improving financial 'bottom line': Energy cost savings

One of the objectives, and expected outcomes, of the programme, is for the funded installations to impact positively on the businesses' financial bottom line, specifically via reductions in primary energy use and associated energy cost savings.

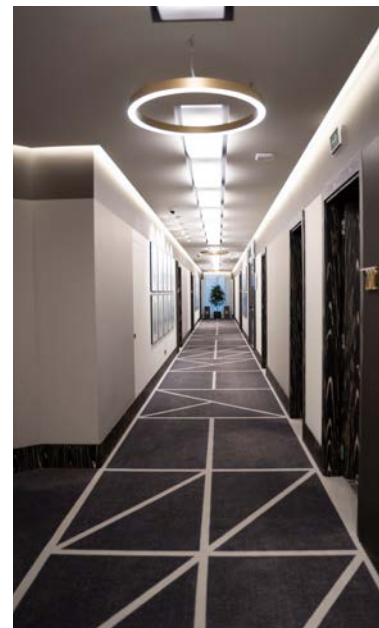
#### Real and tangible energy cost savings

Stakeholders and business beneficiaries argued that the key to achieving savings would be predicated on making them real and tangible for businesses.



*'For me, the key point has been the reality of the impacts on the business. By identifying genuine cost savings, businesses can see the impact on their bottom line, as well as the reduction in carbon emissions they will make. This has been a strength of the programme'.*

(LCW programme team)



“

*‘We are a small business and have limited time that we can spend on these sorts of programmes. What sold it to us was the evidence of immediate savings. The team could clearly illustrate how the grant had benefited other businesses. We were also interested in the diagnostic work and understanding how the measure could impact us before we had dedicated any time to it. I think that is invaluable’.*

(Business beneficiary – LED lighting and controls)

As the business beneficiary above alludes to, a crucial tool for showing tangible financial impacts has been the Energy Savings Calculator, which has allowed the programme to illustrate the cost savings for different interventions and/or technology types, tailored to the business being supported. In presenting these calculations to key decision makers, businesses can accurately predict the cost savings and wider benefits they will receive, making them more likely to engage with the LCW programme team and see their project through to completion:

“

*‘In terms of calculating savings we have, over time, built quite a lot of calculators so, depending on the technology that is being installed, you can input various parameters and forecast projections’.*

(LCW programme team)

“

*‘Based on technical performance and savings data collected for previous installations and technology types, and information provided to us in the application, we can calculate a percentage saving that will closely reflect actual savings once the product has been installed’.*

(LEP representative)

### **Evidence of energy cost savings**

“

*‘The energy cost savings that businesses have reported is something that fills us with pride. During the energy crisis we have been able to collate evidence showing that LCW has saved businesses more than £2,000,000 on their annual energy bills*

(LCW programme team)

The above quote reflects the dominant view of stakeholders on the energy savings generated through LCW. This perspective is supported via performance data for the programme, which shows total GVA savings of £4.7 million, equating to £42,700 per business that has engaged and implemented recommended measures.



In addition to these cost savings, survey respondents were asked to state whether ‘accessing the grant and implementing the measure had prompted them to have a greater focus on energy savings. Almost 1 in 3 businesses (32%) stated that their involvement had encouraged a greater focus on energy savings, and in several instances, prompted businesses to start working towards ISO environmental accreditations:



*‘We reviewed other areas of the building and different processes and operations with a view to working through these to increase energy savings and reduce our carbon emissions’.*

(Business beneficiary – installed solar PV)



*‘We have a company ‘Green Team’ that meets regularly to discuss other practices that can be implemented across all sites. More recently, and since we installed our measures, we have been looking at what we can do to support achievement of ISO 14001’. Having this accreditation would do wonders for our relationships with new and existing customers’.*

(Business beneficiary – installed boiler)

### 3.2.2 Positive behavioural change towards energy efficiency and carbon emissions, but still more to do

Respondents were asked several questions aimed at determining the role of the programme, and the cost of living crisis in improving staff understanding of key environmental issues and how their engagement with the programme had influenced decision making on environmental benefits and carbon savings. Firstly, respondents were asked whether the programme had improved the business’ understanding of energy efficiency, carbon emissions reduction and climate change. More than half (56%) stated that it had, with 38% stating no. Of greater significance to influencing their understanding was the energy price rises, with 70% stating their understanding had improved.

Respondents were asked whether accessing the grant had made environmental benefits more important in their decision making. 62% stated that such issues were of greater importance:



*‘We have been conscious of our impact and knew that lighting was something we really needed to change but it has prompted us to look at other options like solar’.*

(Business beneficiary – installed LED lighting and controls)



“

*‘I think it incentivises you to look at things more widely. We didn’t have a huge, expensive project and yet we saw the benefits straight away. We have now decided to fully audit everything, see how our company is operating, and identify where else we could see benefits from inexpensive changes.’*

(Business beneficiaries– installed LED lighting and controls)

This positive perspective on increasing knowledge and awareness of energy efficiency alongside the wider low carbon and net zero policy agendas, has also been discussed with stakeholders who have suggested that, although driven by immediate pressures and immediate financial need, the LCW programme has illustrated the benefits of reducing carbon emissions and energy usage, while also providing the information, advice, guidance, and support to help businesses take action.

“

*‘We have shown them the benefits and have provided them with the practical help to measure their existing carbon emissions, and how they can reduce it. We have given businesses a plan to work with and to establish what their green credentials could be. They have knowledge and understanding that wasn’t there before they got involved with LCW [Berkshire]’.*

(LEP representative)

However, while stakeholders were full of praise for the programme and its financial impacts for businesses, there was also astute recognition of the scale of the remaining task. Based on stakeholder interview evidence, there are approximately 30,000 businesses that could benefit from this type of support and LCW has only engaged with a fraction of these. Stakeholders stated that for every business that has engaged, there are several others that:

“

*‘...simply don’t have the capacity to participate in the programme because they are trying to run their business. Many of them still don’t realise the significance of this agenda, not only from a cost savings perspective, but also in securing contracts. If businesses can’t demonstrate their credentials in reducing emissions, they won’t be winning contracts’.*

(Wider stakeholder)

While programme engagement may have improved awareness and understanding of environmental issues, it was also important to gauge business attitudes towards the wider net zero and low carbon agendas and what contribution they could make to any local, regional, or national targets. Encouragingly for the programme, almost two thirds of respondents (65%) believed their contribution would make a real difference to addressing climate change.

Above all, it is hoped that individuals become more conscious of their own role in changing attitudes and behaviours towards energy efficiency, reducing carbon emissions and contributing to positive change, and this can only result in good outcomes for business.

### 3.2.3 Improvements to business productivity and overall performance

When asked, almost 1 in 3 respondents (32%) stated that installing recommended measures had improved the competitiveness of their business, when pushed to elaborate how:

- 40% of these respondents highlighted an improved working environment and how this had increased staff productivity.
- 20% had used cost savings, derived from the measure, to invest in staff training and development.

Perhaps of greater importance, given the current economic, social and political climates that businesses are operating in, is business resilience and their ability to respond to, and survive, challenging conditions. Immediately following the onset of the COVID-19 pandemic, several studies were commissioned to explore the impact of government-imposed restrictions on businesses in different sectors. Throughout Europe, governments, and companies 'woke up to the fact' that they were not well prepared and lacked the resilience to deal with immediate socio-economic shocks and their long-term impacts. Businesses realised they had insufficient working capital or financial contingencies to cover any revenue losses and they lacked the business and technological infrastructures/processes to allow for remote working.

Initially, it may not be obvious how the programme has contributed to business resilience, however, rising energy prices, particularly in the leisure and hospitality and manufacturing sectors, have already led to business closures. As exemplified by the cost savings above, any intervention that is reducing energy usage and/or energy bills, is providing a lifeline for some businesses, while allowing others to remain profitable:



*'If we hadn't made savings in power usage, our costs would have been considerably more, we would have had to increase our prices to cover them, which would have lost us customers. We are more resilient because we have kept a strong customer base'.*

(Business beneficiary – installed electric heating)

46%

**MORE RESILIENT**



*Among those surveyed almost half (46%) stated that the measures had led to their business being **more resilient**, while 32% had updated their internal business practices.*

### 3.2.4 Positive financial and reputational impacts for the wider supply chain

In addition to the financial impacts of the programme on participant businesses, as was the case in interim evaluation, several stakeholders also discussed how the programme had positively impacted on the local supply chain. Businesses involved in the installation of funded measures benefited financially from the contracts (totalling £1.2m in grant and match funding) the programme generated, and reputationally via raising awareness of the type and quality of work they do.

They have also advertised the programme on their own websites and included information on grant funding, which has further increased interest in programme activities and their own products and services.



*‘Companies in the wider supply chain, that have been responsible for fulfilling contracts and installing the different measures, have also benefited. They have increased their revenues, enhanced their reputations, and have used their engagement with the programme to encourage other businesses to become involved’.*

(LCW programme team)

### 3.2.5 Wider benefits

#### Jobs created and Jobs Safeguarded

While not necessarily a ‘core’ target for the programme, any interventions that save businesses money and make them more resilient, are highly likely to result in employment benefits via safeguarding the jobs of existing staff or allowing businesses to use savings to employ additional staff. In assessing the benefits to businesses, we asked survey respondents whether the measures they had installed had enabled them to a) safeguard jobs; and b) create jobs. Based on self-reported data from survey respondents<sup>25</sup>:

- 20% of respondents had safeguarded a total of 19 full-time jobs, as a direct result the programme
- 4% stated the measures had enabled them to create a total of 1 part-time job.

#### Improved working environment

Implementation of different energy saving measures has improved the working environment, which has been identified as an important contributor to increasing staff morale and, therefore, productivity. As in the interim evaluation, installed measures have made workplaces brighter, safer, warmer, and more secure, which has resulted in an improved office atmosphere, a view shared by survey respondents:



*‘We went from old single glazed to double glazed windows and it’s much, much warmer and comfortable in the yoga studio. We have obviously noticed it more in the winter, but all the students have commented on how much better the studio feels now.’*

(Business beneficiary – installed double glazing)

<sup>25</sup> As is common practice in business support programme evaluations, required data on jobs created and jobs safeguarded has been collected directly from business beneficiaries during the survey. This evidence is not anecdotal, with respondents asked to state jobs created and safeguarded that can be directly attributed to the LCW Programme activities

“

*‘It is hard to make a direct comparison yet, but I think we are using less heating for hot water and the cost per lighting unit is less than it was. The quality of the lighting is superb – our old lighting was not very good, but this is excellent and makes the office space a lot brighter and, in my view, more welcoming.’*

(Business beneficiary – multiple measures)

“

*‘I know it is a cliché, but a happy workforce is a productive one and the staff are a lot happier since we changed the heating. The system was old and not particularly efficient, and the office was always cold. Now it's warmer, staff aren't wearing thick jumpers or keeping their jackets on. I couldn't put a figure on it, but I am sure they are more productive.’*

(Business beneficiary – installed electric heating)

### **Greater engagement with other LEP and Growth Hub Programmes**

When discussing programme impacts on the wider supply chain, advertising, and aligning with, the programme, brought with it reputational enhancement, increased trust, and increased custom, from business beneficiaries. The positive experiences that business beneficiaries have reported, have had the knock-on effect of increasing interest in, and engagement with, other LEP and Growth Hub business support initiatives. The LCW programme may be the only one that focuses entirely on carbon emissions and the net zero agenda, but it operates alongside other Growth Hub programmes supporting business start-ups and SMEs, enabling growth and expansion, and encouraging innovation and product development.

Growth Hub staff and business advisers have successfully referred the programme beneficiaries on to other initiatives, while also fielding queries from these businesses about other available support. With Ngage concerned about what happens post programme, it is encouraging to see that businesses are actively searching for other support because of the experience they had with LCW Berkshire:

“

*‘There's an export programme being run with EU funding to increase exports. If anyone's talking about sustainability and low carbon, we direct them to LCW. If they're talking about scaling up, we will direct them to Innovate UK Edge, so it's just another suite that is being delivered by an external partner, and we will signpost a director of a business to that’.*

(Growth Hub representative)





Installations funded through the LCW Berkshire programme have produced annual pollutant savings of:

**93kg**

OF NITROUS  
OXIDE (NO<sub>x</sub>)

**102kg**

CARBON  
MONOXIDE (CO)

**1.5kg**

PARTICULATE  
MATTER (PM<sub>10</sub>)

### 3.3. Environmental impacts

While programme marketing and promotional activity centred on the carbon emission reductions and cost savings achieved through installations, the programme also delivered annual pollutant savings for NO<sub>x</sub>, CO and particulate matter (PM<sub>10</sub>), for which formal targets were not set, together with carbon emissions savings (ERDF target). Based on the latest data, the programme will produce annual carbon savings of 542 tonnes of CO<sub>2</sub>e, and calculated lifetime carbon savings of 8,130 tonnes of CO<sub>2</sub>e (based on installations operating for 15 years).

Table 8 shows that installations funded through the programme have produced annual pollutant savings of 93kg of NO<sub>x</sub>, 102kg of CO and 1.5kg of particulate matter (PM<sub>10</sub>), all of which are harmful to the environment<sup>26</sup>. These savings will positively impact on the air quality in the programme area and contribute to targets set out in the UK Government's 2019 Clean Air Strategy.

**Table 8: Per annum pollutant savings for LCW Berkshire programme**

Nitrous Oxide (kg)	Carbon Monoxide (kg)	Particulate Matter (kg)
93	102	1.5 <sup>27</sup>

### 3.4. Programme attribution

In an evaluation context, attribution refers to *'the causal link between an intervention and an observed change. Attribution can be contrasted with contribution, which acknowledges that there may be other factors (in this case other business support programmes and initiatives) influencing the change'*<sup>28</sup>.

<sup>26</sup> Nitrous Oxide is a potent greenhouse gas that contributes to warming the atmosphere about 300 times more than CO<sub>2</sub> over a 100-year timescale. Carbon Monoxide's effects on the environment include acid rain, air pollution, damage to plants and decreased visibility. The presence of Particulate Matter causes decreased levels of water evaporation from the world's oceans, accumulation on the ground and in water and decreased visibility.

<sup>27</sup> The figure for particulate matter measured in kg, has not changed significantly from that recorded in the interim report (1.2kg), unlike for nitrous oxide and carbon monoxide. A factor explaining this is the starting fuel mixes for later projects looking to convert. Earlier in the programme, gas represented a higher proportion of the starting fuel for some projects. The factor for gas is 8 times larger when compared with electricity, which was the starting fuel for more projects after the interim evaluation. This meant that the increase after the interim report was calculated based on more electricity projects, thus using the lower factor.

<sup>28</sup> 'Attribution and Contribution'. M&E Training and Consultancy, INTRAC, 2020. <https://www.intrac.org/wp-content/uploads/2017/01/Attribution-and-Contribution.pdf>

In assessing programme attribution, we asked business survey respondents four questions, **exploring what would have happened in the absence of the programme and its grant funding**. Firstly, respondents were asked to state the likelihood of the business undertaking and completing the project in the absence of the LCW programme grant.



2 in 5 programme beneficiaries stated it would have been **'unlikely'**, with a similar proportion (44%) stating it would have been 'likely'.



When asked to consider the time over which their project would have been completed, more than half (55%) stated it would have **taken longer** in the absence of the LCW programme grant (compared with 36% did not think the project would have taken any longer to complete).



Survey respondents were then asked to consider the effectiveness of project delivery and the resultant outcome. Almost half (45%) stated their **project outcomes would have been 'worse'** (including 36% stating 'a lot worse'), a third (32%) stated the outcomes would have been 'similar' and only 5% felt the outcomes would have been 'a little better'.

Lastly, respondents were asked whether they would have accessed support and financial advice from elsewhere in the absence of the programme. Half of respondents stated 'No', with slightly more than a quarter (26%) stating 'Yes'.

In discussing programme attribution with stakeholders, there was consensus on two points. Firstly, availability of LCW programme grants functioned as a catalyst or driver for businesses to invest in their projects, a driver that has become more significant because of rising energy costs. Secondly, for SMEs with limited capital to invest in such projects, availability of grant funding reduced the associated financial risk of doing so, which served to further incentivise engagement and project completion.



*'We spoke about the types of businesses supported through LCW programme activities, including those businesses for whom energy prices were becoming crippling and for whom this grant acted as a lifeline. For these businesses, the grant, however small, has been important in de-risking investment in the project. I am not sure how many of these businesses would have spent the money themselves. It has also meant that they have been able to invest money in other areas'.*

(LCW programme team)

## 4.0 Value for Money (VfM)

This section of the report considers Value for Money (VfM) in terms of the cost effectiveness of programme investment. The following data is provided:

- Annual and lifetime Return on Investment (ROI), which provides a monetary value of benefit for every £1 spent.
- Cost savings that businesses, in receipt of a grant, can be expected to make over the agreed lifetime of the measures (which is 15 years).
- The lifetime uplift for Gross Value Added (GVA).
- The one-off GVA uplift in the supply chain.

Additionally, the costs and monetised benefits included in the benefit to cost ratio and financial return on investment calculations are itemised (in Tables 10 and 12).

As agreed in the research approach, programme VfM, including the above data, is calculated for 2 scenarios that reflect different assumptions for the trajectory of retail fuel prices over the next five years.

- **Scenario 1** reflects the current government scenario, where retail fuel prices fall abruptly and return to a 'normal' level by the start of 2025.
- **Scenario 2**, which we have created for comparison, assumes that retail fuel prices will remain higher for longer, and that the return to a 'normal' level will be more gradual and take until 2030. In this scenario, predicted cost savings are understandably higher.

### 4.1. VfM scenario 1: Abrupt fall in retail fuel prices and return to 'normal' by 2025



Under scenario 1, the programme has proven to be cost effective, delivering VfM and economic benefits for businesses that participated in the programme, and the wider supply chain. **For every £1 spent** (including all grants, match funding, and additional client spend), **£4.26 of benefit has been realised<sup>29</sup>**.

<sup>29</sup> The Regeneris report detailing output unit costs and definitions for English ERDF programmes, does not provide comparative data for business support programmes, however, based on similar evaluations that Winning Moves has conducted, these figures are broadly aligned and are indicative of successful delivery and impact. England ERDF Programme 2014-2020: Output Unit Costs and Definitions'. Regeneris Consulting. December 2013 <http://www.nwueu.ac.uk/NWUEU/PDFs/Regeneris%20Consulting%20-%20ERDF%20Output%20Note%20FINAL%20Version%2018%2012%2013.pdf>



In terms of GVA, businesses that received funding would enjoy **cost savings of approximately £4.7 million** over the lifetime of the measures taken, while the supply chain has seen one-off GVA uplift of £131,997<sup>30</sup>, which collectively gives the total lifetime GVA uplift of £4.9 million.

**Table 9: Lifetime GVA impact of Low Carbon Workspaces Berkshire (scenario 1)**

GVA from cost savings made by businesses lifetime	One off supply chain GVA uplift	Total lifetime GVA uplift
£4,741,437	£131,997	£4,873,434 <sup>31</sup>

**Table 10: Lifetime benefits and impacts of Low Carbon Workspaces Berkshire (Scenario 1)**

Benefits	Lifetime impact
Actual (GVA) savings	£4,741,437
Long run variable costs total	£1,786,470
Air quality total	£5,393
Monetised carbon total	£220,739
One off supply chain GVA uplift	£131,997
Total benefits	£6,886,036
Total grant funding	£398,605
Total match funding	£750,000
Additional costs to businesses	£116,716
Administration costs	£351,395
Total costs	£1,616,716
Benefit to cost ratio (societal benefits vs costs)	£4.26
Return on investment to businesses, (lifetime cost savings per pound of match funding invested)	£6.32
Societal return on investment <sup>32</sup>	£3.26

30 As with the interim report, a lifetime supply chain GVA uplift has not been calculated as benefits to suppliers can only be accurately determined for programme-related engagement. While it is true that businesses may continue to implement measures, post-programme, and that the same suppliers could benefit, we cannot apply a 15-year lifetime assumption to such a calculation.

31 In the two VfM scenarios, the calculations have considered recent energy price increases, and the different assumptions for the trajectory of retail fuel prices. When combined with increase in businesses supported since the interim report (from 47 to 111), this explains the sharp increase in the lifetime GVA uplift figure quoted in table 9.

32 According to the Better Evaluation website, Social or 'Societal Return on Investment' (SROI) is a systematic way of incorporating social, environmental, economic and other values into decision making processes. By revealing the economic/monetary value of social and environmental outcomes, it creates a holistic perspective on whether the evaluated programme is beneficial and profitable. <https://www.betterevaluation.org/methods-approaches/approaches/social-return-investment>

## 4.2. VfM scenario 2: Retail fuel prices remain higher and gradually return to 'normal' by 2030



Under scenario 2, **for every £1 spent** (including all grants, match funding, and additional client spend), **£4.59 of benefit has been realised**.



In terms of GVA, businesses that received funding would enjoy **cost savings of approximately £5.3 million** over the lifetime of the measures taken, while the supply chain has seen one-off GVA uplift of £131,997, which collectively gives the total lifetime GVA uplift of £5.4 million.

**Table 11: Lifetime GVA impact of Low Carbon Workspaces Berkshire (Scenario 2)**

GVA from cost savings made by businesses lifetime	One off supply chain GVA uplift	Total lifetime GVA uplift
£5,270,466	£131,997	£5,402,463

**Table 12: Benefits and lifetime impact of Low Carbon Workspaces Berkshire (scenario 2)**

Benefits	Lifetime impact
Actual (GVA) savings	£5,270,466
Long-Run Variable Costs total	£1,786,470
Air quality total	£5,393
Monetised carbon total	£220,739
One off supply chain GVA uplift	£131,997
Total benefits	£7,415,065
Total Grant Funding	£398,605
Total Match Funding	£750,000
Additional costs to businesses	£116,716
Administration costs	£351,395
Total costs	£1,616,716
Benefit to cost ratio (societal benefits vs costs)	£4.59
Return on investment to businesses, (lifetime cost savings per pound of match funding invested)	£7.03
Societal return on investment	£3.59





## 5.0 Programme delivery and management

This section summarises the delivery strengths of the programme that have contributed towards the achievement of the outputs, outcomes and impacts discussed in the previous section. It also summarises any opportunities for improvements to delivery of other business support programmes. The issues discussed have been ordered to reflect the 'customer journey' and the key activities involved in programme delivery, and primarily explore findings from the stakeholder interviews, with additional perspectives from survey respondents, where relevant.

### 5.1. Programme strengths

In reflecting on viewpoints of businesses and stakeholders involved with the programme, six key strengths of delivery and management were identified.

#### 5.1.1 Effective, relevant and responsive marketing and promotional activities

##### Identifying the right messages to 'play' to businesses at the right times

Marketing and promotional activity is critical for raising awareness of any programme and its activities, and to securing engagement from target businesses or beneficiaries. The real key to the success of the LCW programme's marketing strategy was settling on the most relevant and 'thought provoking' messages for businesses. While there was recognition of the environmental benefits of the programme, what 'struck a chord' with businesses was the financial benefits of becoming involved.



*'The timing of early programme delivery, during the COVID-19 pandemic, was far from ideal, with the financial implications of government-imposed restrictions making it difficult to encourage business involvement. However, our messaging not only focused on the positive environmental impacts, such as the amount of carbon that could be saved, but also on the financial savings that a particular installation could provide businesses'.*

(LCW programme team)



*'They had to focus on the right messages at the right times. Their marketing really needed to 'tap into' the important issues and concerns of businesses, and we think that the programme did that very successfully'. For example, recent messaging has really majored on the energy crisis and how the programme could lower energy bills. Playing back the issues that are important to businesses, which is what they have done really well'.*

(Growth Hub representative)

### **Using a multi-media approach to reach as many businesses as possible**

As with most programmes, the programme used a variety of different media and promotional content to raise awareness of the grant and detail how businesses could get involved. The most used and most effective were direct marketing techniques, engaging local businesses over the phone, and via email, using existing networks, built up through other business support programmes. Provided businesses were already searching for the type of interventions that the

LCW programme championed, the expression of interest form on the website also proved to be effective.

The marketing and advertising budget was also spent on various social media campaigns and uploading adverts on different platforms. Less effective were attempts to garner interest via trade publications, although these adverts did help in the development of some supplier relationships:



*'In the past, we have paid for advertisements to be included in prominent trade magazines. However, this approach has not proven to be as successful as we had hoped. That said, some advertisements, like those posted in the electrical trade magazine, did support the development of links with new suppliers. The purpose of this advertising was to make businesses aware of the programme and let them know we were there to help if they needed us'.*

(LCW programme team)

### **Berkshire used expos and other events to raise awareness amongst the business community.**

The Thames Valley Berkshire Growth Hub and LEP, organised a programme of events covering a range of issues, including climate change and net zero. These events were not only attended by prospective business beneficiaries, but also by business advisers from other programmes who were able to increase their knowledge of the agenda, understand the programme offer to businesses and more effectively broker interested and eligible SMEs to LCW.



*'The LEP and Growth Hub organised a programme of events that covered issues relating to climate change and net zero. Members of the LCW programme team have attended these events, together with our growth hub advisers and delivery partners. They used these events to promote the grant, outline the application process and discuss the types of installations or interventions that could be funded'.*

(LEP representative)

As the quote above states, Ngage attended these events to increase visibility and awareness of their offer and LEP staff viewed their attendance as useful and worthwhile.

### Case studies provide concise and real-life examples of business impacts

Based on feedback from stakeholders and beneficiary businesses, by far the most effective mechanism for marketing and promoting the programme and its impacts, have been the publication and uploading of beneficiary case study write-ups and videos. These short, clear, and concise communications, summarise the business, their engagement with the programme and, most importantly show the impacts of the support they have received. The content of the message contained in the case studies aligns with the wider focus on cost savings and other financial and/or infrastructural benefits. Some businesses have taken it upon themselves to publish articles about their programme involvement. Some 'programme alumni' also post follow up articles and updates, illustrating what other actions they have taken since their involvement, which has, in turn highlighted some of the benefits of the revised Green Diagnostic Tool (GDT) discussed below.



*'We are fortunate that our partners and 'low carbon alumni' [business beneficiaries] continue with their low carbon 'journeys' and are happy to share their experiences via our website and through social media. This has represented great marketing and PR for the programme since businesses themselves are publicising the benefits of their engagement'.*

(LCW programme team)

### 5.1.2 An efficient, simple and easy to understand application process

Section 1.3.1 bulleted the main elements of the application process that prospective business beneficiaries were expected to follow. According to Ngage staff, this process can be further simplified into 4 main elements. Firstly, businesses need to submit an application form, which provides details about the business, along with; information on the installation they are requesting grant funding for, quotes for completing the work, and photos evidencing what they currently have installed (pre- installation). Once the application is received, a quick eligibility check, using the company name and the Companies House number, is conducted, before the application progresses to the third stage, where a project officer will process the application and calculate how much energy and/or carbon emissions may be saved. The final stage of the application process is the panel review upon which, if successful, the grant letter is sent out and the installation work can commence.

An important objective of the survey was to explore business perceptions of different processes. With respect to applications, respondents were asked the extent to which they agreed with several statements about each of the above elements. Levels of agreement were remarkably high across all statements with:

- 88% stating they could easily find the information needed to complete the application.
- 92% agreeing that both the guidelines on what measures the funding could be used for were clear, and the application form itself were easy to understand.
- 94% agreeing that the process used for eligibility checks were straightforward.
- 98% felt that the time between submitting their application and hearing back from Ngage was reasonable.

Reflecting the last of the above bullet points, several members of the programme team, confirmed that the entire process can be completed within a matter of a three to ten days, businesses can then finalise the installation and simply submit evidence of completion and an invoice to conclude their project.

### **Application process identifies motivated businesses committed to completing the project**

One advantage of the application and the speed with which it is processed, is that businesses that are not fully committed to their project and seeing it through to completion, are effectively identified and removed earlier. As stakeholders argue, the process simply does not allow businesses to ‘*procrastinate, delay or stall*’ progress. Businesses must be fully committed, well organised and have their project ‘*oven ready*’ to facilitate quick completion. This motivation and commitment have become even more

important in the final months of the programme, where time is even more constrained.

The team have repeated their focus on making the application process, and the wider project experience, as painless and non-disruptive as possible. The businesses are at the centre of the programme and the approach recognises this, ensuring that projects get moving and are not held up by overly engineered and bureaucratic decision-making processes.

### **Recognition of recent delays to processing applications and allocating funding**

As is common across all grant funding programmes, the final months of delivery can be incredibly busy. Upon realising they may miss available funding, a greater volume of businesses will apply, which increases the resource demands on programme teams that are also dealing with requirements for project closure. Discussions with programme staff identified recent delays to processing applications and recognised the knock-on effects these delays had on beneficiary satisfaction.



*‘The only problem we’ve been seeing is that in these final months of delivery more and more people are requesting help; we’re seeing more and more programmes around the country close as the year goes on and, in turn, that is only compounding the sense of urgency.’*

(LCW programme team)

### **A proportionate and efficient process, facilitated by experienced staff**

Wider stakeholders, namely the Berkshire Thames Valley Growth Hub and LEP, praised Ngage for their ability to process applications so quickly. Business advisers regularly received positive feedback from businesses about the application process and how favourably it compares with those administered in other programmes. Evidence from the business survey confirmed the view of participants, that the application process, monitoring requirements and overall programme management and administration, were proportionate to, and reflective of, the scale of funding and activity, and that programme staff had a detailed understanding of the processes and could rapidly implement them.



*'We found the process very straightforward. The form was quick and easy to complete, only asked for relevant information and was not overly onerous. You get applications that ask for your whole company history to secure relatively small grants. This was not one of those.'*

(Business beneficiary – installed LED lighting and controls)



*'Our experience of the programme has been really positive, and the expectations from us as a business, have been reasonable and proportionate to the funding on offer'.*

(Business beneficiary – installed solar PV)

The staff's intimate knowledge of internal management and delivery processes also allow them to identify efficiencies that can be made and to make suggestions to streamline and improve certain activities, further enhancing beneficiary satisfaction.

### **Perspectives on retrospective funding payment**

Businesses that successfully applied for grant funding receive payment following completion of the installation and confirmation via invoices and photographic evidence. Some argued that it would be better if the funding could be provided in advance and used to pay for the installation, rather than being paid retrospectively and some weeks after completion:



*'The only issue was that you had to pay for goods up front and they reimburse you which could be a cash flow issue for some businesses, although it wasn't in our case'.*

(Business beneficiary – installed electric heating).



*'I completely understand the rationale for confirming the work has been completed and paid for before issuing the grant. However, our grant was comparatively significant, and we obviously had to provide more from our own finances. It would have been easier for us, and committed less of our own money, if we could have received the support, once the work had been booked in. We could evidence the installation date to satisfy any processes and/or concerns they might have'.*

(Business beneficiary – installed double glazing)



### 5.1.3 A knowledgeable, enthusiastic and 'well-liked' Programme team



*'For us, it is the programme team that makes Low Carbon Workspaces so successful and the experience so positive for businesses. They are the biggest asset; their enthusiasm, their knowledge and expertise, their understanding of how businesses think and operate. They are approachable, responsive, and well organised. I am not sure there is much else to say'.*

(LEP representative)

The above quote aptly reflects the overarching view, of stakeholders, about the LCW programme team. All the people interviewed, together with many businesses surveyed, were highly complementary of the team, and how their management of LCW had ensured positive outcomes for businesses and the seamless running of the programme, amidst challenging political, social, and economic conditions. As several stakeholders argued, the programme had *'admirably navigated not one, not two, but three once in a lifetime events, in Brexit, COVID-19 and the cost of living crisis'*. They have been flexible and responsive to rapidly changing circumstances and have still enabled the programme to meet and surpass its main performance targets.

Stakeholders also praised Ngage for reflecting the mood of businesses and for identifying and clearly articulating what was important to them, and how the programme could support them.



*'They have taken a no-nonsense approach to what they do. They haven't tried to blind businesses with the science of climate change, mainly because it isn't as relevant to them. They demonstrate the carbon savings and what this represents but they have remained focused on what businesses want.'*

(Business beneficiary – installed LED lighting and controls)

#### Getting people with the requisite skills

Despite the inherent strengths of the programme team, it has been proven challenging to expand the team or to recruit staff with the same level of knowledge and expertise. This has placed a lot of the responsibility and the burden on a handful of individuals to manage and deliver LCW. Recruitment of environmental experts and advisers has proven difficult, and this issue is not restricted to the LCW programme but is reflective across all new zero advice. Stakeholders felt that their *'hands were tied to a certain extent'*, by the salary competition and the programme's inability to match salaries commanded for similar roles and levels of expertise in other industries.



*'Staff with environmental expertise is so lacking. I know there's an issue at the macro level, but the issues we face in hiring environmental experts or advisors is very difficult.'*

(LCW programme team)

Concerns over retaining skills, knowledge and experience extends beyond the lifetime of the LCW programme, with stakeholders wondering where individuals with specialist environmental knowledge can be found to support businesses as they continue their journey towards net zero.



*‘We are worried that the knowledge and skills that the programme has developed will simply disappear when it finishes in a few months’ time. There are thousands more businesses out there that would benefit from this type of support, businesses that haven’t even started their journey to net zero, but what position will the Growth Hubs and LEPs be in to provide that support. We can’t expect people working in business support to stay in the sector forever, we need to be identifying and sourcing people with these skills, but also making the roles more appealing and enticing for them’.*

(LEP representative)

#### **5.1.4 Looking to the future – Positive changes to the Green Diagnostic Tool (GDT)**

Stakeholders consistently spoke of ‘programme legacy’ and what such a legacy would look like for LCW. There was widespread agreement that both LCW programmes had provided an initial ‘nudge’ to SMEs and had encouraged them to consider the benefits of low carbon technologies and interventions to their business. Their engagement with the programme was never meant to be standalone and had, instead, been viewed as starting their journey towards a more environmentally conscious and sustainable business model. The available funding and resultant installations, would show businesses what could be achieved at smaller-scale and encourage them to invest their own money, take further action and reap greater benefits.

A critical component of this was the change made to the Green Diagnostic Tool (GDT), which had previously entailed a short email *‘that recommended little interventions they could make and behavioural changes they could foster among staff’*. More recently a second element had been added, which looked to future and posed the question of what might be next for businesses embarking on their journey to net zero. What other projects could businesses invest in that could build on the work of the LCW programme, and how might they go about implementing them?

For programme staff, this addition to the GDT was viewed as a positive development, one that would help shape and support future changes for businesses. Wider stakeholders, too, had received positive feedback from businesses about the recommendations and suggested actions put forward. However, while the content of the GDT does indeed, provide useful information and recommendations for businesses, awareness and usage of the tool still appears to be low, with only 10% of LCW Berkshire business respondents having used it.

### 5.1.5 Adjustment to intervention rate increases programme engagement

Midway through delivery, Ngage decided to adjust the intervention rate, increasing the grant allocation from 33% to 40% of the total cost for the programme. This change would allow the programme to allocate larger grants and, it was hoped, increase engagement from local businesses.



*'The original intervention rate for the LCW Berkshire Programme was 33%. This meant that for every £1,000 of grant funding awarded, a business would need to invest £2,000 of their own capital. For businesses of 1 or 2 employees, or those with ideas for smaller projects, a requirement to invest a minimum of £2,000 could either be off putting, or lead them to consider interventions, or extensions to interventions, that they may not need or want in order to meet the minimum grant value of £1,000'.*

(LCW programme team)

In changing the intervention rate to 40%, the programme could give out larger grants and could re-allocate any projected underspend to go back into the grants.



*'We saw a significant uplift in grant applications when the intervention rate changed. I think, with all the economic upheaval, businesses needed that bit of extra money to incentivise their participation and support the completion of their project'.*

(LCW programme team)





## 6.0 Future support

Ngage, and wider stakeholders, have viewed the LCW Berkshire programme as a catalyst for encouraging local businesses to invest in installations and other interventions that could reduce greenhouse gas (GHG) emissions, improve energy efficiency, and make significant cost savings, and to start improving their awareness and understanding of climate change and the low carbon/net zero agendas. The size of grant available to businesses could not address all the possible cost saving interventions but has served to illustrate the types and level of savings that can be made, alongside other benefits that can be garnered from diverse types of action.



*'We really hope that the projects funded, and the cases studies we have published, have wetted the appetite of local businesses and shown them what financial, environmental, reputational and wider societal benefits, can be achieved if they start to invest in similar interventions'.*

(LCW programme team)

The programme has effectively piloted different technologies, installations, and interventions, and has shown businesses what is possible, what works most effectively, and what contributes the most towards bottom line cost savings. Stakeholders are hoping that engagement with the programme represents the starting point on a journey to net zero for participant businesses and that advice, guidance and recommendations for future projects are taken forward, following conclusion of the programme.

“

*‘Grant funding, like that provided through the LCW Berkshire programme, cannot be available indefinitely. At some point, we have to take responsibility and invest our own money if we ever want to progress towards net zero.*

(Business respondent – Solar PV installed)

“

*‘The Green Diagnostic Tool has provided additional actions and recommendations that build on our project and has also offered advice and guidance to support implementation’.*

(Business respondent – LED lighting and controls installed)

Evidence from business survey respondents suggests that this will be the case, with 56% of businesses that received a grant, planning to make further changes to reduce their energy usage and carbon emissions. More specifically, respondents were asked to state what types of support businesses would benefit most from in the future. The most common responses were:

- Access to more funding opportunities, specifically grant funding, including funding for smaller interventions:

“

*‘We used the available funding to install LED lighting, a relatively quick and low risk intervention for us. As a business, we have only just ‘dipped our toe in the water’ in relation to sustainability and there are numerous other changes that we could make to processes or infrastructure. However, for a business of our size, grant funding, together with access to technical advice and guidance, is really useful if we want to do more’.*

(Business beneficiary – installed LED lighting and controls)





“

*‘We recently had to replace our meat freezer. the value was too low to get an LCW grant so we had to raise it ourselves. These costs are still significant for small companies, but they don’t meet the eligibility requirements’.*

(Business beneficiary – Replaced refrigeration equipment)

- Funding to install renewable energy technologies, including ground/ or air source heat pumps, solar PV and insulation:

“

*‘I would like to explore air source heat pumps. We have heard a lot about them and the savings we could make, over the medium to long-term, if we installed them. But, like many businesses, we need some advice about how to go about it’.*

(Business beneficiary – installed LED lighting and controls)

- Access to additional advice and support from renewable energy experts and individuals with knowledge of different technologies:

“

*‘I would say a visit by an energy expert to get onsite observations would be extremely useful’.*

(Business beneficiary – installed LED lighting and controls)

“

*‘Access to more advice in different forms: e.g. financial guidance, how to guides, framework of benchmarked criteria/ recognition of product sustainability standard - i.e. a kitemark’.*

(Business beneficiary – installed LED lighting and controls)



However, if businesses are to continue investing in further changes, like those identified above, there needs to be a continuation of the support that has been offered through the LCW programme, with other Growth Hub and LEP business support initiatives effectively 'taking up the slack'.



*'Most local businesses haven't engaged with the LCW Berkshire programme. They remain unaware of the benefits that can be gleaned from these types of intervention. Further engagement from technical and environmental experts, like those in the LCW programme team, will be needed to help as many businesses as possible respond to the climate crisis and contribute to GHG emissions reductions'.*

(Growth Hub representative)

## 6.1. Grant funding important in supporting progress to net zero

In assessing attribution and what would have happened in the absence of LCW Berkshire programme grants, 40% of survey respondents stated they would have been unlikely to progress with their project without the financial support provided. However, as the quotes below illustrate, the importance of the programme extends beyond the de-risking of investment and provision of financial support. Businesses have benefited from the experience, skills and technical knowledge of advisers and the programme team, throughout the process, with many doubting their capacity to implement such projects on their own.



*'It was undoubtedly a great help for us to receive the funding. Whilst it may not be a significant investment for larger businesses, I am not convinced we could have afforded to do it otherwise'.*

(Business beneficiary – installed solar PV)



“

*‘Like many other businesses, we understand the importance of environmental sustainability and that the business community, across all sectors and industries, have a role to play in making a behavioural and practical step change if we are to address climate change. However, beyond some obvious changes, like switching lights off and reducing paper usage, we need advice and support to identify other changes we can make’.*

(Business beneficiary – installed LED lighting and controls)

“

*‘We are not the experts in this. Without the LCW Berkshire programme, we would be unsure where to start. What are the most cost-effective measures for a business in our position? Who would we contact to broach a conversation about this? Where would we go to identify installers and technical experts? These are all questions that the programme helped us with and that would serve as significant barriers without their engagement’.*

(Business beneficiary – installed heating)

As the last of the above quotes discusses, the presence of the programme has provided businesses with access to support and advice at different stages of their project development. The delivery approach followed has taken participant businesses on a clear and well structured ‘journey’ from identification of opportunities and exploration of likely impacts, through to installation of technologies and monitoring of actual financial and environmental impacts. This is a journey that many businesses would struggle to start on and effectively navigate without the support available via LCW.

With the survey giving a clear indication of the continued demand for this type of business support, and respondents detailing the strengths of delivery, together with examples of future support needs, Ngage Solutions have all the data and evidence needed to make a strong case for a continuation of this activity, either through the upcoming Shared Prosperity Fund or through extending the scope of existing business support programmes. Without access to this programme, businesses will struggle to justify continued investment or identify where any investment might have the greatest proportionate impact.





## 7.0 Conclusions and lessons learned

This section summarises the conclusions that can be drawn from the evaluation in terms of the strengths and challenges of the programme. It also outlines lessons learnt from the programme that can be considered in the design and implementation of any future support.

### 7.1. Programme strengths

The strengths of the programme can be summarised under four main categorisations or classifications:

1. Benefits for businesses, the supply chain, and wider stakeholders.
2. Economic and environmental impacts, including projected lifetime cost savings.
3. Programme performance against contract targets and wider outcomes.
4. Programme delivery and management.

#### 7.1.1 Programme performance against contract targets

The programme performed well against all its agreed ERDF targets:

- £398,605 of grant funding was awarded, achieving the agreed target (100%)
- 113 SMEs were supported against a revised target of 111 (102%)
- 542 tonnes of CO<sub>2</sub>e will be saved each year compared with a target of 500 tonnes of CO<sub>2</sub>e (116%)



**100%**  
GRANT FUNDING (£)  
AWARDED



**102%**  
UNIQUE SMES  
SUPPORTED



**116%**  
TARGET CO<sub>2</sub>e  
REDUCED ANNUALLY

### 7.1.2 Satisfaction with the programme and the associated measure(s)

The programme has achieved very high satisfaction scores from SMEs across several areas:

- Almost all businesses (94%) were satisfied with the overall grant received, with 82% stating they were 'very satisfied'.
- 93% were satisfied with the energy efficiency measure and the impact the measure had in reducing energy costs.
- 50% of respondents had already recommended the programme to others (up from 40% at the time of the interim evaluation), while 82% would be 'extremely likely' to recommend the programme to other businesses in the future.
- LCW Berkshire achieved a net promoter score of 76%, a score that was almost identical at the interim stage (75%) and that captures loyalty and general satisfaction.

### 7.1.3 Business impacts

#### Value for money (VfM)

Programme VfM was calculated using two different medium to long-term scenarios based on the possible trajectories of fuel prices. Scenario 1 mirrored government predictions of an abrupt reduction in fuel prices by 2025, while scenario 2 assumed a more gradual lowering of prices by 2030. Based on these scenarios, the programme has achieved/will achieve the following:

- For every £1 spent (including all grants, match funding, and additional client spend), £4.26 of benefit would be realised, under scenario 1, and £4.59 under scenario 2.

- In terms of GVA, under scenario 1, businesses would enjoy cost savings of approximately £4.7 million over the lifetime of the measures taken (15 years), while the supply chain has seen one-off GVA uplift of £131,997<sup>33</sup>, which collectively gives the total lifetime GVA uplift of £4.9 million. Under scenario 2, these figures are £5.3 million, £131,997 and total lifetime GVA uplift of £5.4m.

#### Jobs created and jobs safeguarded

We asked survey respondents whether the measures they had installed had enabled them to a) safeguard jobs; and b) create jobs. Based on the data:

- 20% of respondents had safeguarded a total of 19 full-time jobs, as a direct result the programme
- 4% stated the measures had enabled them to create a total of 1 part-time job.
- Reflecting on these figures, two key factors behind them are likely to be the financial position of these businesses and their focus on survival and recovery, following COVID-19, our exit from the EU and increasing energy costs, combined with the size profile of respondent businesses, with almost 1 in 3 (31%) only employing between 1 and 5 staff in the first place (64% employed between 5 and 50 staff).

<sup>33</sup> As with the interim report, we have not calculated a lifetime supply chain GVA uplift as benefits to suppliers can only be accurately determined for programme-related engagement. While it is true that businesses may continue to implement measures, post-programme, and that the same suppliers could benefit, we cannot apply a 15-year lifetime assumption to such a calculation.



## Wider benefits

- 1 in 3 respondents stated that installing recommended measures had improved the competitiveness of their business, with 40% of these respondents highlighting an improved working environment, leading to increased staff productivity.
- 46% of respondents stated that the installed measures had made their business more resilient and 32% had implemented changes to their internal business practices.
- Stakeholders discussed how the programme had positively impacted on the local supply chain. Businesses became recognised through their involvement with the programme and saw their reputations enhanced.

### 7.1.4 Environmental impacts

- Installations funded have produced annual pollutant savings of 93kg of NO<sub>x</sub>, 102kg of CO and 1.5kg of particulate matter, all of which positively impact on the air quality in the programme area.
- The programme also had a target of 468 tonnes of CO<sub>2</sub>e saved and exceeded this, achieving 500 tonnes of CO<sub>2</sub>e.

### 7.1.5 Programme delivery and management

- Businesses and wider stakeholders praised Ngage specifically for their overall management and delivery of activities in the face of difficult socio-economic and political conditions. Some of the words used to describe the programme team included enthusiastic, approachable, knowledgeable, responsive, and professional.
- The team continually reviewed and adapted the focus and tone of key messages in marketing and promotional materials to ensure they remained relevant to prospective beneficiary businesses.

- Direct marketing techniques were highly effective in raising awareness of the programme and in securing engagement from businesses. Use of social media platforms were also a cost effective and efficient mechanism to reach large numbers of businesses, although advertisements in trade publications did little to garner additional interest.
- Case studies were widely praised for their ability to show businesses the financial and/or infrastructural benefits of engaging with the programme.
- The team developed and refined an efficient, simple and straightforward application process for businesses to follow. The entire process, from receipt of application to award of funding, could be completed within a week, allowing businesses to rapidly progress their projects.
- Changes to the Green Diagnostic Tool were viewed as positive, however, more could have been done to raise awareness of it among businesses, with only 7% of survey respondents stating they had used it.
- The decision to increase the intervention rate to 40% allowed the programme to allocate larger grants and increase engagement from local businesses.

## 7.2. Lessons learned

While the programme has undoubtedly been a success, both in terms of the outcomes and impacts delivered, and its overall governance and management, our engagement with Ngage, including LCW programme staff, beneficiary businesses and wider stakeholders did identify the following lessons that could be applied to existing and future Growth Hub and LEP business support initiatives:

- The final 3 to 6 months of delivery saw an influx of applications that placed additional resource pressure on LCW programme staff, including business advisers. We would recommend introducing a review of workload during this period and increasing the number of staff, if needed, to ensure that all applications and funding allocations can be processed within an acceptable timeframe.
- Salaries for particular roles could be reviewed to ensure competitiveness and alignment with similar roles in other sectors, and to successfully attract and retain staff with the necessary technical knowledge and programme management skills.
- With survey evidence showing that only 7% of respondents had actively used the Green Diagnostic Tool, it is clear that Ngage could do more to raise awareness of the tool and the benefits its use can have for businesses.

## 7.3. Concluding remark

The increased demand for, and engagement with, LCW programme support in the final months of delivery, illustrates the continued need for support of this type, and highlights the gap in provision that would be left, with no replacement initiative currently proposed. Businesses have benefited, not only from the provision of financial support, but also from access to knowledgeable and experienced programme delivery staff and business advisers. With many stating the difficulties associated with identifying possible projects and who to approach to design and install them, an alternative to LCW should be considered.



# Annex 1: Evaluation objectives and research approach

## Evaluation objectives

Ngage appointed Winning Moves to conduct an independent evaluation of the LCW Berkshire programme, with the outcomes and deliverables satisfying ERDF requirements for a Summative Assessment of funded activities and demonstrating the performance and impact of activities to wider stakeholders.

Any ERDF grant funding agreement places a requirement on the lead applicant and accountable body (Ngage in this instance) to undertake a summative, or post project, assessment. Whilst there are aspects of such an assessment that must be implemented in accordance with the guidance, every ERDF project is different and the evaluation methods and key tasks will vary and be tailored to programme activity, along with the outcomes and impacts it is expected to achieve.

According to the Summative Assessment Guidance<sup>34</sup> produced by the European Union:



*'Summative assessments are intended to provide insights into project performance to enhance project implementation, provide reliable evidence of their efficiency, effectiveness and value for money, as well as insights into what and why interventions work (or not), and lessons for the future'.*

This reporting output is structured according to the core objectives and key activities of this Summative Assessment, which were to:

- Assess programme progress (Section 3)
- Review the design, relevance, and consistency of the LCW programme (Section 4).
- Identify and discuss programme outcomes and impacts (Section 4).
- Assess the LCW programme's value for money (VfM) (Section 5).
- Review project delivery and management (Section 6).
- Understand lessons learned and propose recommendations for future delivery (Section 7 and 8).

<sup>34</sup> Summative Assessment Guidance ESIF-GN-1-033, European Union (ERDF), July 2020. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/896857/ESIF-GN-1-033\\_ERDF\\_Summative\\_Assessment\\_Guidance\\_v4.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/896857/ESIF-GN-1-033_ERDF_Summative_Assessment_Guidance_v4.pdf)

In addition to assessing the outcomes of the programme against ERDF targets, this evaluation has:

- Determined the wider sustainability benefits of the programme.
- Determined the wider economic benefits arising from the programme, and Gross Value Added (GVA) created through grant dissemination.
- Evaluated the strength of guidance provided by the steering groups and how effectively this has translated into action by the team.
- Identified the effectiveness and impact of marketing activities.

## Summary research approach

An interim evaluation conducted in 2021, provided insights into programme performance, which included an assessment of progress towards key outputs, outcomes, ERDF targets, and undertook a detailed assessment of key delivery, management, and monitoring processes. Ngage could then use the research findings to review LCW's 'direction of travel', and to implement any suggestions or recommendations that would improve aspects of programme delivery and management in the remaining 18 months before programme closure.

This report presents findings for the final Summative Assessment, which includes a greater focus on programme performance and achievement, and a more detailed analysis of programme impacts on business beneficiaries, businesses in the wider supply chain, and wider impacts on competitiveness, economic performance and environmental benefits, including, programme and lifetime carbon savings and annual pollutant savings.

To collate the necessary data, our research approach was structured into the following five tasks:

- **Review of programme monitoring data** to determine performance against key metrics, including number of grants awarded, match funding secured, number of unique businesses supported, carbon emissions savings (CO<sub>2</sub>e), reduction in energy use/energy generation (kWh) and monetary savings (£)
- **Review of additional documentation**, including marketing materials used to promote the programme, the interim evaluation report and key findings, LCW application forms and terms and conditions, and example energy trackers and Green Diagnostic reports.
- **Qualitative interviews (x8) with programme stakeholders**, which were used to discuss their overall perspective on the delivery and management of LCW, views on aspects of the programme that went well, as well as a focused discussion on programme impacts on businesses, the supply chain, and wider stakeholders.
- **Telephone interviews and online questionnaire completions with 140 businesses** that have received a grant from either the LCW Berkshire or SMILE programmes and have successfully implemented their project. The sample of businesses includes a cohort that engaged during the mid-term evaluation but had not yet installed their technology. These businesses were sent a link to complete an online survey at various points throughout 2022, based on when their project had been concluded. The purpose of the survey was to collate beneficiary experiences of engaging with LCW and information on the impacts their project has had for their business.

- **Quantitative analysis**, which has:
  - Drawn together monitoring data and projected energy savings collated by the LCW programme for the population of businesses accessing a grant. This data then informed financial analysis of savings through the Green Book Supplementary Appraisal Guidance for Valuing Greenhouse Gas Emissions and Energy Use.
  - Analysed interviews and survey data covering:
    - The effectiveness and impact of marketing activities by different delivery parameters (e.g., type of marketing activity employed).
    - Satisfaction with the programme.
    - Wider benefits enjoyed by businesses (including supply chain businesses).
    - Referrals to other funding/support mechanisms.
    - The appetite for reducing carbon emissions among businesses.

## Annex 2: Detailed method statement

### Air pollutant analysis

Analysis of air pollutants was based on achieved (actual) kWh savings associated with implemented actions, as those were provided to Winning Moves by Ngage. Data from the National Atmospheric Emissions Inventory<sup>35</sup> was used to estimate the amount of emissions of air pollutants that was avoided thanks to the actions implemented by beneficiaries. All actions were assumed to displace one-off the following polluting activities:

- Electricity generation in power stations from natural gas and coal where the action was assumed to displace electricity use
- Gas stationary combustion in residential settings where the operation of a gas boiler was assumed to be displaced by the action – these factors were used conservatively instead of much higher ones for commercial settings, as energy consumption by SMEs participating in the programme was probably closer to a household's.
- Driving of cars in urban settings where an electric vehicle was purchased.

Data on which type of fuel was displaced by each action was provided by Ngage and used in the analysis. Please note that these factors were not updated prior to the final analysis to ensure findings were comparable across the two stages of the evaluation.

The following table shows the emission factors for actions where electricity use was displaced. The latest data on the UK electricity fuel mix was used to estimate the proportion of electricity generation in the country accounted for by natural gas and coal.

<sup>35</sup> <https://naei.beis.gov.uk/data/ef-all>



**Table 1 Air pollutant emission factors associated with displacement of electricity consumption**

Fuel type	% UK electricity fuel mix (2020) <sup>36</sup>	NO <sub>x</sub> emissions (kg/terajoule) (2019)	Carbon monoxide emissions (kg/terajoule) (2019)	PM10 emissions (kg/terajoule) (2019)
Natural gas	40%	24.997	13.5	0.092
Coal	3%	156.447	109.894	3.454
Clean energy incl. nuclear/renewables	51%	N/A	N/A	N/A
Fuels for which data is not available incl. imports	6%	N/A	N/A	N/A

The following table shows the emission factors for actions where gas combustion was assumed to be displaced.

Fuel type	NO <sub>x</sub> emissions (kg/terajoule) (2019)	Carbon monoxide emissions (kg/terajoule) (2019)	PM10 emissions (kg/terajoule) (2019)
Natural gas	19.3	29	1.2

The following table shows the emission factors for the purchase of electric vehicles.

Fuel type	NO <sub>x</sub> emissions (kg/terajoule) (2019)	Carbon monoxide emissions (kg/terajoule) (2019)	PM10 emissions (kg/terajoule) (2019)
Petrol	33.1	175.359	0.653

To estimate total avoided emissions, emission factors were converted into kg per kWh (1 Terajoule=277,778 kWh) and were subsequently applied on achieved energy savings, expressed in kWh.

## Value for Money

The Value for Money methodology was based on the Treasury's Green Book supplementary guidance on valuation of energy use and greenhouse gas emissions for appraisal<sup>37</sup>. According to this guidance, the following should be considered when assessing the value of money of a policy programme leading to a reduction of energy use:

## Long-Run Variable Costs of Energy (LRVC)

Changes in energy consumption impact the use of resources in the production, transportation, and final supply and use of energy. In order to value these impacts, we used data from the data tables 1-19<sup>38</sup> supporting the Treasury's Green Book guidance:

**Table 2 LRVC assumptions**

Fuel	2020-2024 (5 years) (2020 £/kWh)	2020- 2034 (15 years) (2020 £/kWh)
Electricity	0.43	1.33
Gas	0.09	0.31
Petrol	2.00	6.59

## Monetised carbon emissions

Carbon savings in tCO<sub>2</sub>, as provided by Ngage, were monetised in line with data available in the data tables 1-19 supporting the Treasury's Green Book guidance:

**Table 3 Carbon monetisation assumptions**

Emission classification	2020-2024 (5 years) (2020 £/kWh)	2020- 2034 (15 years) (2020 £/kWh)
Traded	154.33	1,006.66
Non-traded	392.23	1,341.18

All avoided emissions associated with displacement of electricity use were considered traded, whereas all other emissions were considered non-traded.

<sup>37</sup> <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

<sup>38</sup> Latest release: July 2021

## Air quality

Air quality impacts were monetised in line with data from the data tables 1-19 supporting the Treasury's Green Book guidance:

**Table 4 Air quality assumptions**

Fuel	2020-2024 (5 years) (2020 £/kWh)	2020- 2034 (15 years) (2020 £/kWh)
Electricity	0.01	0.03
Gas	0.01	0.03
Petrol	0.07	0.24

## Cost savings

These were provided by Ngage.

## Lifetime savings

Impacts of actions were assumed to persist into the future in line with the following assumptions that were suggested by Ngage:

**Table 5 Assumed impact lifetime per type of action**

Type of action	Assumed persistence of impact into the future (years)
LED lighting & controls	15
Solar PV	15
Glazing	15
Insulation	15
Other	15 (5 for solar blinds)
Boiler & controls	15
Air-source heat/cooling	15
Equipment upgrade	15
Electric heating	15
Compressor	15
Electric vehicle	5
Water reduction	15
Refrigeration equipment	15

Waste recycling technology	15
Biomass boiler	15
Servers & IT	5

A Net Present Value discounting factor of 3.5% per year was applied to all lifetime savings. Specifically for savings from actions in which electricity use was displaced, the following adjustments were made:

- A degradation factor of 10% per annum was also applied on carbon savings to account for the expected decarbonization of the UK grid.
- Future cost savings were adjusted to reflect electricity retail price forecasts<sup>39</sup>. Lifetime cost savings are the only aspect of the methodology that was amended prior to the final analysis. The amendment was driven by the significant increase in energy prices seen between the interim and the final stage of the evaluation, which has led the government to revise its projections for fuel prices in the next few years. Due to the uncertainty around these projections, two scenarios were tested:
  - One where the government's current projections were followed. In this scenario, electricity and natural gas prices are projected to remain high until 2025 and then abruptly go back to their previous levels.
  - One where the government's current projections up to the year 2025 are followed, but a smoother decline to previous levels is assumed for the period 2025-2030. This scenario does not apply to oil prices, which government projects to remain high for longer anyway.

Please note that, apart from the change in lifetime cost savings, all other assumptions and factors have remained the same across the interim and the final stages of the evaluation to ensure comparability of findings.

## Gross Value Added

GVA savings were also included on the benefit side of this analysis. These included:

- Lifetime cost savings achieved by beneficiaries assumed to be converted into profits
- One-off additional revenue for the supply chain

A detailed outline of how GVA was calculated can be found in the next chapter.

<sup>39</sup> Data on forecast retail prices for the period 2020-2034 was drawn from the data tables 1-19 supporting the Treasury's Green Book guidance.

## Costs

The costs that were included on the cost side of the analysis were:

- Total grant funding
- Total match funding by beneficiaries
- Administrative costs

All three were provided by Ngage.

## Gross Value Added (GVA) analysis

Additional Gross Value Added (GVA) resulting from action taken by LCW beneficiaries was estimated calculating the following 2 components:

- Cost savings achieved by beneficiaries assumed to be converted into profits.
- Additional revenue for the supply chain.

For the benefits in the supply chain, data from the Annual Business Survey 2019<sup>40</sup> was used. Data on total turnover and total GVA per sub-sector was combined to estimate the proportion of revenue that is converted into GVA. The following assumptions were formulated:

**Table 6 GVA assumptions**

Fuel	Sub-sector (SIC code)	Assumed % GVA/turnover
Electricity	Electrical installation (43.21)	46%
Gas	Plumbing, heat and air-conditioning installation (43.22)	39%
Petrol	Sale of cars and light motor vehicles	10%

The factors above were subsequently applied on the total action costs (total funding) as provided by Ngage. Please note that, in order to ensure comparability, these factors have remained the same across the final and the interim stage of the evaluation.

<sup>40</sup> <https://www.ons.gov.uk/businessindustryandtrade/business/businessservices/datasets/uknonfinancialbusinesseconomyannualbusinesssurveysectionsas>



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