Local Carbon Oxford Project: Final Report

Final report for Local Carbon Oxford (LCOP), a project from Oxford City Council and Low Carbon Hub, funded by generous support from Innovate UK.

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Executive Summary

The Local Carbon Oxford Project (LCOP) was designed to address a critical non-technical barrier to decarbonising the city's non-domestic building stock: financing energy efficiency improvements for Small to Medium Enterprises (SMEs). LCOP created an innovative mechanism to connect local organisations seeking funding for energy efficiency improvements with organisations looking to contribute financially as part of their Corporate Social Responsibility (CSR) or Environmental, Social, and Governance (ESG) commitments.

The Challenge: Current non-domestic energy efficiency funding consists of sporadic, short-lived grants with tight windows that rarely support profit-making SMEs. The international voluntary carbon market suffers from questionable transparency, uncertain impact, and disconnection between buyers and benefiting communities. Oxford alone needs an estimated £478 million for non-domestic energy efficiency to achieve net zero targets.

Our Approach: LCOP developed a local alternative to traditional voluntary carbon markets, initially framed as "Area Based Insetting" but evolving towards Beyond Value Chain Mitigation with a bespoke methodology. This innovation created a contribution-based approach tailored for small-scale SME energy efficiency projects, simplifying financial flows and localising carbon investment.

Using a "Minimum Viable Systems" (MVS) approach, the project team iteratively developed and tested processes for:
- Evaluating and grading potential energy efficiency projects based on quality criteria
- Managing transparent record-keeping through public and private registers
- Facilitating contractual arrangements between funders and project developers
- Verifying completed projects and certifying carbon savings

Impact and Achievements (February '24 – June '25)
Financial Impact:
- Approximately £200,000 of third-party funding pledged. Of this, circa £10,000 has already been secured and spent locally, £20,000 secured but pending retrofit project matches, £140,000 under negotiation with a specific retrofit project and funder, and the remaining £30,000 contribution being considered by local funders but not yet secure.

- LCOP funding enabling one trial organisation to leverage additional external match funding for energy efficiency improvements.

Carbon and Energy Savings:

- Implementation of energy efficiency measures including LED lighting, loft insulation, and pipework insulation through four trials.
- Annual energy savings of 21,036 kWh from completed trial projects, with projected carbon savings of 5.35 tCO_2e in the first year.
- Potential for 178.14 tonnes tCO_2e savings annually if all projects in the Central Register received funding.

Engagement and Knowledge Transfer:

- Engagement with 135 local organisations on energy efficiency, with 29 expressing interest and 19 applying to join the scheme.
- Public application frameworks and guidance created
- Delivered informational webinars and resources to support participants.
- Knowledge-sharing with eight local authorities exploring similar initiatives

Next Steps: LCOP has established a foundation for continuing through:

1. *Project Pipeline Maintenance:* Maintaining a central register of deployment-ready decarbonisation projects.
2. *Ongoing Project Support:* Continuing validation, verification and certification for projects successfully matched during the pilot period.
3. *Alternative Funding Signposting:* Directing project developers needing immediate funding to alternative grants ahead of future matchmaking rounds.
4. *Institutional Handover:* Business case delivered to Oxford City Council Environmental Sustainability Team for future phase, integrating with Oxford's new Local Plan (due 2027).

Key Learnings: For organisations considering similar initiatives, key takeaways include:

1. *Carbon Market Complexity:* Voluntary carbon markets proved more complex and inaccessible for small-scale projects than anticipated. Methodology approval and verification costs were prohibitively high, leading to strategic pivot toward BVCM.
2. *Process Ownership:* Maintaining full in-house development of process tools proved invaluable for responsive iteration. Third-party platforms lacked necessary flexibility.
3. *Transparent Criteria:* Well-defined, transparent assessment criteria for both projects and funders, built confidence in the scheme. Feedback indicated LCOP forms were shorter and easier than equivalent grant applications.
4. *Local Focus Delivers Multiple Benefits:* Beyond carbon savings, local projects created community benefits, improved accessibility, and retained economic value regionally, resonating with SMEs through values-based messaging.

5. *Matchmaking Challenges:* Funder requirements often focused on voluntary, community and social enterprises rather than profit-making businesses, requiring careful navigation of diverse motivations and criteria.

1. Project Overview

Introduction

Oxford City Council and Low Carbon Hub secured grant funding from Innovate UK to run a "Pathfinder Project" as part of the Net Zero Living workstream. All projects in this workstream were expected to deliver and demonstrate innovative approaches to unlocking non-technical systemic barriers to delivery of net zero, and ran between 1st February 2024 and 30th June 2025.

Oxford City Council and Low Carbon Hub successfully ran the Local Carbon Oxford Project (LCOP), supported by Oxford Brookes Environmental Information Exchange. The project's goal was to address the non-technical barrier of financing energy efficiency measures on non-domestic buildings (i.e. building retrofit) for Small and Medium Enterprises (SMEs). The project scope was to design and trial a local scheme that matched Oxford-based SMEs who wanted to undertake energy efficiency measures in their building, with larger organisations in Oxfordshire looking to purchase carbon credits or who were looking to financially contribute to CSR or innovation activity. Transport-related carbon reduction measures (for example EV chargers), and measures applied to domestic buildings, were considered out of scope.

Problem statement

The availability of funding for energy efficiency and building decarbonisation projects is sporadic, delivered by a plethora of different national and local organisations and often limited to very specific geographies or sectors. Timescales are frequently short, with funding windows which require applications and installer quotations to be submitted in tight time scales. Funding routes often fail to become established and well known because they are so short lived. Very few funds will provide support for profit-making SMEs, with most funding targeted at charities, social enterprises and voluntary organisations. This funding landscape makes it hard for SMEs to navigate and secure funding for energy efficiency measures that decarbonise their buildings.

The pre-eminent solution for businesses wanting to fund carbon reduction beyond their own emissions inventory and value chain is the purchasing of carbon credits on the international voluntary carbon market (VCM). This differs from compliance carbon markets (e.g. the UK Emissions Trading Scheme) in offering businesses the opportunity to make voluntary (i.e. not mandated by policy or legislation) purchases to offset value chain emissions in pursuit of corporate net zero targets. Traditionally, this involves an

organisation (the buyer) providing funds to an intermediary (the credit distributer) to contribute to one or several carbon reduction or sequestration projects (the seller(s)) in return for an accredited amount of carbon. In this transaction, there is almost always no relationship between buyer and seller(s), and any potential benefit derived from the project is enjoyed by a locality or community completely remote from the buyer and their value chain.

Many businesses are turned off contributing to carbon reductions by this status quo. In general, the international voluntary carbon market is still considered a "wild west", with ever-changing and competing standards, and a lack of regulation and oversight. These issues have led to market pricing becoming a key challenge – the international voluntary market average carbon price was £5.25 per ton CO2e in 2023 – where the price currently paid for a tonne of carbon falls vastly short of the real-world social cost of carbon. Essentially, when funding projects on the international market, it has become increasingly difficult to know whether purchases are actually contributing to carbon savings and social good.

Some companies get around this by voluntarily purchasing higher-integrity – and therefore higher-cost – credits, but in doing so purchasers are still relying on profit-making intermediaries to ensure funding is flowing into projects and delivering the promised carbon savings.

There also remains legitimate unanswered moral and ethical questions around the transparency and effectiveness of carbon projects funded through the international market, and the degree to which carbon markets enable companies to "greenwash" – i.e. purchasing offsets as an excuse to continue emitting/polluting.

Project vision and approach

To address the problem statement, the vision was to develop a hyper-local scheme for the City of Oxford to divert funds traditionally spent by local organisations on the international voluntary carbon market towards local carbon reduction projects. The original intent was to link purchases of a local authority-certified carbon credit with the facilitation of SMEs accessing capital for energy efficiency. The intent was for this to have multiple benefits: Firstly, to drive down carbon emissions within the local authority area (supporting Oxford on its journey to become a net zero city by 2040); secondly, to provide stimulus of both the local energy efficiency supply chain, and the local economy more generally, by keeping spend on carbon projects local.

The project took an iterative approach to scheme design by using a "Minimum Viable System" (MVS) process, which is similar in nature the agile project management approach whereby a basic version of the "product" can be launched quickly to test core

ideas and processes, to gain feedback for future iterations. Further information on the MVS trials is available in Chapter 2.

Initially, the intention was to utilise an existing methodology and associated platform owned by Anthesis Consulting called "Area Based Insetting" (ABI)[1]. However, the challenges presented by the voluntary carbon market (see section above), and challenges utilising and testing Anthesis' methodology and associated platform through the first MVS trials, meant that this approach was considered unviable by the project team, within the project scope.

As a result, the project team set out developing their own tailored approach and methodologies to assess the quality of energy efficiency projects, and the system architecture needed to link these projects with organisations interested in funding them. Research into carbon markets and approaches taken by other local authorities, and the public sector more generally, on carbon offsetting and insetting helped to shape versions of the new scheme's processes, procedures and methodologies.

This early market testing and agile approach, combined with background research and engagement with third party subject matter experts, enabled the vision to evolve from what the project team *thought* was needed by the market, into a streamlined process for what *was actually* required: Diverting private finance towards local SME energy efficiency, therefore helping to overcome finance barriers. This ultimately meant that the project moved away, wholesale, from carbon crediting, towards an approach focussed on Corporate Social Responsibility (CSR) and Environmental, Social and Governance (ESG). This renewed process leaned into the Science Based Targets Initiative's (SBTi) Beyond Value Chain Mitigation (BVCM) approach, which focuses on corporate contributions to decarbonisation beyond their own value chains.

One of the most innovative elements of the project was the development of a new methodology for assessing the quality of small scale energy efficiency projects in the non-domestic sector. Most methodologies already in existence, and those utilised in the voluntary carbon market, are only applicable to much larger scale energy efficiency schemes (i.e. not an achievable scale for Oxford SMEs) or for domestic retrofit. Another innovative aspect was the testing of a new matchmaking financial model, which simplified financial flows for SMEs by connecting them directly with potential carbon purchasers, and removing the "middleman". Through trying to disrupt local spend on carbon credits, a new source of finance for SMEs was theoretically unlocked. In doing

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[1] https://www.anthesisgroup.com/insights/anthesis-group-to-develop-dedicated-insetting-solution-for-uk-local-authorities/

so, the scheme was trying to move away from more traditional grant financing, which tends to rely on finite pools of philanthropic or central Government funding.

The project was predominantly resourced by grant funding from Innovate UK, with Low Carbon Hub providing match funding. Without this generous support, it would not have been possible to resource the staff time required to develop the scheme, engage extensively generate a pipeline of interested SMEs with energy efficiency projects, and develop relationships with businesses willing to fund them. The LCOP model built in an administration fee, levied on each transaction completed (10% of total transaction value, set at a rate competitive with the VCM), that was intended to provide some ongoing resourcing for the scheme. At the conclusion of the pilot period, the volume of transactions proceeding through the scheme were not sufficiency to self-sustain the quantity of staff resourcing needed.

Value proposition

The project team felt it important that LCOP be a value-led scheme, and therefore developed the following value propositions. These were written from the perspective of the Project Developer's or Funder's own organisations.

Engaging with LCOP as a Project Developer helps our organisation:

- *Fund the energy efficiency measures that save carbon and cut down fuel bills.*
- *Do the right thing for the environment, our community and our staff.*
- *Demonstrate our values and CSR commitments.*
- *Justify energy saving improvements to our buildings and support key decision makers to act on energy and climate issues.*
- *Improve the payback time and business case for energy efficiency measures.*
- *Catalyse ideas into action and demonstrate ourselves as thought leaders in this space.*

Engaging with LCOP as a Funder helps our organisation:

- *Gain access to a pipeline of local projects which offer tangible social and environmental benefits.*
- *Meet our specific Corporate Social Responsibility requirements.*
- *Develop meaningful connections and hear about our impact within the local community.*
- *Demonstrate our values and build relationships that can lead to collaboration and further action.*
- *Make a meaningful difference in the community that resonates with key stakeholders and enhances employee satisfaction.*

These value propositions were helpful in informing how the processes and procedures within LCOP were developed. They were also used to support the tone and messaging used within engagement and communications with Project Developers and Funders.

Non-technical barriers

The project sought to address the financial barrier to energy efficiency works on non-domestic properties by linking local organisations and businesses seeking to fund local decarbonisation, with organisations in need of financial support to deliver carbon-saving energy efficiency activities.

It was believed that LCOP would fulfil an unmet market need: Current grant funding for the installation of energy efficiency measures (either from national or local government, or elsewhere) usually focusses support on domestic properties, the charitable/not for profit sector, or on innovation in developing technologies themselves. As such, the project team identified finance as a barrier to SMEs implementing energy efficiency, as grant funding is rarely available to help with the cost of installation, which is often significant. Energy Solutions Oxfordshire (ESOx) estimated that the total financial need for non-domestic energy efficiency in Oxford alone is £478m. This figure is based on scaling up the average cost of ESOx-recommended energy efficiency measures (£96,500 per organisation) across the number of SMEs in Oxford (4950[2]). This figure excludes public sector and community sites, so the scale of energy efficiency need for the city as a whole is likely to be much larger.

Large profit-making organisations (not classed as an SMEs) typically have greater resource in terms of staff expertise (e.g. dedicated Energy or Sustainability Managers) and capital to be able to identify energy efficiency measures, develop business cases, and implement them. They also have more legislative drivers. Although there may still be some affected by financial barriers, these types of organisations were considered out of scope as project developers (recipients of funding).

2. Impact

Local Carbon Oxford (LCOP) matchmaking process

The primary output of the Innovate UK-funded project was the Local Carbon Oxford matchmaking scheme and its constituent elements. Figure 1 below sets out the intended LCOP matchmaking process and the below section provides a short narrative description.

Organisations seeking funding for their energy efficiency project, known as Project Developers, apply to the scheme through a two-stage application: Firstly, a light touch

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[2] https://www.oxford.gov.uk/statistics-oxford/economic-statistics [accessed May 2025]

expression of interest, which is reviewed by the project team to ensure it meets the scheme's basic requirements. Secondly, following a successful EOI, a full application that measures a project's quality and suitability against the scheme's funding criteria.

A developer's full application is assessed (validated against the funding criteria), graded (based on quality, A – D) and logged on the scheme's Central Register (a private version, recording full project details, and a public version containing limited redacted information) by the LCOP team, and the applicant informed of the outcome. This process may be iterative if additional information or clarification is required (which has been the case with several applications, and a source of learning on how to improve the process). Funders go through a more basic application process containing a single stage that passes them through a basic filtering and exclusion criteria.

Once a Funder is admitted into the scheme, the project team reviews the Central Register and approaches them with a selection of projects deemed to be a good match to their requirements. If a match can be found, Funders, Project Developers and Oxford City Council proceed to the contracting stage, which secures the funding for the project and enables the Council to collect an administration fee (10% of the overall project value).

Following contracting, the Project Developer completes the installation of the energy efficiency measures according to the agreed scope. The LCOP team then completes the verification process, which involves assessing the installation (either in person, or through provided evidence) against the specification in order to ensure that the predicted carbon savings are likely to be delivered (note that actual carbon savings are not verified on an ongoing basis by the scheme). If verification is passed, the Project Developer is paid by the Funder and Oxford City Council issues certificates to both parties.
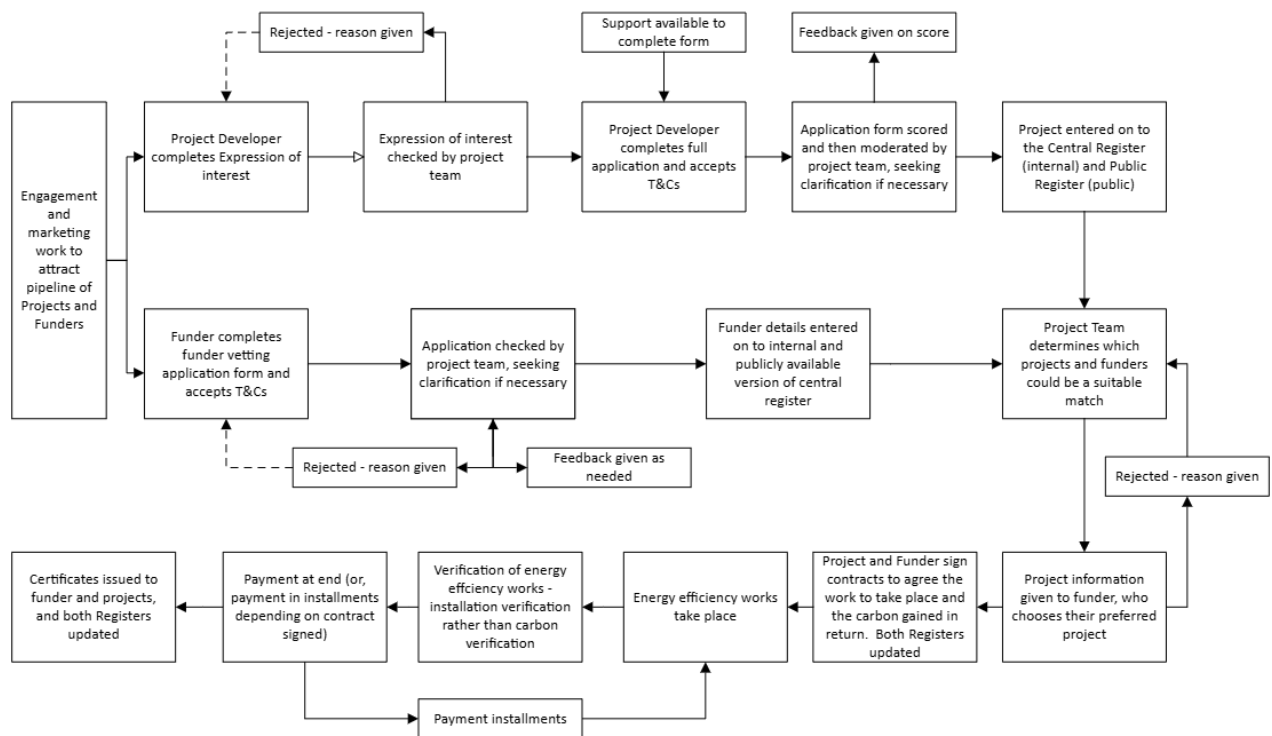
Process development

The LCOP process was developed iteratively through a test and learn approach that focussed on the delivery of "Minimum Viable System" (MVS) trials. As part of these trials, the scheme contributed up to 50% of the total project costs to four Oxford-based organisations looking to improve the energy efficiency of their buildings. In return, organisations who participated in the trials were then utilised as test cases for different elements of matchmaking process. Organisations supported through the trials included: an effective philanthropy charity, a family museum, a homelessness charity and a clothing outfitter.

The energy efficiency improvements facilitated by LCOP through the MVS trials were:

- LED lighting upgrades, resulting in reduced electricity demand and light quality improvements.
- Loft insulation improvements, resulting in reduced demand for gas heating and improved thermal comfort.
- Bespoke pipework insulation, resulting in reduced heat loss from boiler rooms and reduced demand for gas heating.

Estimated annual energy savings from all energy efficiency measures implemented through the four MVS projects total 21,036kWh. In the first year, these measures are expected to save 5.35 tCO$_2$e altogether.

In addition to helping test processes, the MVS trials also enabled the LCOP team to develop case studies that were then used to encourage other organisations to adopt similar measures to cut their fossil fuel use and energy bills. The MVS participants were carefully selected to represent a wide range of non-domestic organisations in the city, ensuring synergy with other prospective project developers were able to spot their similarity with the MVS participants.

Additional non-carbon co-benefits arising from the MVS trials include:

- Improved accessibility in spaces fitted with LED lighting. Particularly in spaces frequently attended by vulnerable service users, fluorescent lighting can contribute to sensory overwhelm, LED lighting has less harsh qualities.
- More capacity for operational activities which have community benefits. Lower energy bills resulting from energy savings and lower maintenance costs due to the longer lifespan of measures such as LEDs lead to a reduction in overheads; savings can be diverted to critical work in the community.

Each MVS iteration gave the project team a better understanding of the time, resource and skills required to complete an LCOP transaction, which helped to inform the development of a business case for a second phase of the project. Additionally, by facilitating the MVS trials, the project team developed a better understanding of the preferred engagement techniques for small, local organisations. The project team's most effective interactions with MVS participants were face-to-face meetings which helped build trust and enable applicants to resolve any concerns they have.

Key deliverables and outputs

Through the development, testing and deployment of the LCOP scheme, the following key outputs have been delivered:

- A detailed set of criteria that defines what a best practice energy efficiency project looks like, against which checks are undertaken to rate a project's quality. This included: energy efficiency projects need to be fully developed, specified and costed, with all the permissions in place for it to proceed, a defined carbon savings impact, and a clear rationale that the measures would not take place without financial support (in this case, through the LCOP scheme).
- A tested methodology that translates the above criteria into a practical project evaluation system. The assessment generates an overall quality score across 6 categories: Essential (which are pass-fail), equalities, project scope, cost quality, additionality quality and project durability.
- A validation, verification and certification process that ensures carbon savings are proportionate, practical and likely to be delivered.
- A defined set of criteria for funders that establishes which financial partners the LCOP scheme will engage with. The evaluation includes: A "Caution" list -

identifying organisations requiring additional scrutiny and an "Exclusion" list - automatically disqualifying organisations from certain sectors. These lists target potential funders whose core business or primary revenue sources come from environmentally harmful activities or ethically questionable operations which contradict the scheme's sustainability ethos.

- A methodology that translates the above criteria into a practical assessment of prospective funders, resulting in a pass-fail response.
- A pair of internal and external "Registers" (public and private) that record Funders and Project Developers that have been successfully admitted into the scheme, allowing a record to be made of the pipeline of projects and funders and ensuring high levels of transparency in the process.
- A template tripartite legal agreement, to be signed by the Funder, Project Developer and scheme administrator (Oxford City Council) that secures the funding offered to a specific project and allows Oxford City Council to collect an administration fee from the Funder (to contribute towards the scheme's running costs).
- Supporting documentation and promotional collateral used to manage the LCOP process and to engage with potential users. This includes market research reporting to inform the need and design of the LCOP scheme, as well as a full communications plan and tested messaging hierarchy.

Following development of the key outputs outlined above, it was important for the project to explore potential future resourcing avenues that could be deployed following the IUK funded period. With that in mind, the project team developed a mechanism to collect an administration fee from project funders, initially set at 10% of the overall funded project value. This was set based on comparison with intermediaries in the voluntary carbon market, who typically charge 10% - 15%, but in some cases as much as 30%[3]. However, to cover staffing costs utilising revenue raised from administration fees alone, it was clear that the financial scale of LCOP would need to increase to process several hundred thousand pounds of transactions per year.

Therefore, the project also drew on technical advice partners (TAPs) City Science and Bankers without Boundaries, provided via Innovate UK, to investigate alternative financing models. This piece of work primarily looked at whether LCOP could be matched with another financial instrument – in this case, a revolving loan focussed on non-domestic energy efficiency targeting the able to pay sector – and utilise income generated from interest rates to cross-fund both processes. The output from this work was an Excel model which simulated different scenarios with varying loan quantities,

[3] Carbon Market Watch, "Secretive Intermediaries: Are carbon markets really financing climate action", p14

size, duration and interest rates to determine a combination that could generate sufficient return to cover resourcing needs.

Key achievements and outcomes

LCOP has achieved the following impact:

- Significant funding secured for local decarbonisation: Approximately £200,000 of 3rd party funding was pledged by funders and project developers, of which:
    - Approximately £10,000 has already been secured and spent locally (match funding by organisations who received funding through MVS pilot projects)
    - £20,000 has been fully secured through a legal agreement with the Council, but not yet matched to projects.
    - £140,000 is under final negotiation between funders and retrofit project.
    - Remaining c. £30,000 is being considered by local funders but is not secured.
- If all projects on the Central Register received funding support through LCOP, this could leverage additional support through match funding contributed by project developers, which would increase the impact value.
- Demonstrable contribution to Oxford's 2040 net zero target: The "MVS" projects already saving 5.35 tonnes CO2e per year. If all projects currently in the Central Register received support, the carbon saving would amount to 178.14 tonnes CO2e per year.
- Engaging local businesses in decarbonisation: Over the course of the pilot, the LCOP team proactively engaged 135 local organisations about energy efficiency. Of these, 29 organisations and businesses expressed an interest in getting involved in LCOP, and 19 subsequently applied to join the scheme as either Funders or Project Developers (despite the scheme only being open to applications from February 2025).
- Extensive external engagement: Through the development and delivery of the scheme, the LCOP team engaged extensively and strategically with stakeholders both local and national. The team advised and shared learnings with 8 other local authorities exploring similar local carbon market projects, and engaged in dialogue with colleagues in the Department for Energy Security and Net Zero's team that is shaping national policy on SME decarbonisation.

3. Challenges faced by your project

Preamble

As detailed in Section 1 – Project Overview, the Local Carbon Oxford project had to go through a series of iterations and learning loops in order to deliver a successful project and a set of high-quality outcomes. The project team adopted a "fail fast" methodology that focussed on finding and deploying rapid solutions to challenges as they arose. This enabled the team to work reactively to build an eventual solution that has been strengthened, rather than burdened, by the challenges encountered along the way, and is therefore more resilient to future challenges that may occur.

Due to the ambition and complexity of the project, there were a wide range of challenges that were encountered and required a response, a selection of these are highlighted below.

Challenges in the design and delivery process

Part of the ambition of this innovation project lay in the fact that there was limited precedent for a local authority seeking to design and establish a local marketplace for carbon (though since the establishment of the project, other local authorities have started to move into this space). There was therefore no clear precedent for the team to follow, meaning an entirely new methodology, process and governance structure needed to be created before a product could be publicly launched. There were several key challenges encountered through the design process and delivery, they included:

Language: One of the key challenges associated with process design was around determining a lexicon fitting for LCOP. Given that the project team began by working within the ABI framework (see above), in the early stages of the project, much of the language used was rooted in the traditional vocabulary of carbon markets, but as the approach shifted away from carbon crediting this language was no longer appropriate. For example, concepts such as "permanence", a critical pillar of traditional carbon markets, felt inappropriate in the latter stages of the project given that the scope of LCOP was limited to avoidance rather than removal projects. Such challenges were exacerbated by the wide range of potential project funders and beneficiaries. With many stakeholders coming from different sectors and with varying levels of familiarity with carbon offsetting concepts, there was vastly different understanding of linguistic terms.

It was difficult to create a language that reflected carbon market best practice, which was consistent with the eventual LCOP approach, and was understandable and translatable across projects and sectors. However, through desk-based research, stakeholder discussions and extensive consultation with the Council's Chief Scientific Advisor, an appropriate and consistent lexicon was subsequently achieved for LCOP's core processes, principles and procedures.

Mandate: Another challenge stemming from the lack of precedent for LCOP was that Local Government does not have a clear mandate to operate in the offsetting space as one of its statutory functions. While this was a foreseen challenge, receiving grant funding from Innovate UK was essential for the project to allow staff resourcing to tackle net zero in an innovative way and bring benefit to local communities by doing so. This challenge was exacerbated by there being no specific local policy requiring organisations to offset locally, and therefore there existing an absence of policy drivers to encourage businesses to buy into LCOP. Potential solutions to this issue were explored extensively during the project, and this challenge in part informed the strategic shift towards pitching projects to funders as recipients of CSR or ESG spend. Oxford's upcoming Local Plan is also now being considered as an opportunity to implement new policy that will plug this gap (although the Local Plan will not be implemented until approximately 2027 – well after the end of the IUK funded project).

Challenges for external stakeholders: Project funders

A core tenet of the project was to utilise the grant funding received from Innovate UK to build a scheme that secured private sector funding for decarbonisation projects – spending government money in a way that delivered substantial match funding, and therefore outsized impact. Success in delivering this principle therefore required significant and deep engagement with external stakeholders, with organisations likely to release funding being a key audience (known in LCOP as "Project Funders"). A wide range of challenges occurred during this engagement process, the following were key to informing the eventual successful design and delivery of LCOP:

Offsetting and competing standards: Organisations working towards carbon neutrality under PAS 2060, or those with net-zero targets, need to purchase offsets which are certified on the voluntary carbon market (VCM) to claim the carbon against their own emissions inventories. During the funded project lifetime, LCOP projects could not be certified in line with this requirement. This is because VCM certified credits need to be consistent with an accredited scheme (e.g., The Gold Standard) and the validation and verification methodologies for specific energy efficiency technologies eligible under LCOP were not available. Additionally, the cost of validating LCOP projects to the required VCM standards was far too high for a local scheme, as the VCM is geared towards projects operating at a much larger scale. This provided a key challenge for LCOP in not being able to provide "certified carbon credits", therefore cutting out a potentially major section of the funder market. This challenge, alongside some of those laid out above, informed the strategic pivot away from carbon offsetting towards Beyond Value Chain Mitigation (BVCM).

Carbon pricing: As well certification and verification challenges, the carbon market also presented a cost issue. Justifying a substantially higher cost per tonne of CO_2e relative to offsetting credits on the VCM was a significant challenge for some organisations considering funding LCOP projects. For these organisations, VCM-certified credits on the international markets were being used as a price benchmark. From the beginning, it was clear that the carbon price (cost of project / CO2e) of projects coming through LCOP was never going to be price competitive with the international market – therefore again cutting out a large chunk of the potential buyer market who will prioritise competitively priced projects. The international market average carbon price was £5.25 per ton CO2e in 2023, whereas the average carbon price across the LCOP MVS projects was £634 per ton CO2e.

The project pivot to the BVCM approach helped the team to re-frame conversations around project price, since the focus shifted from $£/tCO_2e$ to delivering local climate action with wider co-benefits. This approach also made a more compelling case for projects priced to reflect the true social cost of carbon, which the international market fails to do.

Legal requirements: Early engagement with potential funders demonstrated the need for template legal contracts to facilitate the transaction between Project Developer and Funder. One organisation fed back that the need to leverage internal resources to draft a contract was a barrier to engaging with LCOP; the LCOP team fed this into process development and drew on the services of the OCC legal team, who prepared a tri-partite template contract to be signed by the Project Developer, Funder and OCC. This challenge fed into the wider theme of both potential funders and funding recipients being time and resource poor, which underscored the importance of developing a comprehensive end-to-end service that focussed on reducing barriers to engagement.

Challenges for external stakeholders: Funding recipients

As well as relying on voluntary engagement with external funders, LCOP also relied on the willing participation of organisations seeking funding for the implementation of energy efficiency measures. This was foreseen as one of the most challenging elements of the project, so some mitigations were put in place from the beginning to manage this element. There were however still several key challenges the team encountered engaging with potential funding recipients:

Organisational capacity and culture: Attracting participation from SMEs – the original primary target beneficiary audience for LCOP - was an engagement challenge faced by the project team. Many businesses—especially smaller ones—have limited time and capacity to think about energy efficiency, even when they know it could save them money in the long run. For some, especially tenants, the benefits of retrofit may go to

the landlord, making investment less attractive. Others are cautious, fearing bureaucracy or lack of follow-through. Reaching these businesses, despite these challenges, required the building of trust, simplifying of processes, and tailoring of messaging to highlight not just cost savings but alignment with company values and local pride.

To help overcome some of these challenges, the project team developed comprehensive application guidance for project developers, hosted and recorded introductory webinars detailing the expectations on project developers, operated an open-door virtual "helpdesk" that responded to developer questions and queries, and offered 1:1 support for under-resourced applicants.

Relationships and expectations: The project team had to invest time in building relationships with prospective project developers and funders, understanding both sides' needs, and providing tailored support. This intermediary role demanded local knowledge, administrative support, and enough flexibility to respond to individual cases—all of which were challenging within the tight staffing and budget constraints of the project.

Similarly, timing, expectations, and criteria did not always align neatly between project developers and funders willing to contribute. Some recipients required funding on short timescales, while some funders had relatively slow internal processes or specific requirements around project type, location, or visibility. Simultaneously managing the expectations of prospective project developers and funders, and matching their requirements, needed significant time resource within the project team.

Overall, the team ended the project satisfied that the above challenges – and others encountered along the way – were successfully managed and mitigated to the extent possible within the limits of the project. The resulting product, which is now being supported by Oxford City Council to find funding to support a second phase, is more practical, rigorous and accessible as a result of the team's responses to these challenges. The team recognises, however, that it is not a perfect scheme, and continued learning and improvement will be required as the project develops.

4. Next Steps

Sustaining changes in the local authority

The first matchmaking round for Local Carbon Oxford ended on June 30th, at the conclusion of the Innovate UK-funded pilot phase, and at this time all proactive work on the scheme paused. The end of the pilot phase provided Oxford City Council an

opportunity to review the successes, challenges and learnings from the pilot and plan a way forward.

While proactive activity on the scheme is paused, interim arrangements have been implemented to ensure that changes delivered through the scheme are sustained:

- LCOP developed a pipeline of high quality, ready-to-deploy decarbonisation projects that require funding to proceed. The register of these projects is being kept in place to take advantage of future funding opportunities as and when they become available.
- To ensure this pipeline continues to be maintained and updated, light touch expression of interest forms will remain open for prospective project developers and funders. This will also help to ensure that future matchmaking rounds are not starting from square one, being able to immediately tap into a range of projects and funders.
- All projects successfully matched with a funder during the pilot period (before June 30th) will continue to be supported by Oxford City Council through the LCOP process. This will ensure they are delivered, validated and verified according to the methodology – and that Funders and Developers receive certification of their involvement with LCOP.
- Project developers requiring energy efficiency advice, or more immediate funding in advance of future matchmaking phases, will be passed to LCOP partner Low Carbon Hub, who have recently established the Green Fund, a capital grant fund to support retrofit projects.
- The entire LCOP scheme, its processes and procedures, have been recorded and documented in a detailed "handbook", meaning colleagues delivering future LCOP matchmaking rounds will be able to immediately pick up the existing methodology and approach, rather than creating anything new.
- A clear business case has been developed for a second phase of the scheme, and the project has been handed over wholesale to colleagues in Oxford City Council's Environmental Sustainability team. It is anticipated that future phases of LCOP will be integrated into the delivery of Oxford's new Local Plan, due to come online in 2027.

During the final months of the pilot phase, the LCOP team engaged extensively with colleagues from other local authorities, both inside and outside of the Future Ready funding cohort. Several local authorities expressed an interest in learning from, and in some cases adapting wholesale, the LCOP methodology. This engagement helped to ensure that the outputs, learnings and virtues of the scheme were shared outside of the immediate project partners.

EDI changes

As part of project initiation, the city council mandated the completion of an Equality Impact Assessment, in line with the Public Sector Equality Duty. However, given the public-facing nature of LCOP, it felt appropriate to explore Equality, Diversity and Inclusion in more granular detail. Therefore, the project team prepared an EDI position statement and received feedback on this from a postdoctoral researcher at University of East Anglia. While feedback was received late in the project and therefore could not be implemented during the funded trial period, the team has taken away a number of key learnings from the exercise, and it is intended that EDI focussed actions will be brought into the next phase of the scheme.

For example, it was suggested that the project team go beyond using plain English in process documentation to accommodate diverse needs. In future iterations of public-facing documents, the project team will ensure that universal design principles are applied so that, to the greatest extent possible, the LCOP process is usable by all people. This could be addressed in part by thoroughly testing documents and forms with a range of assistive technologies[4] to ensure compatibility.

Partner changes

LCOP was delivered in partnership with Low Carbon Hub and Oxford Brookes' Environmental Information Exchange. Going forward, Low Carbon Hub will be integrating the EDI learnings into their own data collection and monitoring of clients within their Energy Solutions Oxfordshire (ESOx) pipeline – which was used in LCOP to source project developers. This will support the uncovering of any possible bias in who benefits from their free building energy assessments. Low Carbon Hub will continue to provide another potential project developers and contacts to Oxford City Council for future phases of LCOP.

5. Key Learnings

A major barometer of success for innovation projects is the breadth and depth of learnings that are developed and shared through the project. In the case of LCOP, the team came away with two key categories of learnings: System-level learnings about the wider carbon crediting and energy efficiency ecosystems, and more detailed learnings about scheme procedures and processes developed through piloting and trialling.

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[4] Government guidance on testing with assistive technologies: Testing with assistive technologies - Service Manual - GOV.UK

System-level learnings

The kind of certified carbon credits that are purchased and traded on the voluntary carbon market do not solve the SME finance problem for energy efficiency (as set out in "Section 3 – Challenges") - in part because they do not generate capital upfront to be used on project deployment. Early research from the project team found that most certified carbon credits are sold retrospectively (i.e. once a project has already been implemented and the carbon already saved/sequestered), rather than proactively. With this in mind, the LCOP scheme sought to implement a novel approach by linking proactive carbon credits with energy efficiency.

The international voluntary carbon market is far more complex, systematised and inaccessible for smaller-scale projects to enter than the team initially appreciated. Carbon crediting agencies require that methodologies and protocols undergo rigorous testing and review before their implementation, an unrealistic prospect for any new LCOP methodology relative to the project's staff and financial resourcing. This was particularly the case given the diversity of energy efficiency measures and technologies the scheme aimed to support. The price of getting a new project methodology approved and verified, and an organisation accredited as a Designated Operational Entity (DOE), is prohibitive for a trial scheme like LCOP. Similarly, there is a significant cost to rigorous verification that assures emissions reductions are real, permanent and independently assessed.

Moreover, voluntary carbon offsetting principles investigated through desk-based research were challenging to align a new supply-side intervention, such as LCOP, with. The Oxford Offsetting Principles are demand-side focussed, and the ICVCM's Core Carbon Principles are more appropriate for methodologies of a much larger scale. For example, some mandatory governance features which would apply to LCOP were not practicable to develop and test within the funded trial, such as a public consultation process and grievance mechanism.

To be confident that transactions completed through LCOP constituted a "carbon credit" (either a local authority-backed version or an international certified credit), verification of *actual* carbon savings resulting from energy efficiency measures was required. Ongoing performance verification of this kind is incredibly resource and skills intensive (far beyond the resources available to Oxford City Council during the pilot) and requires the project developer installing the energy efficiency measures to have accurate and sufficient energy usage data. As well as the capacity and technology to monitor ongoing performance, in order to provide the required information for verification calculations. For smaller organisations, this was always going to be an impractical data and expertise burden. The project team subsequently learned that the most appropriate and practical verification they could carry out in most cases was to check that the energy efficiency measures were installed in accordance with the agreed

specification and therefore could *reasonably* be expected to generate the estimated carbon emissions reduction. Without the ability to fully verify actual carbon savings performance, LCOP transactions were unable to be reasonably considered a carbon credit.

Building on the experience of trying to align with the international carbon market, the project team investigated Beyond Value Chain Mitigation (BVCM) as a potential alternative to traditional carbon crediting approaches that focus on emissions attribution. Originating from the Science Based Targets initiative (SBTi) Corporate Net-Zero Standard, BVCM states that companies should take action or make investments outside their own value chains to reduce or remove carbon emissions in addition to their near-term and long-term science-based targets. For example, a company could provide annual support to projects, programs and solutions that provide quantifiable benefits to the climate, especially those that generate additional co-benefits for people and nature. BVCM encourages businesses to uphold the highest standards of corporate net zero, and aligns with the "contribution rather than compensation" approach espoused by the Oxford Offsetting Principles. The project team felt that BVCM provided a more appropriate and rational framework and route-to-market for LCOP, rather than a traditional carbon crediting approach. The team also felt that this strategic and framing shift was likely to widen (rather than restrict) the pool of potential funders.

Pilot trial learnings

Processes and methodologies

In the early stages of the project, the team found that Anthesis' Area Based Insetting platform was not sufficiently mature to facilitate a complete end-to-end transaction between project developer and funder. It required the project team to undertake several manual actions to facilitate transactions, and it failed to provide a legally binding grounding for the funding relationship between the parties. Although the project team could identify changes which would support the pilot, alteration of the platform was outside of the project team's control, meaning that the user interface could not be readily customised in response to user feedback. Through recognising that Anthesis' platform was unviable for the needs of the project, the team came to understand that for, novel mechanisms like LCOP, full ownership and in-house development of key scheme processes and tools is invaluable for reflexive project development.

While designing the new LCOP methodology, the project team found that key performance measures adapted from carbon market methodologies – including additionality, durability and verification – provided a robust framework to meet the BVCM approach. This required careful balancing between demonstrating the burden of proof and the realistic position and capabilities of project developers. This specific learning opened ongoing critical discussions within the project team around how to

ensure an equitable and just application process, considering the broad range of project developer types, needs and circumstances.

Pilot implementation

Across the MVS trials, the project team found that the most quick and efficient partner relationships were with organisations whose main point of contact worked in facilities management. Those who had facilities experience were readily able to obtain installer quotations and to understand LCOP evidence requirements. This learning helped the project team to understand the potential support requirements of new applicants, indicating a barrier for smaller organisations without the benefit of this kind of staff resource.

Feedback from MVS trial participants on the new methodology for assessing the quality of projects indicated that the newly generated application forms were shorter and easier than equivalent grant applications in the energy efficiency or capital works space. In designing the LCOP methodology, the project team were mindful to minimise inputs required from project developers to ensure the process was accessible for organisations of all sizes. Feedback from MVS trial participants enabled the project team to develop the expression of interest and application forms iteratively, applying continuous improvements to enhance usability.

One organisation that participated in the MVS trials was able to leverage external match funding for their energy efficiency improvements as a result of financial support from LCOP. This demonstrates the potential for LCOP and similar schemes to trigger a multiplier effect, maximising fundraising potential for local decarbonisation in Oxford.

Early feedback from SMEs, funders, and external stakeholders prompted changes to how the project was communicated, and how support was delivered. For example, following early engagement the project team shifted towards values-based messaging—framing the project around community benefit, business identity, and local leadership on climate action—based on learnings that this kind of messaging resonated more strongly with both local SMEs and potential funders.

Funder engagement

The project team engaged with several potential funders as part of early-stage market research activities. This engagement was broadly positive and the conceptual basis for LCOP was well received. However, initial discussions were framed around local offsetting, which some funders felt was not appropriate for their organisation. The project team re-engaged one of these organisations following the pivot to BVCM and found that the framing shift made the funding proposition more attractive, because it better aligned with the potential funder's CSR goals.

While the project initially set out to specifically address the funding gap for SMEs, engagement with potential funders revealed that the majority were more interested in supporting voluntary, community and social enterprise (VCSE) organisations rather than profit-making businesses. The early market research also highlighted that funders had both diverse funding motivations and requirements. Due to the short length of pilot (curtailed by the strategic shift towards a new methodology), it proved hard to recruit a wide range of project sizes and types to suit all funder requirements, making successful funder-project matches more challenging. For example, the team engaged with a funder that was looking to support a not-for-profit organisation within a tight micro-geography, close to their headquarters, who would be implementing energy efficiency measures within one financial quarter. Requirements this specific proved impossible to find a match for within the time window available.

Impact

While the scheme's narrow scope was appropriate for the innovation pilot, it limited the project's potential reach and impact. For example, geographical confinement to Oxford city, and the focus on non-domestic energy efficiency, limited the number of appropriate projects for the developer pipeline. Accordingly, the project team had to turn away good quality proposals which fell outside the defined LCOP scope. By reassessing and potentially broadening the scheme's scope, LCOP could expand emissions reduction potential. This will be specifically explored for future phases of the scheme

Learnings Conclusion

Reflecting on the pilot learnings, the project team were satisfied they had applied insights to design a process fit for operational use within the set scope. With every piece of feedback from trial participants, the project team gained further insight into the user experience and applied improvements to the scheme's processes accordingly. Future phases of LCOP could generate further learnings to understand:

- Building greater equity into the project developer application process;
- Expansion of scheme scope and what this could mean for process development, external communications and potential for increased carbon reductions, and;
- The kinds of projects that are most attractive to funders.

6. What Could Others Use or Replicate?

Project outputs

LCOP has produced the following tangible outputs that are already freely in the public domain, or have been made available on request to organisations signed up to the scheme:

- Two-stage project developer application for projects in need of funding: (1) Expression of Interest and (2) Full Application. The online forms are currently available here and here. These may be archived or modified at project end, interested parties can obtain copies on request.
- Funder application: This is a single step process and single form, available here. This may be archived or modified at project end, interested parties can obtain copies of the questions on request.
- Two video webinars accessible via the LCOP webpage here. They provide an overview of the scheme and its processes to potential applicants.
- Full guidance documentation for potential funders and project developers is available on request. This sets out detailed support for completing the application forms.
- A webpage providing an overview of how the scheme functions.
- This report is also a publicly available document, and provides key findings, learnings and insights from the development of LCOP.

Requests to access the documentation referred to above (where not available online) can be made to lcop@oxford.gov.uk.

In addition to these outputs that are already publicly available, the project team holds full internal documentation of all LCOP processes and methodology. To maximise the impact and legacy of the project, Oxford City Council is happy to share the full methodology with other local authorities (or local organisations) seeking to set up similar schemes within their local areas (on a non-commercial basis). Requests can be made to LCOP@oxford.gov.uk and will be assessed on a case-by-case basis.

Anna Hanchar, MSc candidate at the University of Cambridge, is producing academic research on governance strategies and barriers in local authority engagement with small and medium-sized enterprises. The LCOP project team has collaborated closely with Anna on the research, which will be made available to academic audience.

Useful resources

Early in the development of the LCOP methodology, the project team came across the Carbon Coalition[5], an offsetting initiative established by The Alliance for Sustainability Leadership in Education (EAUC). The coalition's main objective to produce a portfolio of robust offsetting projects investors could have confidence in was well aligned with LCOP. Their open-source due diligence and scoring methodology was highly informative in the development of the LCOP methodology. In particular, the additionality criteria embedded in the Carbon Coalition scoring methodology helped the project team to take a multi-faceted and nuanced approach to assessing project additionality.

The Core Carbon Principles (CCPs)[6] were also informative to the development of the LCOP scheme. There are ten principles within the CCPs which can be grouped into three high-level categories: governance, emissions impact and sustainable development. Each principle has associated detailed criteria, some of which were achievable relative to the scale and duration of LCOP, and some of which were deemed out of scope for the funded trial. While, during the funded trial, it was unfeasible to fully map the CCPs onto LCOP, they provided a benchmark for the scheme to work towards in terms of project integrity, which is competitive with the wider voluntary carbon market.

Key Stakeholders

Stakeholder engagement has been key to the project's development. In addition to wide ranging co-design with local businesses and organisations interested in becoming Project Developers or Funders, the project team delivered extensive engagement with local stakeholders and national experts. They included representatives of the following organisations:

- Climate Care
- Department for Energy Security and Net Zero
- Oxford City Council, Oxfordshire County Council and its Districts
- Oxfordshire Greentech
- Oxfordshire Lieutenancy
- Enterprise Oxfordshire
- University of Oxford
- Oxford Brookes University
- Community energy shareholders of Low Carbon Hub

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[5] Carbon Coalition | EAUC
[6] Integrity Council for the Voluntary Carbon Market Core Carbon Principles: The Core Carbon Principles | ICVCM

In general, the design of LCOP significantly benefitted from working through existing organisations and individuals with deep local networks, who were well known and trusted locally, particularly those with links to SMEs, social enterprises and charities. This allowed the project to reach values-led organisations more quickly and effectively and present the funding offer to those most likely to implement low carbon technology projects (in relation to SMEs). Which existing organisations and individuals act in this capacity will vary greatly depending on the geography: Within Oxford, partnerships with Low Carbon Hub, a social enterprise and community energy organisation that installs renewables and reduces energy demand, and their ESOx collaborators, Oxford Brookes EiE, which provides energy assessments, proved the most fruitful. For other areas, relevant networks and organisations may include Business Improvement Districts, Local Enterprise Partnerships, community energy organisations or local climate action groups (amongst others).

Key Sources of information

Information source	Utility
Science Based Targets Initiative – Raising the Bar Report on BVCM	Context on the Beyond Value-Chain Mitigation concept and detail on its application.
We Mean Business Coalition – Accelerating Corporate Climate Finance through Carbon Markets Report	Survey report addressing business perceptions of the voluntary carbon market and carbon crediting.
Verra – Verified Carbon Standard methodologies	Project verification methodologies which are applied in the voluntary carbon market.
KPMG – Regulating Carbon Markets	Outline of the distinction between compliance and voluntary markets as well as relevant frameworks and regulations.
Carbon Credits – Who Certifies Carbon Credits?	Overview of the main carbon certification programs and the processes involved in certification.
Housing Association Charitable Trust (HACT) Retrofit Credits - https://hact.org.uk/retrofit-credits/	Example of a carbon crediting methodology that is applicable to energy efficiency projects

Advice to others

As detailed in the previous chapter (Chapter 5 – Key Learnings), there is a wealth of experience and learnings that have been developed through LCOP. The project team has taken an outward-facing approach to the scheme's ongoing development and iteration, seeking to share learnings, improvements and advice wherever possible with interested parties. The local carbon market space is a nascent but rapidly developing one, and over the course of the pilot the project team became familiar with many other local

authorities developing (or seeking to develop) similar schemes. Based on the experience of LCOP, the project team has shared the following key advice to others:

Start with a clear but flexible model: A key lesson from LCOP is the importance of being clear on your objectives while remaining open to adaptation. While LCOP began as an area-based insetting scheme, the challenges discussed in Chapter 3 triggered the evolution of a local platform where organisations can support local energy efficiency projects. This flexibility enabled the project team to maintain credibility with funders while aligning with best practice in climate governance. For similar projects, this underscores the importance of starting with a clear theory of change but also being prepared to refine their model in response to legal, financial, or stakeholder constraints.

Recognise systemic barriers—even if they can't be solved directly: One of the most valuable outcomes of LCOP has been its ability to surface systemic issues that limit SME engagement in energy efficiency—such as the disproportionate administrative burden it places on small organisations. While LCOP did not directly resolve this challenge, its design helped bring it into clearer focus and initiated important conversations among local stakeholders. Interventions should prioritise feasible actions: improving clarity, reducing friction, and offering meaningful entry points for SMEs within the sphere of influence of local authorities participating in similar projects. Energy assessments and straightforward funding pathways, for example, were particularly effective in drawing organisations into the energy efficiency conversation.

But – take a systems-thinking approach to scheme design: While a single scheme or intervention will not solve all systemic challenges, failing to recognise how a scheme like LCOP links into the wider local and national support infrastructure (in this case, for energy efficiency funding) will undermine its potential and impact. Net zero approaches of all kinds require a systems-approach to succeed, and local carbon markets are no different.

Use partnerships to extend your capacity: LCOP worked because the project combined Oxford City Council's convening power with the technical and outreach expertise of Low Carbon Hub and the Environmental Information Exchange. Partnerships can fill skill and resource gaps, improve credibility and trust with SMEs, and allow for more comprehensive support services.

Design for the user—SMEs need support that fits their reality: LCOP placed strong emphasis on understanding and responding to the day-to-day constraints of SMEs. Many of these businesses operate with limited time, capacity, and financial flexibility - even simplified schemes can feel burdensome. Similar projects should avoid overly complex processes and instead co-design interventions with SMEs, using plain language and ensuring that application processes are light-touch and responsive. Acknowledging that funding routes for carbon projects may be competing against more

traditional grant funding schemes (for example, LCOP may have been competing against Salix's Public Sector Decarbonisation Scheme, for some project developers), SMEs and organisations may prioritise seeking funding from the simplest and most familiar routes. Most SMEs would like to 'fit and forget' retrofit measures so any verification should be time limited and brief.

Recognise where to step in, and where not to: Early in the project design, the LCOP team scoped the strengths of each project partner in order design a system that played best to these. The resulting structure was then continually tested and iterated through the pilot period. A key facet of this was recognising the role of the local authority in a scheme like LCOP, reflecting where LA involvement would improve or speed up a process, and where it may negatively impact or slow one. In the context of local carbon markets, LAs play an important role as a neutral, trusted, non-profit convenor, giving schemes and platforms a recognised brand that installs confidence in stakeholders. LAs are potentially less well placed, however, to handle roles like financial handling between funders and project developers.

7. Conclusion

The Local Carbon Oxford Project (LCOP) represents an important step forward in Oxford's journey toward achieving net-zero as a city by 2040. IUK funding was instrumental in facilitating the exploration and development of a new model for financing SME energy efficiency improvements—one that creates a direct connection between local funders and local projects.

The project encountered a wide range of challenges but the project team's "fail fast" approach allowed for rapid identification and deployment of solutions to these. For example, the project's evolution from an Area-Based Insetting approach to a Beyond Value Chain Mitigation (BVCM) model; this strategic pivot was critical in overcoming challenges related to carbon crediting complexities and prohibitively high methodology approval costs. The shift toward BVCM ultimately created a more accessible and practical pathway for local organisations to fund and implement energy efficiency measures.

By developing a methodology specifically designed for small-scale energy efficiency projects, the scheme filled an overlooked gap in the carbon market landscape. Feedback from trial participants confirmed that LCOP's application forms were shorter and more straightforward than similar equivalent grant applications, demonstrating the project team's success in minimizing the administrative burden for resource-constrained SMEs.

Through engagement with potential funders, it became apparent that there was less appetite for funding SMEs relative to VCSEs. While LCOP set out to address the SME funding gap, there was a clear tension around funders contributing toward the energy efficiency measures of other profit-making businesses. Future messaging aimed towards potential funders may need to underline the challenges around the SME funding gap more clearly.

Perhaps most importantly, LCOP has demonstrated that carbon finance can be tangible and a source of connection within local communities. By redirecting funds that might otherwise have flowed to international carbon markets, broader innovation or corporate social responsibility initiatives back into local projects, the scheme has shown how carbon reduction can be made immediately beneficial to the geographical regions funders have connections to.

The project has also highlighted the critical role that local authorities can play in facilitating climate action. By serving as trusted intermediaries, local governments can bring together diverse stakeholders to create solutions that work for their specific contexts and needs. Furthermore, LCOP's partnership with Low Carbon Hub and collaboration with EiE demonstrates the importance of leveraging existing trusted relationships and expertise to build trust and credibility among prospective project developers and funders.

One of the most promising outcomes from the MVS trials was the feedback that LCOP financial support enabled an organisation to leverage additional internal match funding for energy efficiency improvements. This finding shows promise for the project's potential to maximize fundraising for local decarbonisation efforts beyond the direct funding provided through the scheme. Over the course of the project, £10,186 in match funding has been secured and spent locally. If all the remaining projects on the Central Register were to receive support through LCOP, this could generate additional match funding as well as further third-party funding which could be indirectly unlocked as a result of LCOP contributions.

Looking to the future, the foundations laid by LCOP provide a solid platform for scaling this approach. The potential integration with the upcoming Local Plan (expected implementation c.2027) could provide the policy drivers currently lacking to encourage broader business participation in local carbon reduction initiatives. This represents a significant step toward creating self-sustaining mechanisms for local climate finance that are not solely reliant on continuous grant funding.

By bringing climate finance back to the local level, LCOP has created a model that keeps economic value circulating within the community, supports local businesses,

and delivers tangible benefits beyond just carbon reduction. From the publicly available application frameworks, guidance documents and scoring methodologies to the insights on balancing rigor with accessibility, LCOP offers valuable lessons for similar initiatives within other local authorities nationwide. In this way, the impact of the IUK funding extends beyond the immediate project outcomes, contributing to a broader transformation in how we finance and deliver local climate action.

Local Carbon Oxford Project: Final Report

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