



Department for
Energy Security
& Net Zero

Evaluation of the BASEE Programme

Evaluation Report

Research Paper Number 2023/035

April 2024



© Crown copyright 2024

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gov.uk.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

Contents

Executive summary	4
1. Introduction	11
2. Have the BASEE pilot projects been effective in encouraging SMEs to engage with their offers?	20
3. Have the BASEE pilot projects been effective in encouraging SMEs to take up energy efficiency projects and implement energy efficiency measures?	26
4. Have the BASEE project business models demonstrated they will stimulate the SME energy efficiency supply chain?	33
5. Have the BASEE projects demonstrated that they will encourage lenders to provide finance for SME energy efficiency activity?	36
6. What energy and carbon impact have the projects had (or can be expected to have in future) on reducing energy consumption among SMEs?	39
7. What was the influence of BASEE on the design and delivery of the funded pilots?	41
8. Learnings - how can BASEE aims be further supported in future?	45
Appendix A: BASEE pilot summaries	48
Appendix B: Matrix of pilots addressing time, resource and expertise barriers	72

Executive summary

The Boosting Access for SMEs to Energy Efficiency (BASEE) competition sought to address barriers to SMEs (Small and Medium-sized Enterprises) taking energy efficiency action. Between February 2020 and February 2022, eight projects were funded to develop and demonstrate solutions, piloting a range of approaches to engaging and supporting SMEs to progress to action. These ranged from light-touch online tools signposting SMEs to further support to progress action, through to more intensive ‘one-stop shop’ models, providing site audits, an approved supply chain, and financial support.

Despite significant challenges, in particular the overlapping of pilot delivery with COVID-19 restrictions, around 400 SMEs were engaged across the pilots. As of February 2022, the pilots were not aware of significant energy efficiency actions having been taken,¹ but surveys of a limited pool of SME customers indicated that on several pilots, a small number of works were being taken or planned, and attributed to the pilot support. The evaluation of the programme concluded before the significant rises in energy costs, which may also have led a number of SMEs to revisit the business case for energy efficiency action.

Whilst the COVID-19 context may have somewhat distorted SME focus and appetite to invest in energy efficiency, the pilots generated substantial learnings on the known barriers to SME energy efficiency action – including effective approaches to engaging SMEs, building trust in measure recommendations and paybacks, as well as engaging the installation supply chain and lenders in this market. These learnings could inform the direction and design of future programmes and support to encourage SME energy efficiency.

Introduction to BASEE and the evaluation

BASEE was designed to investigate solutions to address barriers to SME energy efficiency action. It was part of The Department for Energy Security and Net Zero’s (the Department), formerly The Department for Business, Energy and Industrial Strategy (BEIS), broader 2016-21 £505m Energy Innovation Programme², which aimed to accelerate the commercialisation of technologies. Phase 1 of the BASEE programme launched in August 2019; eight teams received full Phase 2 funding to deliver their pilot projects in February 2020, with all complete by February 2022.

The Department committed to deliver a process, impact, and economic evaluation of the Boosting Access for SMEs³ to Energy Efficiency (BASEE) competition, assessing outcomes and providing understanding to inform future programmes and policy. The evaluation comprised a mixed method of interviews and review of evidence provided by the funded pilots. This report represents the synthesis of evaluation activity across the competition period,

¹ Lighter-touch pilots had not established robust approaches to monitoring SME customer action following their engagement with the pilot services.

² www.gov.uk/guidance/energy-innovation

³ Small and Medium-sized Enterprises.

assessing evidence against the main objectives of the programme. The evaluation was delivered by a consortium led by Winning Moves Ltd. Analysis of pilot and programme impacts was supported by CAG Consultants, with verification of pilot energy and carbon impacts provided by Verco, and a cost-benefit analysis conducted by Hatch. The evaluation started in July 2020 and final analysis took place in September 2022.

Context: the rationale for BASEE

SMEs can make a significant contribution to UK targets on energy consumption and carbon emissions reductions. The £6m Boosting Access for SMEs to Energy Efficiency (BASEE) competition was designed to investigate solutions to address barriers to SME energy efficiency action. These included:

- For SMEs – the time, money and knowledge required to investigate and implement energy efficiency; and coupled with this, a lack of trust in the predicted energy savings that such action would bring.
- For the installation supply chain and finance providers – the perceived high risk and transaction costs of working with SME customers on energy efficiency.

BASEE funded eight pilot projects (hereafter referred to as ‘pilots’) to develop and deliver innovative solutions to these barriers; the pilots comprised a range of service offers targeted at a range of sectors and geographical areas.

It was not intended that each of the funded solutions should address all the barriers identified by the Department, or that the pilots should achieve large customer numbers and commercial readiness within the BASEE funding period. However, it was expected that the pilots would be able to achieve sufficient take-up and engagement (with SMEs, the installation supply chain and finance providers) to evidence that their solution addresses the competition aims.

Context: competition timing and challenges

Following initial feasibility testing (Phase 1), the start of the main phase (Phase 2) of the BASEE competition coincided with the first wave of the COVID-19 pandemic and associated restrictions in the UK. All pilots were granted extensions to delivery timetables of between three and nine months. However, key phases of pilot activity (often with sectors particularly adversely affected by the pandemic) overlapped almost completely with the most severe waves of the pandemic. This was a critical factor in competition outcomes; the key challenges for the BASEE-funded pilots in particular included:

- Reaching SMEs - some were closed for long periods, and key individuals / decision-makers were hard to reach (especially if furloughed or working from home).
- Engaging SMEs – pilot teams reported that with many businesses focused on existential challenges, energy efficiency was seen by many as a peripheral concern, especially when the pandemic was leading to low building occupancy and energy consumption

anyway. In addition, pilots struggled to conduct (potentially more impactful) in-person promotional activities.

- Generating impactful insight and recommendations - atypical SME energy use and building occupancy levels created challenges for data analysis, generating consumption profiles, and recommending energy efficiency actions. Challenges with obtaining usable data were exacerbated by the smart meter⁴ rollout in commercial premises having not reached the majority of participants yet, as well as obtaining permissions from utilities to access SME consumption data.⁵
- Delivering critical parts of the customer journey, in particular on-site surveys and indoor installation works (though such activity was permitted throughout).
- Managing risk aversion – pilot teams also noted that it was challenging to encourage SMEs to invest in substantial energy efficiency action (with sometimes long payback periods), in a very uncertain economic climate, where they may not have expected to occupy a building in the long term. And linked to this, encouraging SMEs to explore third party finance in an uncertain climate where many would either be heavily in debt or strongly averse to getting into debt.
- Getting traction - the pilots' offers of support or finance were competing for SME attention and take up with local and national grant support⁶ to businesses.

Lower-than-anticipated SME engagement had a commensurate dampening effect on supply chain and lender interest; demonstrating a strong pipeline of installation projects was crucial to piquing their interest.

Another important observation on BASEE timing was that the competition closed just before the sharp increases in UK electricity and gas prices, a change which may have otherwise had a pronounced effect on SME interest in, and willingness to take action on, energy efficiency⁷.

Addressing barriers to SME engagement and action

Pilots promoted their platforms through a variety of organisations, messages⁸, and methods⁹. Some offered significant incentives for engaging, and all offered their platforms free of charge during the competition period.

The pilot offers were demonstrably not sufficiently compelling for large numbers of SMEs. Levels of SME engagement with, and use of, the platforms were lower than had been anticipated by the pilots at the outset of Phase 2. Through intermediaries¹⁰, some pilots were

⁴ Upon which optimal efficiency, accuracy and depth of data relied for most platforms.

⁵ It is useful that projects re-emphasised / highlighted issues such as the coverage of smart meter rollout at the time of data collection, and slow processing of LOAs; yet it could be argued that the project teams could have foreseen such issues and priced them into the design and delivery of their projects.

⁶ Related to COVID-19, but also other sustainability policies and programmes.

⁷ Whilst the competition has now closed, the Department will continue to liaise with the pilots to understand ongoing outcomes.

⁸ Cost savings, sustainability / net zero, and staff / customer comfort being the main ones.

⁹ Including social media, direct mailshots, and webinars.

¹⁰ Including utilities, local government, and trade associations.

promoted to large numbers (thousands) of SMEs, yet none could report progressing more than 25 SMEs through to considering action. This might suggest the importance of depth of engagement as opposed to more generic targeting of larger numbers, though most pilots achieved broadly similar numbers of fully engaged SMEs.

Amongst the SMEs that did engage with pilots, there was some evidence of sustainability actions, albeit mostly limited to measures that BASEE was not directly seeking to overcome the obstacles to e.g. behavioural and / or renewable energy measures.

Addressing barriers to supply chain and finance provider engagement

Some pilots integrated installation and finance organisations¹¹ (or organisations with a pre-existing installation supply chain) to their intended customer journey. Users were directed to these organisations or directly approached by them. Other pilots opted for light-touch signposting of SME customers to generic lists of installers and funding opportunities.

Pilots that took the latter approach acknowledged that their decision was made with reputational and liability issues in mind. They also considered that coordination of installations and finance agreements within the pilot could be too resource-intensive on a commercial scale.

Installers and finance providers interviewed for the evaluation agreed that if the pilots could demonstrate and share a steady pipeline of work, there would be motivation to engage more closely with their offers. This created a catch-22 - attracting large numbers of SMEs is reliant on being able to offer reliable installation and finance options; yet the firms offering these options are unwilling to engage until they see large numbers of SME customers.

Most interviewed supply chain representatives and lenders reported that the data captured by the pilot platforms was useful and could reduce up-front administration for them. However, they also reported that they would likely still need to conduct their own site surveys, which means no significant reduction in transaction costs. Furthermore, pilots reported feedback from many installers that order books were full, and there was no particular motivation for these firms to explore projects arising from the pilots.

Ultimately, there was limited ability to compare and gain insights into the different supply chain and lender models being used by the pilots because limited numbers of SMEs progressed to the stage of considering action. Amongst those that did consider action, appetite for external finance (outside of grants) was very limited. Overall, the evaluation found many instances of pilot models theoretically addressing key barriers to supply chain and lender engagement. However, the evaluation did not find strong evidence that the BASEE competition has (a) found a proven model for progressing large numbers of SMEs from recommendations to action; (b) overcome widespread SME reticence around taking up external finance; (c) overcome supply

¹¹ Some project consortia included installer and / or finance firms.

chain and finance provider views that the SME market is relatively high cost / risk and low reward¹².

One hypothesis at the outset of the competition was that ‘aggregation’ (the bundling of multiple energy efficiency actions, across multiple SMEs, into one overarching project) could be an effective way of reducing per SME transaction costs for installers and lenders. And could simultaneously provide sufficiently large schemes to capture the interest of these organisations. The funded pilots did not generate the SME customer or project numbers to properly test this hypothesis. Regardless, many supply chain interviewees, particularly finance providers, were sceptical about aggregation. They stated that it would be impractical, would not produce many efficiencies for them, and may even lead to increased costs and challenges, such as trying to deliver disparate projects in similar timescales.

Pilots may go on to deliver impacts, but may not focus on SMEs, or solely energy efficiency measures.

Whilst the degree to which individual pilots sought to address individual barriers varied, across the eight funded BASEE projects, there were *theoretical* solutions to almost all the barriers cited in the BASEE competition document¹³. There was also limited evidence of specific pilots supporting SME customers to identify potential actions, and start to implement / plan those. However, overall the levels of SME engagement, and energy efficiency action, seen during the programme period mean that the ability of these solutions to overcome the known barriers, and deliver significant growth in implementation of energy efficiency action, was, at the time of final evaluation in February 2022, unproven.

All pilots predicted the take up¹⁴ and impact of their platforms to grow in the next ten years. The pilots faced an unprecedented set of challenges during the competition period. Relaxation of COVID-19 restrictions, the ongoing drive for net zero, and recent energy price rises, could provide the potential for significant levels of SME energy efficiency action in future years. It should be noted that several pilots were able to cite commercialisation opportunities and contracts that have progressed since BASEE closed.

Furthermore, any impact might not be entirely concentrated on the SMEs and measures BASEE sought to affect. Most pilots expected to open up their platforms to a wider market following the end of the competition period, taking the view that larger and more energy intensive businesses (with higher consumption and costs) would be a more receptive audience. A portion of the anticipated action will be for low-cost energy efficiency and renewable energy actions, which BASEE was not looking to address.

¹² Many of the installers and finance providers involved in the funded projects already work with SMEs to some degree.

¹³ Though only one project sought to cater for landlords and designed their project around aggregation.

¹⁴ It should be noted that whilst none of the pilots had demonstrated widespread SME willingness to pay directly to use the platforms, most envisaged that their solution would be white labelled / form part of a wider offer from an intermediary (e.g. utilities).

The impact of BASEE support

Participants and wider stakeholders named several ways that the programme design was very supportive of their pilots and the intended objectives. Their attribution of pilot existence and outcomes to the BASEE programme was strong. In assessing the impact of the pilot phase and future pilot prospects, it should be noted that, at the time of final evaluation, all eight funded pilots expected to continue beyond the end of BASEE funding, and all but one has plans for commercialisation.

Suggestions for driving SME energy efficiency action in the future

Participants praised the design and delivery of the BASEE competition, in particular the two-phase approach (which helped them to further develop and refine their approaches), the level of monitoring (not too onerous) and the general support, flexibility and openness shown by the programme management team and dedicated monitoring officers. However, the evaluation did identify issues with pilot application criteria, and slow sign-off on some decisions. Suggestions to enhance any future, similar competition include:

- Extension of the Phase 1 research and design stage, which ran for 4 months.
- Greater emphasis in competition documents and application evaluation criteria on innovation in solutions.
- Greater clarity on intended outcomes, including a clearer emphasis on achieving SME action as well as initial interest.
- Sufficient resource at a senior / directorial level within the Department, to improve programme steer and management.
- Earlier opportunities for participant pilots to meet, exchange ideas and collaborate.

Competition participants and wider stakeholders were also asked how Government should look to further support the objectives that underpinned BASEE. Their responses included:

- Greater and more sustained funding for SME energy efficiency measure installation.
- Interviewees in 2021 expressed that it would be challenging to achieve mass SME energy efficiency action without macro-level change, particularly utility price rises.
- Rates relief and green lease agreements were cited as potential incentives; one lender sought for Government to underwrite / guarantee robust energy efficiency installation business cases to give SMEs more confidence to take action.
- In terms of regulation, several stakeholders expressed that the new Minimum Energy Efficiency Standards (MEES) for commercial premises would be an important driver of action, providing they are accompanied with clear penalties and enforcement.

- All pilots called for the acceleration of the smart meter rollout to commercial premises, as well as changes to enable more efficient access to energy data where the business has granted permission.

1. Introduction

1.1. BASEE

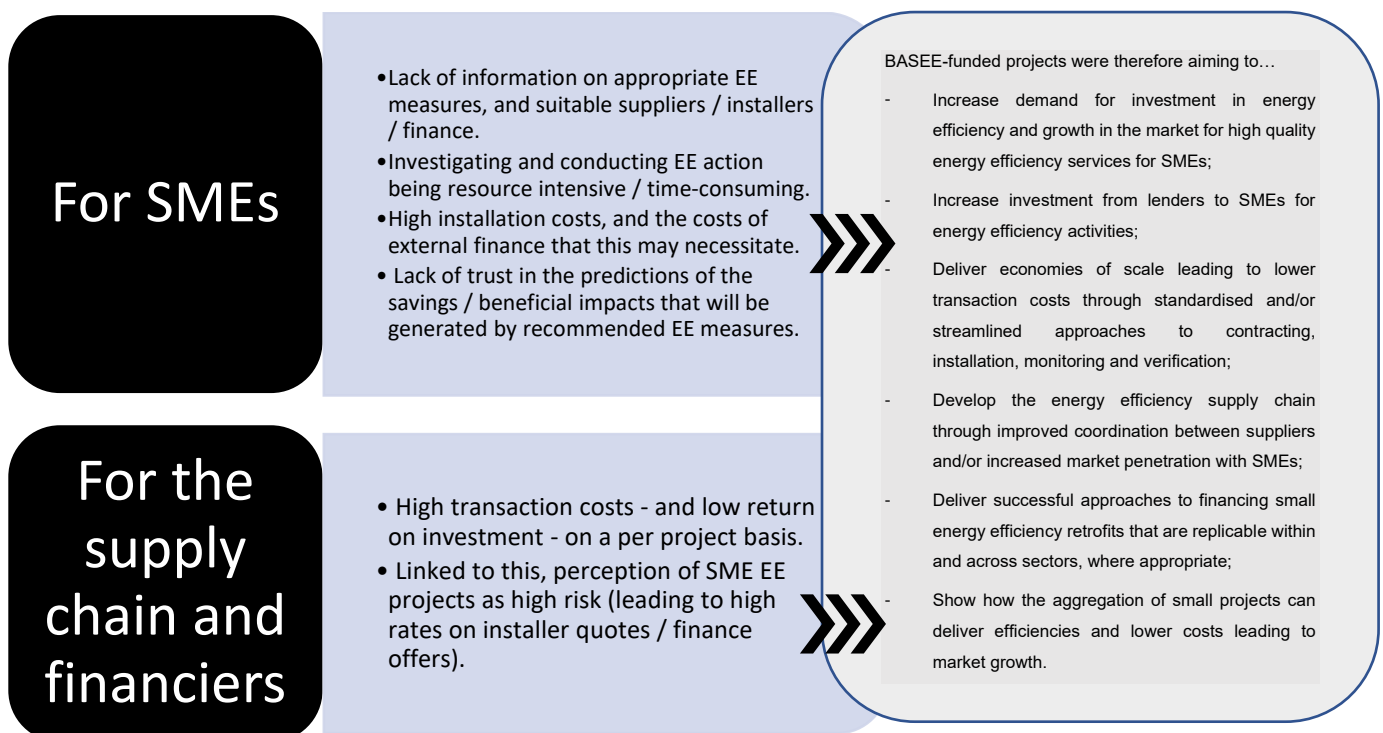
Context and Programme Objectives

The £6m Boosting Access for SMEs to Energy Efficiency (BASEE) competition was developed as part of the Government’s proposals to meet the ambition, set out in the Clean Growth Strategy, to support businesses to improve their energy efficiency by at least 20% by 2030.

SMEs can make a significant contribution to this target. A dynamic and forward-looking energy services market is likely to be critical to delivering energy efficiency projects for SMEs. The BASEE competition was funded through the Department for Energy Security and Net Zero’s (“the Department”) £505 million Energy Innovation Programme (EIP), which ran from 2015 to 2021 and provided funding towards the commercialisation of innovative clean energy technologies and processes.

Through experiences of delivering programmes, government reports on energy efficiency market, and extensive literature reviews, the Department identified a range of barriers that constrain or prevent SME involvement in energy efficiency. The BASEE competition was designed to investigate solutions to address and manage these barriers. Figure 1 summarises the barriers, and therefore the expected beneficial impacts of the BASEE-funded projects,

Figure 1: Barriers the BASEE programme was designed to address¹⁵

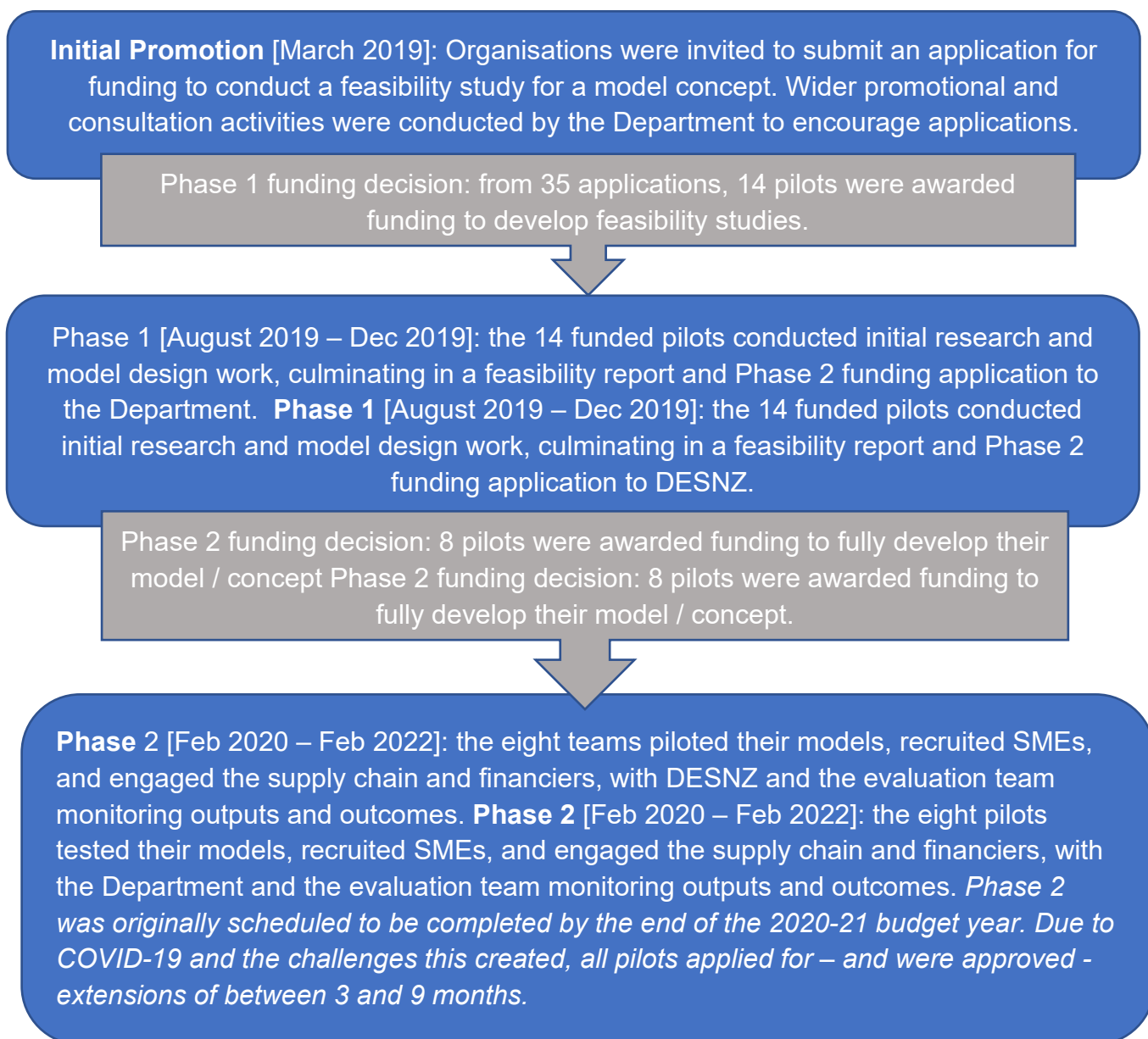


¹⁵ Energy efficiency has been abbreviated to 'EE'.

The expectation was that pilots funded through the competition would develop and deliver innovative solutions that encourage the take up of energy efficiency measures. This would be achieved by introducing simplified and harmonised solutions more tailored to SMEs, and through reducing transaction costs through economies of scale. In particular, the programme sought solutions to encourage SMEs to invest in more impactful (but generally more costly and complex) energy efficiency measures. The Theory of Change for the BASEE competition is provided in the technical methods annex separate to this report.

The BASEE competition process is illustrated in Figure 2 below:

Figure 2: Overview of BASEE competition



Summary of Funded Pilot Projects

Table 1 provides a summary of the eight pilots that received Phase 2 funding to further develop and trial the models¹⁶. It should be noted that it was not expected that each project would explore solutions to address every barrier underpinning the creation of BASEE. The expectation was that solutions would be explored across the portfolio of pilots. More information on the funded projects can be found in Appendix A. A matrix of how pilots aimed to address time, resources and expertise barriers can be found in Appendix B.

Table 1: Summary of the eight pilots funded in BASEE Phase 2

Project lead and name	Main partners	Target groups	Overview of project
Arbnco (DEEP platform)	Centrica; Capitas Finance; Regional partners (e.g. Scottish Enterprise)	All SMEs with smart meters	Digital Energy Efficiency Platform (DEEP) was an online platform that undertook an online analysis of SME energy use, informed by user smart meter and other data, from which it generated a bespoke list of energy efficiency measures, together with costs and links to a select list of suppliers and finance options.
BRE (REZEE platform)	No external partnerships	Primarily SME care homes	REZEE was a website featuring an integrated energy modelling tool to assist users to identify opportunities to improve the energy efficiency of their buildings. The site also provided advice on how to procure energy efficiency services and directed users to potential suppliers and sources of finance.
Considerate Hoteliers (extension to fluttr app)	Funding Xchange; Retrofit suppliers; Utility Data	Hospitality SMEs with smart meters	An extension of the existing 'fluttr' app, to include an online 'marketplace' for energy efficiency investments. This facilitated engagement between SMEs, equipment suppliers, installers, and sources of finance.
Element Energy (E-CAT platform)	Drax group (Opus Energy); Octopus Energy	All SMEs with smart meters	Expansion of the functionality of an existing platform (the Energy Comparison and Advice Tool) to tailor it for individual SMEs. E-CAT used smart meter data and business characteristics to provide information on energy efficiency investments tailored to the SME's context.
Energy Pro (ESCO-in-a-box service)	Low Carbon Hub; Oxford Brookes; Hitachi; DLL Local Enterprise Partnerships (LEPs)	SMEs with sizeable energy spend	ESCO-in-a-box was an 'operating system' for energy services (effectively a toolkit) incorporating all the systems, processes and contracts needed to deliver efficiency projects to SMEs, based on internationally established good practice. The tool was piloted in Oxfordshire by the Low Carbon Hub, who established Energy Solutions Oxfordshire (ESOx) to test the model.

¹⁶ Detailed descriptions of the eight pilots receiving Phase 2 funding can be found at www.gov.uk/government/publications/boosting-access-for-smes-to-energy-efficiency-basee-competition-winning-projects

Project lead and name	Main partners	Target groups	Overview of project
Hoare Lea (bundled technologies for the online marketplace)	Commercial landlords; Equipment manufacturers; Specialist suppliers	SMEs with sizeable energy spend (office and warehouse sectors).	Creating product bundles for both landlords and tenants, combining different interventions into a single investable package to improve the overall cost effectiveness of energy efficiency improved. It also aimed to streamline the procurement and investment process, quantifying reductions in energy use pre and post intervention, and supporting users to develop clear pathways to net zero.
Joule Assets (Smarter Choices service)	VRM (no longer in business); Future Climate; Oxford Innovation; Energy assessors	SMEs with sizeable energy spend (primarily manufacturing sector)	The Smarter Choices service simplified and secured access to quality-assured building energy efficiency solutions for SMEs through the provision of an end-to-end energy efficiency service - assessment through to financing, installation and in-use performance monitoring. The project also sought to improve access to finance for SMEs by aggregating opportunities and presenting a ready-made portfolio of investment opportunities to lenders.
Qbots (Q-Energy platform)	Bryt Energy; Leapfrog Finance; Ask Inclusive Finance; Energy Systems Catapult	SMEs with (or willing to install) smart meters.	Q-Energy was a smart energy platform building on an existing energy switching service. Qbots developed this service to integrate an energy efficiency advice function, as well as facilitating engagement between SMEs, installers and sources of finance.

1.2. Programme evaluation

Objectives

Alongside programme delivery, the Department committed to deliver an interim and final evaluation of the BASEE programme, incorporating process, impact and economic evaluation. Through assessing programme delivery and outcomes, the evaluation sought to provide understanding to enhance the design and delivery of concurrent and future programmes.

This report details the findings from a process and impact evaluation of the BASEE programme to provide both an assessment of the extent to which BASEE achieved its intended outcomes and why. The six principal Evaluation Questions (EQs) the evaluation aimed to address are listed below; the detailed sub-questions are provided in the separate technical annex to this report.

1. Have the BASEE pilot projects been effective in encouraging SMEs to take up energy efficiency projects and implement energy efficiency measures?
2. Have the BASEE project business models demonstrated they will stimulate the supply chain for energy efficiency products and services aimed at SMEs?

3. Have the BASEE projects demonstrated that they will encourage lenders to provide finance for SME energy efficiency activity?
4. What impact have the projects had (or can be expected to have in future) on reducing energy consumption among SMEs?
5. To what extent have the projects delivered on the attributes sought by the BASEE Competition, and why/why not?
6. What insights can be gained to improve the design and delivery processes of the BASEE programme, and other similar programmes funded by the Department for Energy Security and Net Zero?

Rather than providing a qualitative comparison of the performance and outcomes for each pilot, the purpose of the evaluation was to assess how the whole portfolio of BASEE collectively answered the objectives.

Methodology

The report draws on process, impact, and economic evaluation research conducted throughout 2019-22. The sources are summarised in Table 2a and 2b below, with more details provided in the technical annex separate to this report:

Table 2a: Summary of the evaluation data sources – Secondary Data

Secondary data review

Data source	Purpose of review
Review of outputs generated by the pilots throughout the BASEE programme, in particular the final reports submitted to the Department	Exploring the progression of pilots (including challenges encountered), evidencing outcomes, and, for the final reports in particular, providing an overview across the EQs.
Programme documentation such as the competition document, ongoing monitoring, and technical reviews of pilot outputs.	Insights into the BASEE programme design (and rationale for that), its potential effects on outcomes, and further insight on the progression and delivery of pilots.

Table 2b: Summary of the evaluation data sources – Primary Data

Primary data collection

Data source	Purpose of collection
Depth interviews, at several stages of the programme / pilot delivery, with representatives of the lead organisation(s) on each of the eight Phase 2-funded pilots.	Exploring experiences of delivering the pilot (particularly challenges and successes), experiences of the BASEE process (applications, monitoring and reporting), outcomes from the project and attribution of these to BASEE, and overall views on future policy to encourage SME energy efficiency action.
Depth interviews at several stages with nominated wider stakeholders on the eight pilots - supply chain partners, lender partners, and other organisations involved in the design and / or delivery of the pilot.	Exploring views and experiences of the pilot in which they were involved (particularly perceptions of key successes and challenges), the extent to which the pilot is achieving the outcomes relevant to the respondent's sector (especially if supply chain or lender), and overall views on future policy to encourage SME energy efficiency action.
Interviews with a selection of the organisations that applied for BASEE funding but were unsuccessful at either Phase 1 or Phase 2 application stage.	Exploring experiences of the BASEE application and – where relevant - Phase 1 process, as well as progression of comparable activity outside of BASEE Phase 2.
Interviews with representatives of the BASEE programme team (Department for Energy Security and Net Zero officials, external monitoring officers, and technical reviewers).	Exploring views on the design, delivery and effectiveness of BASEE, views on the achievement of the funded pilots against the intended outcomes, and views on the direction / focus of future policy.
Throughout the evaluation, several workshops with the pilot, and programme, teams.	Exploring specific topics felt to be relevant / pertinent to the pilots e.g. effective (and less effective) approaches to SME engagement.
Attendance at monthly BASEE monitoring officer meetings.	Providing updates on pilot progress, and challenges on both pilot delivery and programme management.
Attending presentations from the pilot teams on their solutions / insights at various stages of the competition.	Providing insights on the way in which solutions were expected to address the competition objectives.
Online / email surveys – administered by the eight funded pilots – of participant SMEs.	Exploring SME experiences of participating in / interacting with the pilots, subsequent action, and attribution of that.

Data from programme and pilot documentation, and interview responses, were synthesised to identify key themes and findings against the competition EQs. In particular views on delivery of the key stages of the BASEE programme, pilot successes and challenges, and achievement against intended outcomes. Specific analysis fed into an assessment of impact¹⁷ and attribution:

¹⁷ As required by EQ4, despite the limitations to this outlined in the section below.

- Modelling of energy and carbon outcomes from pilots to (a) verify the claimed energy savings and carbon emission reductions from each of the pilots; (b) verify the cumulative energy savings and GHG emission reductions of each pilot over the next five years and up to 2030.
- Drawing upon that modelled data, as well as wider evidence, cost benefit analysis to assess the value for the money of the programme, understanding the assumptions and sensitivities associated with estimates of costs and benefits.
- Qualitative Comparative Analysis (QCA) to analyse the causal conditions observed in conjunction with 'success outcomes' across the Phase 2 pilots.
- Process Tracing to test competing hypotheses about the extent to which the BASEE pilots generated additional learning on SME energy efficiency that would not have existed without the programme.

Limitations

Timing

The delivery of the BASEE pilots, including the evaluation, occurred during the first two years of the COVID-19 pandemic and associated restrictions. As a result, project experiences of SME priorities and engagement were atypical.

Data collection on the evaluation ended before the rise in UK energy prices. At the time of writing, there is no robust evidence on the effects of the price rises on business' (particularly SME) attitudes to energy efficiency measures. However, it is reasonable to assume that these factors could have substantial impacts on SME responses to BASEE projects.

Project progress

By far the main challenge, described throughout this report, has been the progress of the pilots within the BASEE competition (and therefore evaluation) period. This has been more limited than anticipated, in terms of both the number of SMEs engaged, and the number of confirmed energy efficiency installations. The consequent challenges for the evaluation were as follows:

- Limited realisation of many of the key outcomes and impacts that the evaluation was looking to measure, including SME action, supply chain engagement, and take up of finance. Whilst the Department had not necessarily expected large numbers of energy efficiency measure installations to occur within the competition period, achieved levels were below expectations. A lack of quantified, or even anecdotal, evidence on many outcomes made drawing conclusions about the effectiveness of pilot solutions (and BASEE overall) more challenging.
- The limited numbers of SMEs progressing to serious consideration of significant action resulted in key components of pilot processes not being explored. For example, SME engagement with supply chain firms and finance providers involved in the pilots, or quality assurance (QA) and realisation of actual versus predicted impacts.

- Acknowledged by many pilots themselves, the numbers of SMEs engaged across the programme period were not sufficiently large to provide much insight into differences across SME sub-groups: *“Our samples are too small to comment on profile differences.”*
- Difficulties with disaggregating the effects of pilot decisions and BASEE design and delivery on programme outcomes from the effects of COVID-19.

Feedback from SMEs

Feedback from participant SMEs was crucial in understanding SME experiences and outcomes from interacting with the pilots. Rather than surveying SME customers directly, the evaluation team shared a small batch of questions (focused on action, impacts and attribution) with the pilot teams. These questions could be integrated into surveys of SME participants that the pilots would administer themselves. Pilots would then share anonymised datasets of responses with the evaluation team. There were several potential advantages to this approach – reduced respondent burden / risks of duplicated effort, reduced administration around sharing contacts, and potentially boosted response rates.

Despite these advantages, it proved difficult to secure insights from this target group – possibly because of the various challenges previously discussed. Albeit the population approached for survey was not large anyway, response rates to the pilots’ SME surveys tended to be low¹⁸; no pilot SME survey achieved more than 15 responses, with two not achieving any. The small sample limited the insights and conclusions that could be drawn from responses.

Recall

Recall is a common challenge when evaluating multi-phase, multi-year programme. During this evaluation, interviews sometimes asked respondents about details of the BASEE competition and pilot delivery, such as Phase 1 applications, which occurred over a year before. Some respondents noted that certain details or experiences of the processes have been forgotten.

Report Structure

The first part of the report assesses the extent to which BASEE pilots (and so the programme overall) addressed the key barriers to SME energy efficiency outlined above.

[Sections 2 – 5](#) focus in turn on engaging SMEs in energy efficiency, encouraging SMEs to take energy efficiency action, overcoming supply chain barriers to involvement, and overcoming lender / finance provider barriers.

[Section 6](#) discusses the feasibility of calculating current and future carbon and energy impacts from the data available.

[Section 7](#) discusses the effects (both positive and detrimental) of the BASEE programme upon these outcomes.

¹⁸ And likely with overrepresentation of the more enthused SMEs that had engaged more fully with the projects.

[Section 8](#) presents insights from the evaluation as to how the programme goals could be further supported in future, as well as high level suggestions on programme design and delivery.

2. Have the BASEE pilot projects been effective in encouraging SMEs to engage with their offers?

Establishing successful ways to engage SMEs in energy efficiency was a key objective of BASEE in its own right, but is also a prerequisite for most other objectives, such as progression to implementing measures and engaging the supply chain and lenders (through being able to demonstrate a pipeline of interested customers). This chapter provides an overview of the pilots' approaches, observed successes and challenges, and the reasons for these.

2.1. Levels of engagement

The approximate number of SMEs approached and engaged by the pilots can be found in Table 3.

Table 3: Approximate SME numbers approached and engaged with pilot projects during the BASEE competition.

Pilot	Approach to reaching SMEs (and numbers approached where known to evaluators)	Numbers engaging
DEEP	At least 8,000 SMEs reached via Centrica SME customers	78
REZEE	Over 9,000 care homes targeted via direct marketing	<5 fully testing the service
fluttr	Marketing direct and via partners.	15
E-CAT	SMEs recruited via energy suppliers.	130
ESCO-in-a-box	SMEs reached via digital media, local networks / partners, and paid advertising.	100
Zero carbon pathways	Four sites, with an estimated 70 SMEs, reached via landlords and business park owners	18
QEnergy	Over 3000 SMEs approached via partners.	37
Smarter Choices	Via partners including a network of ESCOs.	25

2.2. Common themes and approaches

Detail on the specific approaches taken by each pilot to engage SMEs is provided in Appendix A. Because of the exploratory nature of the programme, and the different types of projects being trialled, project aims were agreed within each project's initial proposal and, therefore, the depth and type of engagement depended on the type of project. Due to the challenges encountered, most notably COVID-19, SME engagement plans and expectations fluctuated somewhat throughout delivery. This means that applying a benchmark against which pilot performance in this area could be assessed was challenging.

There was necessarily some variance between the pilots' approaches to SME engagement, in terms of the audiences targeted, and the methods and messages used. This was in part dictated by the sectors that pilots were looking to engage¹⁹, and the numbers they sought.

Another factor influencing approaches to SME engagement, was the pilots' ambitions and aims within the BASEE competition period. Some pilots sought to test the 'mass appeal' of their service to understand potential uptake post-BASEE. Others viewed the BASEE funding period as more of an opportunity to test and refine their service with a small number of users. The latter view, where taken, did limit evidence that the pilot could generate a strong level of interest, which was one of the BASEE programme objectives.

However, there were several common themes across approaches:

- **A preference for third party promotion** - marketing the pilot offer via intermediaries / third parties known to SMEs was felt to be more effective than direct approaches from the organisations leading the pilots. All pilots undertook a degree of direct marketing, including social media posts, blogs, mailshots, telemarketing, and webinars / events. However, they generally reported a better response when a pilot partner or wider stakeholder promoted the service on their behalf. Several pilots commented that previous experiences on innovation programmes had shown direct marketing wouldn't work. These third-party organisations (which included utilities, trade bodies and regional organisations such as Local Enterprise Partnerships (LEPs) and Growth Hubs) tended to be better recognised than the pilot lead organisations; they were often 'brand' known to (and trusted by²⁰) SMEs, and had an existing SME customer base. Some partners were able to filter their customer bases to target specific groups amongst whom take up might be higher, such as focusing on SME customers with the appropriate smart meter set up.
- **Appealing to motivations beyond financial benefits** - all pilots reported the potential for cost savings as the most common motivation for SMEs to engage, and this was endorsed by the available SME survey responses; it was a key motivation for three

¹⁹ For example, the comfort benefits of energy efficiency might resonate more for some.

²⁰ Though the degree of SME good will towards / trust in their energy supplier varies, and is likely to be negatively impacted by the energy price rises.

quarters of those asked about motivations for engaging. However, it was also agreed that the possible wider benefits were important to include²¹. These included:

- Achieving net zero, whether for sustainability or reputational reasons. Several pilots reported the increasing prominence of the low carbon / Net Zero agenda and, linked to this, requirements for carbon reduction plan which require the identification and achievement of carbon savings for SMEs. Several pilots also reported anecdotal evidence of more SMEs needing / looking to show their green credentials to business customers and consumers).
- Comfort
- Business resilience.

One pilot team also stressed that mention of 'energy' should be minimised, as they found SMEs associated this with cold calling to sell tariffs.

- **The need to actively address reservations** - many pilots felt it was important for marketing to address, and provide reassurances on, potential reservations SMEs might have, such as concerns about time and resource needed for the platforms. Several pilots also commented that it was useful to highlight being part of a government scheme.
- **Varied knowledge requirements from SMEs** - Although most elements of pilot offers were of interest to at least some SMEs, it seemed most common for SMEs to value (a) monitoring and auditing to establish appropriate energy efficiency measures they could implement; (b) benefits and costs information to build a business case for action; (c) benchmarking energy consumption against SMEs in their sector.
- **Few trigger points identified** - there was little evidence on the use and effectiveness of trigger points to improve SME engagement (aside from a pilot noting that SMEs were more open to discussions when they were due to renew or switch energy contracts).
- **Challenges engaging smaller SMEs** - most pilots reported that it was particularly challenging to engage businesses at the smaller end of the SME scale, who often have simple energy uses, relatively low energy costs (both in value and a percentage of business costs), and more constrained resources. Where pilots felt able to estimate, they reported that businesses spending less than £10,000 per annum (and/or for whom energy comprised less than 10% of costs) were difficult to engage.
- **Over-representation of the already committed** - most pilots acknowledged that the SMEs most readily engaging with their offers were disproportionately those with, as one pilot team described, "*a pre-existing desire to engage with sustainability*". Therefore, the way pilot offers were received by these early adopter SMEs (including willingness to engage at all) may well be atypical of the wider SME population.

²¹ One pilot's main message was 'save energy, save money', with more detailed marketing highlighting that energy efficiency action could improve occupant health and well-being. Another pilot mentioned a number of the SMEs they engaged with being motivated by staying ahead of the competition / having most up to date technology, workforce productivity and safety.

2.3. Challenges to SME engagement

As illustrated above in Table 3, there was limited success in engaging SMEs with pilot products, in comparison to the number of SMEs approached. Table 3 shows how some pilots, such as Considerate, deliberately opted for limited engagement and weren't aspiring to large customer numbers. Despite this, the consensus amongst both pilot leads and wider partners and stakeholders was that engaging SMEs had been much harder than anticipated, despite offering incentives to engage and providing access for free. Levels of SME engagement were significantly lower than they had hoped to enable a robust pilot of their service.

All pilots reported several substantial challenges to successful engagement of SMEs. These are summarised in this section; challenges experienced by individual pilots are described in Appendix A.

The dampening effect of COVID-19 on SME enthusiasm for engaging in energy efficiency is well understood, and this report will not reproduce exhaustive detail on the topic. However, it was cited by all pilots as the principal challenge to engagement. To summarise the key COVID-19-related issues encountered during the BASEE funding period:

- Reaching SMEs was challenging: many businesses were closed either temporarily or permanently. Additionally, SMEs were sometimes operating away from their typical premises.
- Energy efficiency was not a high priority for most SMEs, as their focus was on survival and business-critical areas²². SMEs in sectors seeing sudden growth over the pandemic (such as logistics) were reportedly too busy to properly consider energy efficiency opportunities, or were nervous about the disruption it may cause. In addition, many interested SMEs dropped out of trials because of lack of time and resource. For example, on one pilot, all but one of the six SMEs that had signed up for in depth testing pre-pandemic subsequently dropped out.
- Also linked to the response to COVID-19, most pilots reported struggles in generating interest in their offers when there were a number of competing and often more pertinent offers of support, such as bounce-back loans. Even outside of the pandemic, many pilots found their offers competing directly with grant schemes offering funding for decarbonisation activity, such as those funded by the European Regional Development Fund.
- Even where an SME participated more fully, an environment of lost revenues and uncertainty (related primarily, though not exclusively, to COVID-19) reduced SME appetite for energy efficiency action and/or taking up finance.

Compounding the challenges listed above, a number of pilots had set out to support sectors that had been particularly adversely affected by the arrival of the pandemic e.g. care homes, retail and hospitality.

²² Several pilots took the decision to suspend planned recruitment during the first lockdown in 2020, as they felt this could be perceived to be inappropriate / insensitive.

The final significant challenge cited by most pilots was the extent of the current coverage of smart meters in commercial properties in the UK during pilot delivery. All pilots created plans to handle the lack of smart meter data; however, they felt many SMEs without access to smart meter data may have been put off from engaging due to the extent of data provision required for alternative approaches.

From an evaluation perspective, COVID-19 clouds the ability to assess project success. It is challenging to disaggregate its effects while exploring project performance.

“The pandemic has in some ways slightly masked those projects that perhaps wouldn’t have been as effective.” [BASEE programme team representative]

Another respondent suggested that regardless of COVID-19, projects underestimated the challenges of engaging with SMEs. As will be explored in later chapters, in many cases the pilot teams expect to white-label²³ / franchise their service, meaning that third parties would be conducting engagement of SMEs anyway. There is therefore a question as to how far it matters that the engagement efforts across the pilots didn’t prove particularly effective. However, pilots might need to be able to demonstrate to third parties that target audiences will want to engage in large numbers; efforts deployed during the BASEE competition period produced very limited evidence of this.

2.4. Engagement success factors

The evaluation sought to analyse a range of causal conditions observed for pilot projects that were ‘more’ or ‘less’ successful in engaging with their SME customers. Successful engagement was assessed not just in terms of the number of potential SME customers attracted to the project, but also whether these customers progressed through the pipeline towards delivery of measures. The pilot projects that were better at attracting and establishing relationships with SME customers were those that:

- Had a good understanding of the customer segments they were targeting.
- Used intermediaries as channels to reach their targeted customer segments. The characteristics of useful intermediaries are discussed in Section 2.2.
- In addition to using messaging around reducing energy costs, included messaging around Net Zero and carbon reductions. Several pilots also mentioned SME interest in energy efficiency helping them to create a more pleasant environment for their customers or staff, particularly for those in service-based sectors such as hospitality.
- Offered solar PV to SMEs, in addition to energy efficiency measures. It was highlighted by several pilots that SMEs often had a stronger interest in solar PV than building energy-saving measures, so offering it helped to attract SMEs to the project. Visibility to customers was explicitly mentioned as one factor in demand for solar PV, as well as a perception that solar PV offered a good return on investment.

²³ A white-label product / service is one produced by an organisation, that others can acquire and re-brand.

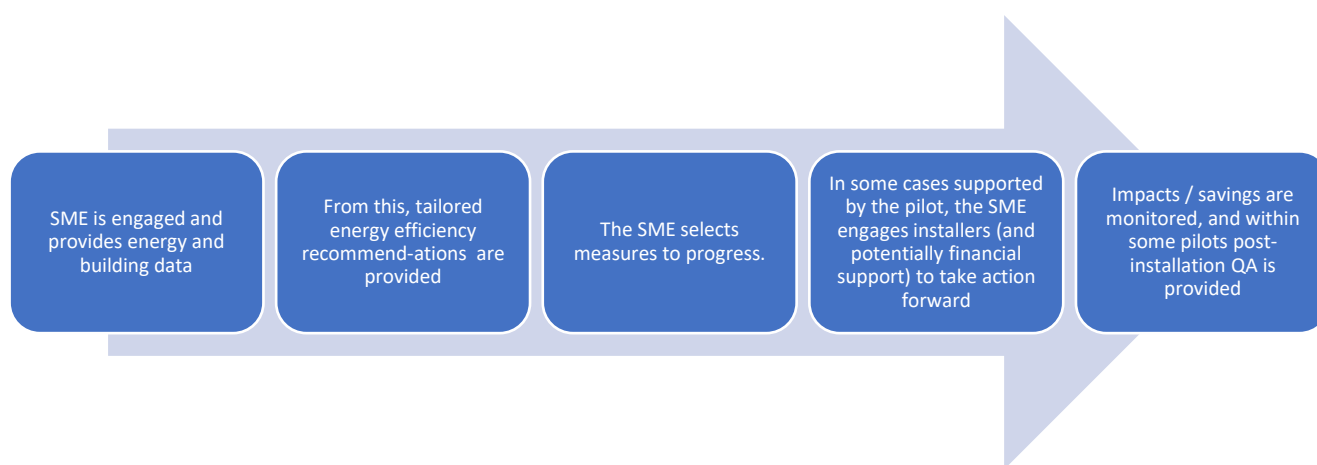
Pilots also cited anecdotal evidence of several reasons for customer drop out, including:

- Loss of interest due to delays in provision of follow up.
- Loss of interest due to COVID creating other priorities / shifting focus after initial pre-COVID interest.
- Recommended actions not being deemed suitable / affordable. Linked to this is that, where pilots had recruited organisations they had an existing relationship with, whilst the SME was happy to test the platform as a favour to the pilot team, it was unlikely they ever had any real intention of taking substantial action as a result.

3. Have the BASEE pilot projects been effective in encouraging SMEs to take up energy efficiency projects and implement energy efficiency measures?

Once SMEs were engaged, the BASEE competition sought for pilots to demonstrate progression from engagement to implementation of energy efficiency measures. Figure 3 shows the basic customer journey to action across the pilots:

Figure 3: Basic pilot customer journey



The Department anticipated from the outset of the programme that even by the end of Phase 2, numbers of implemented measures and realised carbon savings would be limited. For this reason, additional, albeit informal, follow-up of the funded pilots was proposed for 2022-23. This chapter presents findings on action taken within the programme period; per project information on this is provided in [Appendix A](#).

3.1. Extent and types of action taken

At the point of final evaluation, there was considerable drop-out in the customer journey from initial engagement to implementation of measures, and few measures were known to have been implemented by supported SMEs. Despite evidence of energy efficiency action being a known objective of the competition, the extent to which pilots sought to monitor this was mixed.

Progress through the customer journey could be more easily tracked by those pilots who provided support and assistance for SMEs at each step (the ‘one-stop shop’ approach). Though if customers of these pilots pursued the implementation of recommended measures outside of the pilot set up, this was not monitored.

In pilots that only supported some steps of the customer journey, or provided support through third parties, there were fewer opportunities for monitoring. Some pilots only knew if SMEs had

implemented recommended actions if partner organisations (installers and/or lenders) were used and proactively informed the pilot team of this. There was no formal reporting or feedback procedure otherwise.

In other pilots, the platforms were often reliant on SMEs proactively reporting back to the pilots about what actions had been taken, so this could be considered for future energy monitoring.

The SME customer surveys conducted by some pilots indicated that some action had been taken, or was being planned, and the SMEs in question attributed this at least in part to the support provided by the pilot. Of respondents across the SME surveys conducted by the pilots, around a third (15/43) SMEs reported having taken – or were definitely planning – action; in all but one case, the SME attributed the decision to take this action, at least in part, to the pilot support. This is encouraging, but there are several caveats to generalising from this:

- The SME survey responses come from a small sample. And as highlighted in section 2.2, it was the perception of the pilots that their customers during the BASEE period were atypically engaged or interested in sustainability; survey responses would therefore reflect this. And the opt in recruitment, and response rates, on the surveys may further indicate that the survey response group were those that had most engaged or benefitted from their interaction with the pilot.
- Aside from two SMEs reporting insulation, and two reporting replacement of equipment (an A/C unit and a chiller) with more efficient models, the actions that were taken or planned were rarely the substantial energy efficiency measures that BASEE was seeking to encourage. Most reported actions were either behaviour changes, installation of monitoring equipment / BMS²⁴, or solar PV. There were also five examples of LED lighting being installed. There was little or no evidence, within the evaluation period, of SMEs progressing from these onto exploring more substantial action.

Despite BASEE objectives primarily focusing on energy efficiency measures with longer paybacks, some pilot teams opted to focus their offers primarily upon more straightforward measures. Their rationale for doing so was that SMEs, particularly at the smaller end of the market, would be put off by the cost and disruption associated with large energy efficiency measures, and that expecting them to immediately invest in these was not realistic. These pilots argued for easing the SMEs into action through straightforward and low-cost measures (or popular measures such as solar PV), with the beneficial impact of the low-cost measures then encouraging SMEs to explore more substantial measures in the longer term. There was insufficient time in the BASEE competition, and insufficient levels of action, to prove this hypothesis²⁵, though there were few substantial energy efficiency measures in the actions being planned by SME customers.

²⁴ A Building Management System monitors and controls building equipment such as that providing heating, cooling, and lighting.

²⁵ An observation from the evaluation team is that pilot approaches may have inadvertently discouraged installation of larger measures. For example, one provided colour coding for likely payback, using red for longer payback measures.

At the time of final evaluation interviews, while the pilots were expecting to grow beyond the closure of BASEE there are a number of potential detrimental effects of the limited monitoring of some, and the limited level of action reported during the competition:

- With few projects to monitor, pilots could not assess the accuracy of their platforms' cost-benefit calculations.
- Especially where they were providing one-stop-shop or intensive support, pilots could not fully test the installation management and quality assurance elements.
- Most pilots expect that a key tool in both proving the benefits of action, and encouraging SME engagement, will be production of case studies of successful use of their tool. There are currently very few potential case studies across the pilots, and many of these are limited in terms of types of action or impact.
- As will be explored in the Chapters 4 and 5, demonstrating a strong pipeline of SME projects was felt by pilot teams to be crucial in engaging the supply chain, lenders, and potential white-labelling customers. Yet most pilots had been unable to do so during the BASEE competition.

3.2. Addressing known barriers to action

Barrier 1: Resource and time barriers

Analysis of the pilots' approaches to overcoming time, resource and expertise barriers identifies two broad groups of service offers:

1. Those that provided relatively light-touch services to SMEs (including smaller and less energy-intensive businesses) linked to recommendations around relatively low-cost energy efficiency measures and behaviour change; these were usually facilitated by access to an online platform using smart meter data.
2. Those that provided more intensive, site-specific services to larger and more energy-intensive SMEs, focusing on recommendations for costlier energy efficiency measures, where online platforms and smart meter data played a more limited role.

The latter seemed more likely to progress SMEs to considering significant action and were more effective at tracking such cases, though they were also more costly to provide and tended to require more of the SME's time and input.

All pilots undertook user testing with SMEs and refined their products to make them easier for SMEs to use. Feedback reported by the pilots, and provided in the SME surveys, was generally very positive in terms of the ease of use of the tools.

“Choices were presented in a succinct manner and made it easier to reach a decision which we can then progress with in the future.” [SME pilot customer]

Users generally agreed that engagement in the pilots increased their awareness and understanding of energy use in their businesses and helped them identify energy efficiency

measures appropriate to their business. Several pilots mentioned that they included carbon equivalents in their reporting to SMEs to make information on costs and savings more digestible and meaningful for users, for example stating that ‘action x would reduce carbon emissions equivalent to x flights’.

While the trade-off between the accuracy and level of data provision required of SMEs was different for each pilot²⁶, most pilots were clearly addressing knowledge and resource gaps through the energy efficiency recommendations generated²⁷. Several pilots had introduced, or were exploring the possibility of, virtual site surveys to balance time and COVID-related safety²⁸ concerns with the value of collecting detailed and reliable data on SME premises.

After providing recommendations, many pilots left SMEs to progress on their own, with minimal levels of support for sourcing installers, managing works, and seeking finance. Pilots were split as to whether to support SMEs by providing or recommending installers. For three projects, coordination of installation (including obtaining quotes, and post-installation QA) was part of the service, though the evaluation found no particular evidence of these pilots building SME trust in these providers.

However, most pilots did not recommend specific installers, instead signposting generic lists of accredited installers. This was a deliberate decision, with pilot teams arguing that: (a) being seen to ‘sell’ particular installers would undermine SME trust in the rest of their pilot offer; (b) that integrating installers fully could bring further liabilities for the pilot leads; (c) some pilots claimed, with limited evidence, that SMEs would prefer to work with their own trusted suppliers for actual installation.

However, evidence from the SME surveys was more mixed. Some responses would have valued more signposting on how to progress with recommended actions. One pilot did reflect that there could be different tiers of service offered to SMEs so those requiring more help on installer selection and management could be supported.

Due to low levels of action, and low SME survey response rates, there was limited evidence on pilot success in addressing time and resource barriers. However, when asked if the tools they engaged with had reduced the time and effort it would have taken to identify and choose the best investments and measures for the business, the vast majority of SME respondents agreed that it had done so ‘to a great extent’.

Barrier 2: Lack of trust in predicted savings

To enhance accuracy and build SME trust in predicted savings, pilots analysed smart meter, EPCs, and bill data to provide users with objective energy efficiency recommendations tailored to the SME’s activity, energy use and premises. The recommendations to SMEs included

²⁶ Though several pilots provided two surveys / routes to cater for different SME priorities and expertise – a short, simple survey (with less accuracy), or a longer, more detailed survey (which generated more robust information and recommendations).

²⁷ Though it should be noted that where SMEs had to sign Letters Of Authority, the process was more onerous.

²⁸ Though one pilot representative did raise concerns about safety and liability risks with virtual surveys e.g. instructing the SME representative to open electrical units or even stand on something to check lighting.

estimates of the likely capital cost, energy bill savings, energy/carbon savings and payback on different types of energy efficiency actions. These estimates were important for many SMEs in being able to build a robust business case for acting on the recommendations.

Some projects went further to increase SME trust in predicted savings by providing benchmarking information, facilitating multiple installer quotes, and monitoring actual savings²⁹. One pilot partner offered a guarantee of projected energy savings, another claimed that a year of post-installation measurement and evaluation would be carried out, and they would seek to rectify issues with any projects that achieve less than 95% of the predicted savings. Two others offered 'energy as a service' contracts with no upfront cost to the customer.

Overall, the BASEE pilots collectively deployed a number of steps seeking to reduce SME uncertainties. SME survey respondents were positive about the recommendations provided to them (in other words, they were appropriate to the business activity and premises) and were reassured that the predicted costs and savings were broadly accurate.

However, it would appear that trust in predicted savings was not in itself sufficient for SMEs to act. It might be considered a 'hygiene factor'; in other words, necessary for an SME to be sufficiently confident to consider taking action at all, but unlikely (on its own) to motivate action in SMEs faced with other barriers. Due to BASEE timescales and the low level of action taken to date, certain approaches to addressing the barrier (e.g. post-installation monitoring and verification) have not been tested.

Again, there was limited evidence from the pilots as to SME responses to, and trust in, predicted savings. Where the SME surveys asked respondents whether the tools had helped them to obtain reliable estimates of the costs and benefits / rate of return of implementing those measures, the vast majority said they had done so 'to a great extent'.

The final pilot report technical review made varying assessments of robustness across the pilots and highlighted some strong approaches (albeit often noting their high cost). However, there was no clear differences on trust / reliability that could be observed across SME survey responses. However, most of the lighter-touch pilots acknowledged that further surveying would be necessary for significant measures, even if conducted outside the pilot offer.

Barrier 3: High upfront cost of measures and high cost of external finance

The main pilot approach to addressing this barrier was to link SMEs with organisations that could provide external financial support for otherwise unaffordable measures. As with the supply chain, there was a split in how pilots worked with external finance providers. Some partnered with specific finance providers and integrated them into the service offer; they would either promote the finance provider to SME users, or the finance provider would actively contact the SME user once recommended actions had been generated. Other pilots simply

²⁹ It was noted on one pilot, though it would presumably apply to others, that the multiple metrics that can influence energy consumption (occupancy, weather, numbers of occupants etc.) highlights how complicated it could be for SMEs to meaningfully attribute increases or decreases in energy use to particularly smaller energy efficiency actions.

signposted SMEs to links containing lists of finance options. Many of these were grant funding schemes as opposed to commercial finance.

By the end of the competition, several external finance offers had been made by lender partners. However, very few were taken up, and these were relatively small-scale. Two main reasons were given for this:

- For the same reasons as they were dampening SME willingness to invest, wider economic challenges and uncertainty about the future meant SMEs were even less willing than usual to take on additional debt.
- Linked to COVID-19, and some pilots choosing not to integrate external commercial finance offers, all pilots highlighted the large number of financial support offers (COVID-specific, but also ERDF / LA funding) that they could not compete with. The pilot teams felt that most SMEs would not be interested in finance offers at, or even near, commercial rates.

The high cost of measures continued to be a barrier, with some pilot lead interviews and SME survey responses emphasising that certain measures were simply outside of what the business could feasibly invest in. As highlighted in earlier sections of this report, wider economic difficulties during the BASEE competition meant that many SMEs were even less inclined than usual to invest in costly measures with a longer-term payback; partly due to depletion of cash reserves, but also because their future performance as a business (and their use of premises) felt very uncertain.

Barrier 4: Split incentives

Although one pilot specifically targeted landlords / multi-premises owners with their offer, most projects sought to avoid this issue by targeting SMEs that owned their own buildings or had long-term leases³⁰. Short-term leases, and sometimes the details of lease agreements, were felt to be constraining to SME interest in measures with longer paybacks.

3.3. Unanticipated barriers

Pilots reported further barriers to SME energy efficiency that are commonly cited in relevant literature, including disruption and anticipated disruption, delays in obtaining planning permission, or SMEs reporting that they had already taken feasible actions. These might be considered as 'priced in' to pilot design and delivery. However, there were two key challenges that made it more difficult to encourage SMEs to take energy efficiency action than pilots had expected.

COVID-19

As with initial engagement, COVID-19 was cited by all pilots as the principal barrier to SMEs implementing actions. Several concluded that whilst the main barriers to action hadn't really

³⁰ Most said their service could be used by a landlord, but they had made little attempt to tailor a service for, or seek to engage, this audience.

changed, COVID-19 had intensified them. Discussed across the preceding sections of the report, these barriers included: heightened financial uncertainty and unwillingness to make longer term investments or access commercial finance; a focus on business-critical priorities rather than energy efficiency (especially in the context of reduced premises occupancy); challenges in establishing sensible consumption benchmarks to generate recommendations³¹; challenges in delivering any on-site or in-person elements of proposed customer journeys³²; and other local and national funding schemes, distracting both SMEs and the retrofit supply chain³³.

It was hypothesised that the pandemic could lead to a more favourable climate for projects. For example, increased SME interest in refurbishment arising from moving premises, firms increasingly seeking even marginal energy savings, and commercial landlords seeing energy efficiency as a way of differentiating their offer, and attracting tenants, in an unfavourable climate. However, at the time of evaluation these hypothetical outcomes have not yet arisen.

Access to data

All pilots cited issues with access to SME energy consumption data. To work optimally (in terms of both efficiency and accuracy) many of the pilot platforms relied upon having access to real-time smart meter data.

However, they reported that many SMEs were not able to engage because they lacked the metering; all pilots felt that both recruitment and delivery of the intended customer journey would have been easier if the rollout of smart meters at this point was more widespread. COVID-19 was reported to have significantly slowed the rollout.

As a result, for some pilots there was either a smaller pool to recruit from, or a potentially higher proportion of SME users receiving less robust information and guidance from platforms that would ideally have utilised smart meter data to provide automated outputs.³⁴

Pilots had designed ways of working around this (such as using energy bill and EPC data) but this made the process more burdensome for SMEs and many pilots felt utilities were slow to process requests for access to consumption data. Those partnering with energy suppliers were in a better position to filter out those buildings without metering.

Analysis found that amongst pilots whose models relied on access to smart meter data, those partnering with energy suppliers were in a better position to (a) filter out those buildings without metering; (b) more efficiently gain access to the smart meter data.

³¹ Especially an issue where a key selling point of a platform was the high resolution and accuracy of its guidance based on actual consumption data.

³² Making it harder to progress SMEs to the point where they might consider investing in measures.

³³ Several pilots reported that they had struggled to secure responses / quotes from a number of installers, creating delays which can then lead to SME customers disengaging.

³⁴ In addition, slow TPI / supplier responses to signed LOAs (to access SME consumption data) were also reported by most projects as a significant hurdle in progressing projects.

4. Have the BASEE project business models demonstrated they will stimulate the SME energy efficiency supply chain?

Another key objective of the BASEE competition was to address barriers to supply chain interest in the SME energy efficiency market, particularly high transaction costs and perceptions of low SME demand.

This chapter summarises pilot efforts to engage the non-domestic energy efficiency supply chain and overcome the known barriers; details on individual pilot approaches are described in Appendix A.

All pilots undertook some level of engagement with providers of energy efficiency products and services to inform the development of their service offers and associated tools. As outlined in the previous chapter, some pilots integrated supply chain firms in their service offer, either through direct relationships or access to installer frameworks operated by other organisations³⁵.

“We had established partnerships with installers for LEDs, BMS, commercial rooftop PV and battery storage. These were recruited via contacts from previous projects and via networking with stakeholders in the energy industry.” [Funded pilot]

Several pilots also sought to directly market to and engage installers with their platform – methods included cold calling and emails, promotion through third parties (e.g. trade associations) and exhibitions at events.

Others, usually for liability reasons or perceptions of customer preferences, chose to signpost customers to accredited installer lists. The latter group was largely unable to speculate on whether their approach had increased supply chain appetite for working with SMEs, or led to increased uptake of energy efficiency.

4.1. Reducing costs by providing a pipeline of SME projects

The opportunity to access potential new SME customers was seen as the main incentive for suppliers to engage with the pilots. Securing SME customers was identified by pilots and supply chain interviewees as costly and time consuming; suppliers can, in theory, save time and money if tools are able to generate new customers for them. Supply chain engagement and the SME energy efficiency projects³⁶ they generated across the pilots is shown in table 4.

³⁵ Sometimes pilot partners.

³⁶ In most cases, a ‘project’ represents an SME considering taking forward one or more energy efficiency measures.

Table 4: Summary of per pilot supply chain liaison and ‘pipeline’ of projects

Pilot	No of suppliers involved in the pilot	Potential projects generated	Installations
DEEP	4	25 projects created by users	None known
REZEE	Links to external lists	None known	None known
fluttr	4	None known	None known
E-CAT	Links to existing lists	7	6
ESCO-in-a-Box	23	17 suppliers prepared quotes	None known
Zero carbon pathways	Links to existing lists	2	None known
QEnergy	11	38 measures recommended	13
Smarter Choices	11	4 (additional 6 identified as part of a future pipeline)	None known

Within the BASEE funding period, the levels of SME engagement rendered the pilots unable to demonstrate a viable market for suppliers. This was noted by a number of supply chain respondents, who felt the pilot concepts were yet to be proven and were unconvinced that they would see a steady pipeline of work through them. As one pilot team noted, suppliers tended to want to see evidence of a strong pipeline *before* engaging, especially if they were being expected to pay fees for membership or delivery of works through the platform.

4.2. Reducing costs through information

Several pilots reported that their tools should, in principle, reduce supply chain costs through provision of upfront data on the customers’ energy use and premises. Whilst supply chain interviewees agreed the upfront customer insight in particular would be useful, there was no evidence during the funding period that pilot approaches led to reduced supply chain costs that could or would be passed on to SME customers.

This was in part because none of the pilots generated a significant number of projects where opportunities for efficiencies and reductions in transaction costs could be demonstrated. However, in many cases, the supply chain still needed to undertake standard surveying and checks to collect site-specific data, such as on building layout, that the platform did not capture, which limited the potential for substantial cost reductions.

4.3. Reducing costs through aggregation³⁷

As part of the BASEE competition design, the Department envisaged aggregation of SME energy efficiency projects as a route to reducing costs for the supply chain through economies of scale. For example, equipment and materials could be purchased for several projects at once which would potentially reduce capital and administration costs.

Most pilots did not include a specific methodology for aggregation, anticipating that suppliers would lead on aggregating potential projects, and noting that their platforms could be used to manually build portfolios of energy efficiency projects. Three pilots did have more focus on aggregation, though this was more in relation to lenders bundling projects.

Several pilots highlighted supply chain views that aggregating would not generate substantial benefits for them, as any savings from buying in bulk (estimated at 5-10%) might be offset by the increased challenges of dealing concurrently with multiple sites in different locations³⁸.

4.4. Further barriers to supply chain engagement

As shown in Table 4, the number of supply chain businesses engaged by the pilots varied. In part, this variation was a design choice, as some pilots expressed that, at least initially, they only needed a limited number of suppliers. However, several pilots reported difficulties with securing supply chain engagement with their project.

Beyond pilots not being able to provide robust evidence of supply chain benefits within the BASEE period, two external barriers to supply chain engagement were noted by pilots:

- Trying to attract firms in competition with higher profile programmes, especially free and subsidised offers seeing much larger SME interest and take-up. In a few cases, competition with pilot offers came from installers offering free site visits and quotes as part of their service.
- Linked to this, supply chain constraints and issues with firms being too busy to engage. Many of the firms the pilots were seeking to engage already had full order books, which weakened the pilot offer of a pipeline of projects for these firms. This finding echoes that of a number of recent research studies and evaluations³⁹, whereby retrofit supply chain capacity, including equipment, labour and skills, has been a barrier to (timely) action.

³⁷ In the context of BASEE, aggregation was viewed as the bundling of individual EE projects into a larger project that might be more attractive to the supply chain and finance providers, in terms of both the total size of the opportunity, and achieving economies of scale.

³⁸ Care homes were reportedly concerned that being dealt with as part of a package of jobs might lead to delays on their site if suppliers ran into problems on another site in the same portfolio. It was noted that work in care homes needs to be carefully scheduled to minimise disruption to their clients.

³⁹ For example in the recent Process Evaluation of the Public Sector Decarbonisation Scheme, and the final evaluation of the Supply Chain Demonstrator Project.

5. Have the BASEE projects demonstrated that they will encourage lenders to provide finance for SME energy efficiency activity?

A key objective of the BASEE competition was to address barriers to SME take-up of finance for energy efficiency projects. A key component was encouraging lender interest in SME energy efficiency, through addressing perceptions of low demand, as well as high costs and risks. This chapter summarises pilot efforts to engage lenders and overcome known barriers; details on individual pilot approaches are described in Appendix A.

As with supply chain engagement, there were two broad groups amongst the BASEE pilots: those with finance providers integrated into the team or offer, and those taking a more arms-length approach, signposting external finance opportunities (sometimes including grant schemes as well as commercial lending)⁴⁰. The latter approach varied between provision of links tailored to the SME sector, and signposting to pre-existing external platforms providing information on suitable finance options.

5.1. Addressing barriers to lender engagement

As with the supply chain, a key drivers for lenders to become more involved in the SME energy efficiency market (and design products and set rates to engage SMEs) would be demonstration of strong SME demand. As highlighted by several finance providers involved in the pilots, this demand was not demonstrated within the competition period, and therefore finance providers remained unconvinced.

Barrier 1: High transaction costs from engaging individual SMEs

The clearest reported opportunity to reduce lender costs was through the provision of new SME customer contacts, which creates savings by avoiding the cost of marketing and engagement.

Several lender interviewees confirmed that they saw this, as well as up front provision of customer information, as a key potential benefit. One pilot suggested that by filtering out the less viable projects, lender costs would be reduced as they would be less at risk of spending time and money on ultimately unsuccessful applicants. Another included the offer of 'soft' credit checks on SME customers prior to passing them to lenders.

However, projects that spent more time on lender and supplier or SME engagement and coordination effectively assumed the costs that would otherwise be borne by the lenders. This often resulted in high and potentially unsustainable costs for these pilots. In practice, no evidence of actual savings was identified by any of the projects.

⁴⁰ These projects did however consult with lenders and financial experts in the design of their services.

And as limited numbers of SMEs were engaged, and only a small proportion were open to offers of commercial finance, no evidence of addressing this barrier was found.

Barrier 2: Payback uncertainty

Most pilots intended to improve lender confidence in predicted measure savings and payback through reassurance based on the robustness of their models. However, all reported a mixed lender response to this strategy.

On one hand, pilots reported that lenders they engaged with felt that pilot impact figures were broadly accurate and sensible based upon their own experience. Lender interviews corroborated this. In addition, lenders welcomed the provision of pilot features like post-installation quality assurance and verification of savings.

The programme hypothesis was that this improved confidence and reliability would lead to reduced costs and risk, and therefore improved rates and offers. However, this was not proven in the BASEE pilot period. Partly as a result of FCA⁴¹ regulations and due diligence, in many cases lenders would need to conduct their own site surveys and visits anyway. This meant no significant reductions in costs for lenders through pilots conducting an up-front site survey.

Linked to this, whilst lenders welcomed the additional reassurance brought about by the accuracy of predicted savings and the quality assurance processes around energy efficiency measure installation, many reported that their lending, and assessment of risk, was on SME creditworthiness, not the likelihood of predicted energy and bill savings being realised.

Barrier 3: Standardisation and simplification

Two pilots reported that they had simplified, or anticipated simplifying, the process for securing finance through the use of standardised documentation, with one allowing for use of lender templates or forms where appropriate.

However, whilst pilots reported that lenders had responded positively to this, there was no sense from lender interviewees that this standardisation would lead to significant cost efficiencies that would either attract them to SME finance or reduce rates on their finance offers.

Barrier 4: Aggregation

Most pilots reported that whilst their tool lacked an aggregation function, they could be used by suppliers to build portfolios of energy efficiency projects through the aggregation of customer contacts generated by the tool and could thereby enable a supplier to secure economies of scale when purchasing equipment and materials. However, at the time of evaluation, only one pilot seemed to have made tangible progress with aggregation.

This pilot actively looked to use aggregation to improve the attractiveness of SME energy efficiency to project lenders and succeeded in securing interest from higher value lenders

⁴¹ Financial Conduct Authority – the conduct regulator for financial services firms and financial markets in the UK.

(those only interested in investments of £500,000 or more) in an aggregated portfolio of SME energy efficiency measures. At the time of final evaluation they secured third party quotes for multiple bundles of potential SME projects. A key reported attraction for these investors was the avoidance of needing to incur the costs associated with detailed engagement with multiple SMEs. However, at the time of the evaluation, aggregated projects and funding was yet to proceed and no transaction cost benefits had been delivered.

There were contradictory views on aggregation. One supply chain interviewee felt that, given sufficient volume, it might be possible to reduce equipment costs through bulk orders. Yet one pilot reported feedback from lenders that variation between measures, the value of loans, and perceived SME creditworthiness and ability to pay them back makes it easier to deal with applications on a case-by-case basis.

5.2. The extent of lending within the BASEE funding period

Where pilots were signposting SMEs to a range of external funding options, they were unable to say what the outcomes of this had been, or whether any commercial financial support had been taken up.

Overall, and considering the challenges described in the sections above, known examples of commercial lending for SME energy efficiency projects within the BASEE period were very limited. Pilots were able to report that they had secured agreements with a small number of lenders covering the types and size of project they would fund, and rates they would offer. However, there were very few offers made to SMEs that generated energy efficiency recommendations, and even fewer acceptances. One pilot was, at the time of final evaluation, awaiting lender offers on an aggregated bundle of SMEs and energy efficiency measures (valued in the hundreds of thousands).

Again, pilots reported that the widespread availability of COVID-19 recovery funds and ERDF funded energy efficiency programmes made it difficult to 'sell' loans to SMEs. In addition, there was the aforementioned SME reticence, especially in the context of economic challenges, in taking on debt.

6. What energy and carbon impact have the projects had (or can be expected to have in future) on reducing energy consumption among SMEs?

As highlighted through this report, across the pilots there were significantly lower levels of SME engagement and progression to action than had been anticipated at the outset of the programme. Actions taken were often limited to behavioural and monitoring steps or renewable energy (particularly solar PV) measures, which BASEE did not originally seek to support. On this basis, *at the point when BASEE programme funding ended*⁴², achieved energy and carbon savings could not be measured robustly, and a Cost Benefit Analysis could not be carried out. More details on the methodological approach can be found in the Technical Methods Annex.

6.1. Have pilots demonstrated that they will be 'scalable'?

Linked to an assessment of whether the pilots' projected impacts will be achieved, is a qualitative assessment of whether they demonstrated scalability during the BASEE competition. Scalability was one of the BASEE objectives, though it should be emphasised that there was no expectation that pilot solutions would be fully commercialised or achieve substantial impacts within the lifetime of the funding competition. In this context, scalability refers to when a delivery model can be scaled to reach a significant SME market, and that there is evidence of customer demand.

All pilots expected to continue beyond the end of BASEE funding, and all but one pilot have plans for commercialisation⁴³, although at different rates. Some still expect to use 2022 and 2023 to further refine their offer before full launch. Whilst some lead delivery organisations expect to continue trying to target SMEs directly, several organisations leading pilots have already entered into contracts and negotiations with other organisations, licensing or white labelling their product, with clients including utilities, ESCOs, and local authorities⁴⁴. For some pilots, this approach to commercialisation was always the intention, but others considered multiple options. Whilst none of the latter group completely dismissed direct-to-SME sales, it is notable that over the course of the BASEE competition, they seemed to lean more towards licensing and white-labelling as the most viable approach.

“There’s so many barriers for SMEs already that putting a payment in the way doesn’t help. Value add from a utility seems the way to go, or suppliers pay to advertise on the platform.” [Pilot representative]

⁴² Autumn 2021 for most projects, though Smarter Choices was extended to February 2022.

⁴³ One pilot is exploring the provision of the platform for central and local government use.

⁴⁴ It was felt by several pilots that many intermediaries will have a vested interest in promoting / valorising energy efficiency.

For pilots that still hope to sell their product directly to SMEs, the main challenge is the lack of SME engagement and uptake throughout the BASEE funding period, even when services were offered for free. Whilst some pilots conducted research with SMEs around willingness to pay for hypothetical offers, there was no testing of actual appetite for a paid-for service.

That said, SME engagement is a concern regardless of route to commercialisation, as third parties would be unlikely to pay to license the product without the probability of significant uptake. Whilst COVID-19 created unprecedented challenges for the pilots, and recent energy price rises may result in SMEs being more conducive to energy efficiency offers, SMEs continue to experience high levels of uncertainty. The main uncertainties pertain to both long-term performance and building occupancy, which would affect both SME appetite to explore energy efficiency in the first place, and the measures they would consider. As noted in review of pilot projections, uncertainty around the characteristics of the economy in the next few years means greater risk of inaccuracy in assumptions around market size, composition, and energy consumption.

Overall, however, the evaluation findings are encouraging with regard to future plans. The pilots were intending to continue with efforts to commercialise and were considering alternative routes to market, rather than abandoning their offer.

7. What was the influence of BASEE on the design and delivery of the funded pilots?

This chapter considers the role of BASEE's design and delivery processes in supporting the observed outcomes, and what would have been achieved in the absence of the competition and funding.

7.1. The appropriateness of BASEE objectives

The evidence from the wider literature, reiterated in the BASEE competition documents, overwhelmingly supported the need for solutions that encourage greater and quicker SME energy efficiency activity. The barriers to SME energy efficiency activity, and energy services market engagement with SMEs, were well-documented⁴⁵, evidencing the need for the BASEE programme, and its focus on SMEs. Respondents to the evaluation (the programme team, wider stakeholders within the Department, funded and unsuccessful projects) were unanimous that BASEE was addressing an important gap in meeting UK climate goals.

Projects were supportive of the prioritisation of energy efficiency, though some felt that the inclusion of renewables generation, rather than a focus on demand reduction measures, would have been beneficial to project success. The projects were able to integrate renewable measures as part of a wider energy efficiency offer and were free to adapt their project once their period of BASEE funding ended. However, the competition rules did mean the offers being tested did not always precisely resemble the likely post-competition offer.

The decision to reduce an original emphasis on aggregation to ensure greater applicant interest proved sensible, especially in the context of COVID-19 and the challenges with engaging SMEs. However, as a result, the projects did not design, test, and assess aggregation solutions to the extent initially intended by the Department. This impacted BASEE's ability to provide useful policy insights relevant to this area.

Some projects did explore the feasibility of facilitating aggregation through their solutions, such as through commercial landlord portfolios. However, they encountered challenges, albeit some particular to the competition and its timing, that demonstrate how a competition focused solely on aggregation would likely have received less interest and so may have generated fewer insights, learnings and outputs overall.

Therefore, overall, the evaluation findings indicate that the original objectives of BASEE were appropriate in both identification of the barriers to address, and the extent to which it sought to encourage particular pilot approaches.

⁴⁵ For example, in this research paper from 2018: www.gov.uk/government/publications/non-domestic-energy-efficiency-services-market

7.2. The effects of BASEE design on pilot profile and outcomes

Many elements of the programme's design were supportive of its objectives, including:

- The launch and promotion of the competition was effective in attracting applications from a range of organisations, different types of delivery consortia and different solutions.
- The Phase 1 application window was of sufficient length, and the assessment criteria clear to support the application process. No unsuccessful applicants raised objections about the outcome of the funding and contract awards.
- The two-phase approach (a feasibility study stage prior to the award of a Phase 2 contract) was acknowledged by all consulted in the evaluation to be valuable. The three-month first phase enabled feasibility testing, providing most pilots with important market insights, some endorsement of their proposed approaches, and highlighting the need for refinements. Most pilot delivery teams, and the BASEE programme team, would have welcomed this first phase being even longer; the early stages of Phase 2 effectively continued feasibility work for some⁴⁶.
- Aside from sporadic issues with the speed of invoice sign-off, pilots were positive about programme management throughout Phase 2, and did not view BASEE monitoring and reporting, including external evaluation requirements, as excessively onerous.
- Throughout the programme, all project teams felt that the BASEE programme team (within the Department and individual monitoring officers) had been responsive, flexible, and good to work with. In particular, the pilots welcomed the flexibility and understanding of the Department in the form of significant extensions to project timetables.
- Changes to monitoring processes, including refocusing of quarterly pilot, a final closure report structure based around the programme objectives, additional technical assessment of pilot outputs, and several cross-pilot workshops, were effective in maximising insights.

However, whilst it was never expected that all pilots should seek to address all the known barriers, across the pilots there was a limited focus on particular BASEE objectives. Across the pilots, there was limited focus on areas that were considered by the Department to be key opportunities in the initial BASEE concept, including aggregation, addressing landlord-tenant 'split incentives', and in-depth coordination of installers and finance providers for SME customers (as opposed to simply signposting external lists). The Department had initially hoped for more 'one stop shop' solutions.

Some of the platforms and approaches developed by the BASEE-funded pilots also did not represent significant innovation beyond pre-existing solutions. All the pilots were found to have, to some extent, adapted and amalgamated some pre-existing tools into a new solution rather than building a solution entirely from scratch. Three of the pilot solutions built on work

⁴⁶ Though projects were still adapted throughout Phase 2, so the solution as of the end of Phase 1 was not fixed.

undertaken as part of the Department's Non-Domestic Smart Energy Management Innovation Competition (NDSEMIC), and one also built on work funded through the Smart Meter Enabled Thermal Efficiency Ratings (SMETER) programme. One pilot entered the BASEE programme with an existing platform and BASEE funding was used to enable an expansion of the functionality of this platform.

The evaluation analysis observed that pilots attempting to address all major barriers comprised a more intensive and costly package of support. In most cases, they also seemed to have a clear vision of their offer and target audience, and be targeting more energy intensive SMEs. Instances of non-alignment with BASEE objectives also seem to have been at least partially due to BASEE design and rules. The evaluation found the following:

- Whilst the evidence base underpinning the programme identified a range of likely barriers to SME energy efficiency action, there was no specific requirement for applications to demonstrate how they would address each one.
- In the initial design for BASEE, there was a strong emphasis on aggregation as an optimal solution. The final competition document was more neutral on solutions, to encourage a larger and more diverse set of applications, and so increased chance of 'successful' solutions.
- Also in the competition documents, the application assessment criteria sought to balance competing objectives, such as innovation versus the aim for pilots to progress to commercialisation and achieve impacts. The largest single assessment criterion in the BASEE competition guidance was 'total cost' at 20% of the assessment score. While this was the minimum possible proportion, it is likely that lower costs were easier to achieve for less ambitious pilots (such as those building on pre-existing solutions), as well as larger organisations able to cross-subsidise resources.
- Review of pilots' SME engagement plans by the Department may have enhanced project plans and meant some challenges and barriers to engagement did not need to be 're-learned' by some. Particularly in Phase 1, pilots used significant resources on research that sometimes rediscovered barriers to engagement, and potential solutions, that were already known to the Department, and indeed had underpinned the BASEE concept.
- Pilots' plans for commercialising solutions often involved targeting larger businesses or those towards the larger end of the SME market (in terms of energy consumption), which would seem to contradict the intended outcome for funded solutions. Limited customer numbers have also had a knock-on effect on projects' ability to trial aggregation.
- A potential communications issue, that may have limited outcomes during the funding period, was some projects' lack of clarity on programme rules. For example, larger businesses and commercial landlords could be engaged by projects if this better enabled aggregation which included SMEs, but some projects seemed unaware of this.
- Whilst the pilots were not expected to achieve substantial outcomes within the competition, and were granted extensions due to COVID-19, it may be that the BASEE

time period was too short for pilots to fully develop their solutions, and process sufficient SMEs to generate robust findings on all aspects of the process.

7.3. Attribution

When asked to consider where their pilot would be in the absence of BASEE, the overwhelming response from teams was that it would not have existed without BASEE. Offers were often developed from similar existing platforms or based on ideas that were discussed prior to the BASEE launch. However, pilot teams insisted that in the absence of BASEE, equivalent internal funding to develop a similar offer would not have been made available. In particular, most pilots said they would not have focused exclusively on SMEs or energy efficiency, due to the difficulties in engagement that underpinned the BASEE programme.

Process tracing analysis was used to examine the question of additionality by testing a set of hypotheses and analysing which best fit the available evidence. More information on this approach can be found in the separate technical methods annex to this report.

The analysis concluded that, for all pilots, the most supported hypothesis was that BASEE funding was 'clearly additional' and played a major role in supporting the development of their project ideas and the generation and observation of learnings. The pilots unanimously agreed that the principal benefit of BASEE was the funding. Participation was felt to have brought several additional benefits, including:

- Delivering the pilot within BASEE (a Government scheme) provided an impetus and organisational discipline to engage properly with service development and persevere with it.
- All funded pilots agreed that being a part of BASEE had reputational benefits as an indication of Government endorsement. Several reported that they had been able to leverage this to facilitate engagement with partners, wider stakeholders and (where relevant) potential franchisees. Regarding SME engagement, it was hypothesised that SMEs would be more likely to consider approaches from 'Government-endorsed' schemes, though there was no clear evidence that the status of BASEE had been a key factor in encouraging an SME to participate.

8. Learnings - how can BASEE aims be further supported in future?

As well as seeking to address barriers, one of the key objectives of the BASEE programme was generating learnings as to effective solutions, and how barriers might be most successfully addressed in future.

Building upon the assessment against intended BASEE outcomes, and consideration of the influence of the BASEE programme (and wider factors) on that, this final chapter summarises suggestions⁴⁷ for:

- Potential areas for enhancement for a future programmes, in terms of its design and delivery.
- Changes to the wider economic and policy landscape that may better facilitate SME energy efficiency.

8.1. Considerations for future programme and competition design

The Department should consider the following when designing future innovation programmes:

- Retain a multi-phase approach and consider the beneficial impact of extending the first phase. This may be most useful for project concepts that are not fully formed at initial application stage. One stakeholder also argued for a mid-point review or 'stage gate' in Phase 2 to assess project progress and the value of continued funding⁴⁸.
- Ensure application requirements and assessment criteria encourage innovation. This means consideration of the type and amount of information required in competition applications, such that nascent projects are not penalised. The application process tended to favour projects that were already well formed and researched, instead of the projects that might comprise a novel, but not very fleshed out, concept. Whilst the BASEE assessment criteria strived for a balance in assessing applications, it may be that 'innovation' and 'demonstrating commercialisation and scalability within programme timescales' are somewhat incompatible.
- Consider setting nominal objectives and targets around audience engagement and action, that can be monitored by the programme team throughout. This would ensure shared understanding of the anticipated scale of activity and where it is being exceeded or not being met, and in turn would encourage pilots to keep track of these metrics.

⁴⁷ Principally from respondents to the evaluation.

⁴⁸ A suggestion from one pilot to increase SME engagement was to allow programme funding to be used to subsidise audits, and / or the installation of measures. However, this would have made the potential commercialisation of the projects even more difficult to assess.

- Maximise the value of project communications, monitoring and reporting by establishing them earlier, and focusing them on learning objectives. The changes made to project monitoring and reporting in 2021, including guidelines on specific areas for projects to report against, cross-project workshops, and incorporating technical review were almost unanimously welcomed.
- Especially where significant project progression is expected post-completion of the competition or funding period, it is valuable to conduct some form of follow-up monitoring or data capture. This provides insight into ongoing activities, impacts, and challenges, and provides a longer term understanding of funded project and overall programme impacts.
- The Department could also consider extending or tapering funding to certain pilots. Particularly in the innovation space, it can be challenging for projects to continue to progress the TRL of their solutions when funding support is abruptly ended.

8.2. Changes to wider policy

Competition participants, and wider stakeholders, were also asked for their views on how Government should look to further support and achieve the objectives that underpinned BASEE. As well as the usual calls for greater and more sustained funding for SME energy efficiency measure installation, ideas included the following:

- Rates relief and green lease agreements were cited as potential incentives; one lender also sought to make the case for Government to underwrite or guarantee robust energy efficiency installation business cases, giving more confidence to SMEs in taking action.
- Acceleration of the smart meter rollout to commercial premises, and greater transparency on deployment, to more effectively target certain sectors or geographical areas. It was also suggested that energy brokers / TPIs⁴⁹ should have the ability to request a meter installation on behalf of a consenting customer. In addition, several pilots requested changes to GDPR / LOA⁵⁰ processes to enable more efficient access to business energy consumption data where the business has granted permission.
- The evaluation has also highlighted that the effectiveness of offers similar in nature to the BASEE pilots could be maximised by focusing on renewable energy as well as energy efficiency measures, targeting SMEs through intermediaries, and making sure to highlight beneficial impacts beyond financial savings.

In interviews conducted in 2021, many respondents felt that it would be challenging to achieve a fundamental change in levels of SME energy efficiency action without macro-level change. External pressures such as rising energy prices and/or new MEES are likely to increase SME

⁴⁹ TPIs (Third Party Intermediaries) are organisations or individuals that give energy related advice around buying energy and/or managing usage. They include switching sites, energy brokers and any company offering support with energy procurement.

⁵⁰ Letter of Authority – in this context, a legal document authorising pilots to correspond with energy suppliers on behalf of the SME customer.

interest in building improvements, with potential commensurate effects on supply chain and lender engagement in this market.

Appendix A: BASEE pilot summaries

These summaries outline key successes, challenges and outcomes that arose on the eight individual pilots, evidencing and underpinning the overarching findings and conclusions in the main report.

Arbnco

Supported by a consortium including British Gas and the Energy Systems Catapult, arbnco developed the Digital Energy Efficiency Platform (DEEP), aiming to empower SMEs with a sound business case for implementing energy efficiency interventions.

Smart meter energy consumption data, outdoor environmental conditions, and the building's historic energy consumption patterns were used to train a model which can be used to predict the business's future energy consumption. The platform generated bespoke energy efficiency recommendations covering retrofittable technologies and behavioural changes, categorised as a) cost effective, b) green initiatives, or c) quick wins. Each came with a category, description, thermal and visual comfort improvement indicator, and disruption level indicator. The recommendations were presented together with approximate costs, payback period and CO2 saving. In response to installer quotes, users could change update upfront costs and payback periods for measures.

To support SMEs in taking forward recommendations, the platform connected the user directly to installers of recommended measures, and green finance providers. Users could request a quote (with an opportunity to add comments such as time or space limitations), receive notifications when quotes were received, and could attach installer quotes to finance plan requests.

How effective was DEEP in encouraging SMEs to engage and implement energy efficiency measures?

Following an initial testing stage involving a small number of selected firms, 7,500 SMEs from the British Gas customer base were invited to use the platform. In the final stage of the pilot, to test a direct-to-market business model, SMEs from three distinct geographical regions in the UK were invited to trial DEEP. The trial was promoted to SMEs in each area through social media, webinars, and local networks and stakeholders.

Through the relationship with British Gas, arbnco were able to both reach a large number of potential customers and filter which customers were approached to better ensure eligibility, such as targeting SMEs able to provide smart meter data. Despite this, only around 0.1% of the targeted SMEs created an account on DEEP, with around a third of this group submitting the necessary information to enable recommendations to be generated. Over the three stages, a total of 78 SMEs created an account on DEEP and 25 SMEs generated recommendations, with most focused on 'quick wins' and behavioural measures.

The team emphasised the severe detrimental effects of COVID-19 upon SME ability and willingness to engage, exacerbated by the main target sectors for the pilot (retail, hospitality, and offices) being particularly adversely affected. The team reported greater willingness to engage, and certainly greater willingness to pay for the platform, amongst SMEs with higher energy costs; those with lower costs often saw little value in pursuing energy efficiency measures compared to time spent addressing other business needs. Another issue was data provision; even those SMEs with the requisite smart meter set-up cited issues in sourcing and providing the requisite information on their building(s) and energy use.

Within the BASEE competition and evaluation period, and despite the signposting and facilitation around installer quotes and finance provision, no SME energy efficiency installations were known to have occurred because of DEEP use.

Did DEEP demonstrate it would stimulate the supply chain for energy efficiency products and services aimed at SMEs?

Whilst DEEP could signpost SMEs to the installation supply chain of partner organisations like British Gas and Capitas Finance, the pilot team also sought to identify and engage other appropriate suppliers for SMEs to approach for quotes. The hook was that DEEP would enable low-cost generation of new leads, and could mitigate lack of expertise in engaging SMEs. A few installers were attracted by this prospect, though the pilot team found it challenging to engage some of them, especially those in busy sectors like heat pump installers, and many wanted to see a strong pipeline before engaging, particularly if asked to pay a fee to register on the platform. It was also noted that a considerable investment of time was still needed by installers to scope and validate potential projects.

No new business is known to have been generated for suppliers within the competition period. The available evidence indicates that the DEEP project has not, to date, demonstrated a sufficient pipeline or, more specifically, widespread SME demand for the DEEP platform. There was no evidence that the pilot generated financial benefits for supply chain actors.

Did DEEP demonstrate it would encourage lenders to provide finance for SME energy efficiency activity?

DEEP provided a mechanism for introducing SMEs to lenders, and vice versa. It also provided both parties with indicative savings figures. However, DEEP did not seem to be perceived by lenders to have simplified or standardised their approach to provision of finance, influenced more favourable rates and conditions, or necessarily encouraged them to become more involved in providing financial support or products for SME energy efficiency work. SME customers responding to the survey were generally not interested in accessing external finance for energy efficiency action.

One organisation, already involved in provision of green finance to SMEs, said their involvement with the project was useful in generating leads, with DEEP providing some useful up front customer information.

To what extent does DEEP deliver on the attributes sought by the BASEE Competition?

Was the innovation new?

DEEP was identified as being a new tool, created specifically in response to the BASEE competition, although it was acknowledged that the analysis and algorithms underpinning DEEP were pre-existing, and re-purposed for SMEs.

Was the innovation additional?

There was a general consensus amongst pilot partners and stakeholders that a focus upon the SME market – and therefore DEEP - wouldn't have happened without BASEE funding motivating it.

Is the innovation scalable?

Arbnco see utility companies or third-party intermediaries as the most appropriate route to the SME market. This approach provides scale, and enables direct access to customer energy consumption data, critical to the development of bespoke energy efficiency recommendations. At the time of the evaluation, Arbnco have signed contracts with two utility companies, developing DEEP for use with these companies' clients (some of whom are SMEs), however the viability of the product as a fully commercial proposition has yet to be tested and confirmed.

BRE

Utilising the Simplified Building Energy Model (SBEM) tool⁵¹, BRE sought to develop an innovative energy modelling tool and website to assist residential care home providers to improve the energy efficiency of their buildings. This sector was selected on the basis that (a) being residential but non-domestic, it can sometimes fall between the gaps of existing support; (b) it has high energy consumption, often inefficient buildings, and tight margins; (c) energy efficiency improvements could deliver significant health and wellbeing benefits.

Based on care home responses in the tool, a number of assumptions are made about the building fabric, building size, thermal efficiency, heating, lighting etc. and recommended measures are generated, with estimated annual energy, financial and carbon savings, installation cost and payback period, and the likely level of disruption caused during installation. The model then runs through a process to calculate the difference between the energy consumption of the current building and the consumption of the building if recommended improvements are implemented.

The website was designed to stimulate and enable energy efficiency improvements by:

- Enabling care home providers to identify the most efficient and effective ways to improve the energy efficiency of their particular buildings.
- Providing independent and impartial guidance on ways to fund and procure energy efficiency improvements.
- Helping care homes find trusted suppliers and contractors.
- Ensuring care homes meet the relevant current government minimum energy efficiency standards and are compliant with the latest regulations.

How effective was REZEE in encouraging SMEs to engage and implement energy efficiency measures?

- Initial in-depth discussions on the tool's value proposition and feasibility, with a handful of SME care home providers, was followed up with an online survey that went to all SME care home providers. This explored the usefulness of each proposed website feature and more broadly to understand why they would or would not use the website. Over 100 care homes (fully) completed the survey; over 70% said they would use it.
- To ensure as many care home operators as possible could use the tool, two versions of the data input form for SMEs to complete were created; a simplified version requiring less time and technical information to complete, and a longer more detail form that generates more robust data and recommendations.
- Once developed, the prototype website was circulated to over 9,000 care homes. Despite BRE also carrying out a large marketing and publicity campaign via regional

⁵¹ Used to generate Energy Performance Certificates for non-domestic buildings on construction and at the point of sale or rent.

and national care home organisations, the number of care homes visiting the website and using the tool was low. Since the launch of the website there have been 82 completed or partially completed assessments – 55% the simple model and 45% the detailed model. 50 reports have been generated.

- The main message was ‘save energy, save money’, with more detailed marketing saying energy efficiency action could improve resident health and well-being. BRE also emphasised that the scheme – and so REZEE – was government-funded source; Government endorsement was an important point for many care homes.
- Financial constraints, low energy costs (as a proportion of all outgoings) and challenges in making permanently occupied buildings available for improvement (especially large-scale insulation) were all cited as barriers to action. However, the main barrier to engagement and action was undoubtedly COVID-19, with very strict controls on site access, staffing challenges, and a general focus on other priorities.

Did REZEE demonstrate it would stimulate the supply chain for energy efficiency products and services aimed at SMEs?

- No evidence was found that REZEE stimulated the supply chain. BRE engaged with a small number of suppliers during the development of REZEE, and the tool provides potential suppliers on approved lists (there is no evidence this has led to any engagement between tool users and the supply chain), but does not recommend any.
- The pilot team accepted that SMEs would generally like to be recommended a reliable installer, but insisted that those they engaged with valued impartiality, did not want to have suppliers ‘sold’ to them, and for this reason (as well as liability considerations) BRE were careful not to endorse any particular funding option, supplier, installer or product.

Did REZEE demonstrate it would encourage lenders to provide finance for SME energy efficiency activity?

- REZEE includes a page of the latest funding and financing options available to care homes, including loans, grants and Government supported initiatives that would help save money via tax relief.
- However, REZEE did not involve partnering with / signposting specific finance providers, nor aim to address the issue of the simplification and standardisation of processes. BRE engaged with lenders to explore the question of aggregation, but reported feedback that bundling projects together for care homes operators is not a practical option for lenders, owing to likely differences in the credit rating.

To what extent does REZEE deliver on the attributes sought by the BASEE Competition?

- New: REZEE is based on pre-existing software, specifically the Simplified Building Energy Model (SBEM) methodology, but includes additional functionality such as guidance and signposting to suppliers, installers, funders and products.

- Additional: The project team stated that REZEE would not have been developed without the Department's funding as there would not have been sufficient in-house budget.
- Scalable: With no appetite found amongst care homes for paying for REZEE access, the project team explored ways the tool could generate income itself through ads, or suppliers and installers paying for leads, but steered away from that as they felt care home trust would be reduced. During the BASEE competition period, partly in response to the specific pandemic restrictions on the care home sector, BRE expanded the scope of the website and energy modelling tool to cover more types of non-domestic buildings. A sister site is being developed, targeted at all SME businesses, providing similar information to REZEE. Energy models are being created for a range of other sectors.
- With restrictions on commercialising SBEM, the focus is now on developing something to support modelling the potential impact of new policies / standards, as well as being an impartial, free-to-use tool for all businesses, supported by public funding. BRE have also been contacted by other BASEE pilots to discuss how the REZEE energy modelling tool could be integrated into their product, and have spoken to local authorities who are interested in incorporating the information pages and energy modelling tool into their websites to help support businesses in their area with standards compliance.

Considerate

fluttr is a bespoke energy management tool for the hospitality sector which focuses on incremental energy and cost savings by encouraging behavioural changes. It provides customers with easy access to half-hourly energy data, and energy saving behavioural change tips (tailored to the user's specific role within the business). Fluttr also uses industry-specific occupancy metrics and allows users to see energy consumption as a function of this metric (energy consumption per room night).

The rationale is that once user trust is built, behavioural changes can generate visible savings, through the International Performance Measurement and Verification Protocol (IPMVP), the 'Projects' section of fluttr is able to recommend more substantial measures (lighting, heating, BMS and catering), predict energy and cost savings and payback period, and provide a 'marketplace' in which SME hospitality businesses can find suitable suppliers and deliver projects.

fluttr relies on collecting either automatic meter reading or smart meter data as if customers are not able to connect their meter, then core elements of the app do not work, such as the energy management tab or the ability to calculate IPMVP.

How effective was fluttr in encouraging SMEs to engage and implement energy efficiency measures?

- The pilot team had hoped to test the app through the full user journey. However, citing BASEE programme time constraints and COVID-19 effects, the pilot focused on testing the useability of, and refining, fluttr, with 15 businesses. Some were already known to, and contacted directly by, Considerate, though sustainability networks were also useful. SMEs that signed up to test fluttr were motivated mainly by cost benefits, but tended to have a pre-existing desire to engage with sustainability, as well as the potential marketing benefit of that. Feedback on the ease of use of the app was good, albeit from a limited sample.
- Despite a reportedly high level of initial interest, lack of access to meter data, combined with distractions for hospitality businesses with pandemic recovery, meant low prioritisation of energy efficiency and a challenge to keep testers engaged.
- The pilot team had limited visibility of action taken (they can see numbers of tips implemented, but not specific actions); they have not been able to fully validate assumptions made regarding energy savings from the Projects section.

Did fluttr demonstrate it would stimulate the supply chain for energy efficiency products and services aimed at SMEs?

- Through three outreach activities (relationship building with Phase 1 suppliers, tradeshow and networking events, and cold contact via email and telephone), Considerate engaged with 78 suppliers capable of installing energy efficient retrofits. At the time of the final report, six had signed up. The pilot team reported that these have

fully vetted supply chains and additional levels of liability not present in smaller, more localised suppliers, so reducing risk to the SMEs. Some felt the work wasn't at a sufficient scale, many want to wait and see. The current suppliers give the pilot coverage of the UK, and a wide range of measures (increasing efficiency and costs on coordination), but there is an aim to bring in more specialist firms as the app develops.

- The pilot team sell fluttr as providing a pre-qualified list of potential leads or optimal contacts, with expressed readiness to act, in a market that is typically very fragmented and hard to engage. The pilot team also reported a key motivation for the signed-up suppliers as being involved in a project where sustainability is a leading theme. fluttr will take a 5% of any retrofit that transpires. And as the tool enables bundling of projects, it may potentially reduce the cost to the supply chain of SME energy efficiency action, and provide them with a range of benefits including economies of scale.
- However, there is not yet evidence of this happening in practice. No SME users were known to have progressed actions in the programme period, and therefore the pilot team have not been able to test the actual availability of those onboard to do measures. The main outstanding barrier to encouraging the supply chain to engage with SME energy efficiency action was reported to be the low numbers of SME jobs coming through the fluttr app during the BASEE programme period.

Did fluttr demonstrate it would encourage lenders to provide finance for SME energy efficiency activity?

- Considerate's original plan to address the fact that SMEs do not seek external finance was to build a multi-lender solution within the app to present a series of lending options. The rationale behind this was to provide SMEs with easy access (via an app), to several quotes from digital banks. Before this started, market research identified Funding Xchange as an integrable platform which already offered SMEs access to loan quotes from over 50 providers. fluttr therefore integrated with the Funding Xchange API, and the app now offers SMEs access to a set of quotes from over 50 SME loan providers.
- However, fluttr has not proved its ability to encourage SMEs to access finance for energy efficiency projects. While the lending solution is fully functional, there has been little SME engagement with the tool, or action progressed. The pilot team also argue that COVID-19 support packages, in addition to other environmentally focused grants supporting retrofitting, make it challenging to encourage take up.
- The pilot team hypothesise that the relatively strong creditworthiness of SMEs undertaking sustainability projects may lead to better credit terms being offered. However, no evidence is yet available to support this hypothesis, nor that fluttr will potentially improve economies of scale for lenders by reducing SME customer acquisition costs and provide a high volume of leads with some key data already provided, including multi-site projects.

To what extent does fluttr deliver on the attributes sought by the BASEE Competition?

- **New:** Fluttr represents a specific upgrade from an existing behavioural tool to include energy efficiency installation. The fluttr app was pre-existing, having been developed with support from the Department via the NDSEMIC competition. Considerate state that there is currently no other solution that integrates all fluttr services and processes into one.
- **Additional:** The pilot team felt that they wouldn't have been able to fund this project directly without BASEE. In addition, the networking opportunities afforded through BASEE (such as other pilot teams) have been fruitful. Having the Department backing was also seen as important.
- **Scalable:** Considerate are assuming a low net take-up rate due to COVID recovery and the low level of SMETs smart meter take-up in the SME market. A learning from the NDSEMIC project was that partnerships and networks provided a better route to the SME market than direct marketing. The pilot team have worked to identify partner organisations including LEPs, regional growth hubs, local authorities, Tourism Boards and sustainable hospitality networks. Their most promising industry partnership is reportedly with a leading UK energy broke; they describe this partnership as being ready to go when properly launching the app. And although they intend to initially focus on the hospitality industry, the pilot team note that the lessons learned, as well as the verified case studies demonstrating ROI and other benefits, will be replicable to other industries.
- **Considerate claim to have focused on building a minimum viable product to ensure this could be delivered in the BASEE timeframe, while managing development risk. They limited the number and variety of projects, as well as the range of lending and installation options. After the close of the BASEE project, they intend to expand on the minimum viable product by increasing the number of installation suppliers and the range of measures offered. As projects start being completed through fluttr, the savings made by projects which will then be used to create case studies and present these to other fluttr users: *"once you've got the innovation tested and ironed out the wrinkles...the way the sustainability agenda is moving forward, the rest will be coming quickly on the heels of the evangelists."***

Element Energy

Element Energy developed an online platform called E-CAT (Energy Comparison & Advice Tool). E-CAT uses SMEs' smart meter data and business characteristics to assess and provide tailored information on energy efficiency investments (including the associated savings and payback times) that are appropriate to the SME's specific context.

It also provides tailored comparative feedback on how SMEs' half-hourly energy usage compares to similar businesses, along with many other features to engage SMEs with their energy usage and support them to invest in energy efficiency. The tool provides links to suitable technology providers and a range of information and links around financing options.

Element Energy partnered with Drax Group and Octopus Energy to trial the platform.

How effective was E-CAT in encouraging SMEs to engage and implement energy efficiency measures?

- The pilot started with a pool of about 130 selected sites pre-COVID, identified mostly through Drax and Octopus Energy and some existing contacts to ensure diversity of profile. The pilot team did not look to engage with SMEs during the first lockdown, and upon recontacting sites four months after recruitment, they found many had disengaged. The number of businesses that completed the surveys / interacted with E-CAT is estimated at about 20. The pilot team did not think it would be worthwhile to run another recruitment round on the basis that it would be unlikely to be success in the midst of COVID-19 effects.
- Feedback from the most engaged users was that energy monitoring was the hook, then progression to tips, measures and finance. Some SMEs were also interested in the opportunity to benchmark consumption against similar businesses. All those that engaged found the tool quick and easy to use. Most respondents to the SME user survey felt E-CAT increased their awareness and understanding of energy usage in the business, provided appropriate recommendations, reliable cost and benefit estimates and would reduce the time and effort required to take energy efficiency action.
- The main two reasons for lack of engagement or drop-out were lack of time and a sense that SMEs didn't perceive much opportunity to reduce energy costs, particularly for micros.
- Responses to the SME survey provided a relatively positive picture of action and attribution. Most respondents reported that they have taken or are planning measures following use of E-CAT, and all said E-CAT and ensured this action was quicker and/or better than it would otherwise have been. The planned and taken measures included new catering equipment, LED lighting, solar PV and various heating behavioural measures. E-CAT has provision for users to mark recommended actions as 'done'.
- Whilst the pilot team agreed that a common barrier to SME investment in energy efficiency was a lack of funding, grants were the most popular option for external finance, with few willing to take on debt for energy efficiency measures. E-CAT offers

advice on other forms of financial aid, such as leasing and servicing contracts and tax relief to cover alternative types of financial support.

Did E-CAT demonstrate it would stimulate the supply chain for energy efficiency products and services aimed at SMEs?

- The pilot team stated that to keep E-CAT scalable, low-cost and efficient to operate, the tool does not provide much guidance on installers beyond signposting to general lists, aside from an LED company linked to Drax. There is the intention to license E-CAT through energy suppliers, with their own installer networks. The team did not want to focus attention on the due diligence of finding and vetting installers, maintaining that list and dealing with problems that might arise between SME and installer.
- While there is some evidence from customer survey findings of E-CAT pilot customers acting on energy efficiency and implementing measures, customer volumes are as yet low. And, with the exception of the LED lighting provider, the project does not have direct engagement with equipment suppliers or installers. There is therefore little evidence that the project has demonstrated to the supply chain that there is a sufficient SME market for energy efficiency, nor – with the exception of LED lighting – that it intends to do this. The E-CAT project did not seek to reduce the money and resource costs to the supply chain of SME energy efficiency action and did not seek to use aggregation. While it is possible that some economies of scale might arise for suppliers signposted from the platform, if high volumes of SME customers were to use the E-CAT platform in future, this would be incidental rather than intentional.
- The pilot team do see some high-level things E-CAT could do to support the process, such as setting up business case calculators for SME to more easily take them to the installer.

Did E-CAT demonstrate it would encourage lenders to provide finance for SME energy efficiency activity?

- The E-CAT platform signposts users to existing funding platforms which already compare and assess a range of lenders. Element's rationale in doing this was to avoid duplicating resources that already exist. Therefore, there is no evidence of the project working with lenders to encourage lending to SMEs or to improve lender confidence in predicted savings from measures installed by platform users.

To what extent does E-CAT deliver on the attributes sought by the BASEE Competition?

- New: The pilot team felt the combination of services provided in E-CAT was unique, though many are present in other tools within the BASEE competition. Although E-CAT builds on Element Energy's previous work on a NDSEMIC project, it differs in that it uses smart meter data.
- Additional: The pilot team felt the focus of E-CAT on SMEs was unlikely to have arisen without BASEE, and the Drax partnership came about through BASEE.

- Scalable: In the near term, the planned route to market is through licensing E-CAT to the energy suppliers which were partners on the project. In the longer term, the pilot team plan to leverage wider contacts and reputation within the energy sector to roll out E-CAT to other energy suppliers in the UK. Albeit the smart meter rollout may be a limiting factor on take up.

EnergyPro

The ESCO-in-a-box pilot delivered 2 main outputs:

- The launch of a new ESCO (energy services company) called Energy Solutions Oxfordshire (ESOx), helping local businesses to implement energy efficiency measures. Locally trusted experts provide increasingly detailed analysis of the opportunities at a customer's site, through the three stages of desktop diagnosis, feasibility and then implementation reports. The final report includes loan finance options through partner lenders DLL and Hitachi Capital.
- The development of ESCO-in-a-box itself, an 'operating system' for local one-stop-shops like ESOx that engage SMEs with energy efficiency and clean energy, and deliver projects for them. ESCO-in-a-box was launched via a new licensing company, EPConnect.

The pilot aimed to demonstrate that a local, trusted organisation can successfully deliver energy efficiency services to SMEs provided they are equipped with the right toolkit: standardised project development processes, vetted technology partners and contractors, guaranteed savings, and suitable finance.

ESCO-in-a-box is also designed to enable eventual aggregation of projects to create additional value beyond the core energy savings, such as participation in flexibility markets, or the creation of recognisable project communities for use in marketing activities.

How effective was ESOx in encouraging SMEs to engage and implement energy efficiency measures?

- From 120 leads, ESOx was able to create 34 feasibility assessment projects. However, at the financial commitment stage, progress through the customer journey slowed. During the grant period ESOx offered the feasibility and implementation reports at no cost to the customer, but post-BASEE will require businesses to pay for their assessment reports, either as part of the implementation fee, or as a standalone fee if they do not progress to the installation.
- Key learnings on engagement were to minimise mention of 'energy' (which can be associated with cold calling to sell tariffs), emphasise business sustainability, and being able to signpost financial support. The most effective channel for engaging with SMEs was reported to be networking through local business groups and the network of SMEs the project team was already connected to. A telemarketing campaign generated 52 leads but none had converted into a live project at the time of final evaluation. The pilot team also reported several businesses proactively contacting them about solar PV. ESOx are also targeting the landlords of business parks who have long-term sustainability or zero-carbon strategic objectives to pilot estate-wide changes.
- To build SME trust, ESOx vetted local contractors from its network to visit a customer's premises so they were able to produce accurate, tailored quotes at the draft implementation stage, with quotes from two to three different contractors for each lot or

energy efficiency measure. Any differences between the quotations and specifications are explained to the customer. After project completion, a year of measurement and evaluation is carried out, and ESOx will seek to rectify issues with any projects that achieve less than 95% of the predicted savings. ESOx will provide a weekly progress update call with customers during the implementation (installation management) phase and all detailed project arrangements and contractor coordination will be done without their further involvement.

- Loan options are presented as part of implementation report, based on quotations provided by partner lenders. Though the pilot found very few projects where the monthly energy efficiency savings fully cover the monthly loan repayments, with the team citing financial uncertainty as one of the main reasons projects are either being delayed. ESOx will also signpost customers to local and national grant programmes.
- As highlighted by the BASEE technical reviewer, ESOx provides a one stop shop comprising in depth solutions to many of the barriers highlighted by BASEE; yet it is very resource-intensive to deliver, and there is as yet little evidence that SMEs would be willing to meet the costs for this level of service. COVID-19, delays to SME provision of decisions and data have slowed progress through the pipeline and resulted in increased overhead costs to chase information.
- From the SME survey, the majority of respondents felt that ESOx had helped them to identify suitable measures, and obtain reliable benefits and costs of implementation. However, most respondents said they had not sought to use the service to identify installers or external finance.

Did ESOx demonstrate it would stimulate the supply chain for energy efficiency products and services aimed at SMEs?

- ESOx generates a pipeline of customers with projects ready to implement and manages project delivery and customer interactions. The ESCo model put forward by EPConnect aims to generate a pipeline of customers for accredited suppliers, with projects specified and ready to implement and with finance in place (where needed). 23 contractors had joined the ESOx framework, and 17 had provided quotations for SMEs.
- The pipeline of projects has been slow to develop, and one supplier commented that whilst the ESOx support and process was very helpful for them, a higher volume of business would be needed to demonstrate that there is a sufficient SME market or scope for aggregation.

Did ESOx demonstrate it would encourage lenders to provide finance for SME energy efficiency activity?

- EPConnect identified two loan finance providers willing to work with SMEs and fund projects with a minimum value of £10,000 to £40,000, based on the SME's creditworthiness.
- One uses already-approved suppliers, reducing SME choice but making for a more streamlined process so it has the advantage of being a quick streamlined process. The

other is more flexible. The latter has provided six quotes but hadn't been asked to deliver against any yet. The pilot is using the lenders' standard processes as much as possible to avoid imposing any costs and there hasn't been any reduction from market rates.

- The pilot team argue that the detailed measure generation and QA of installations process limits payback uncertainty for finance providers. One lender reported that the 'wrap around' support provided in the EPConnect model was important in ensuring that savings were realised, giving them more confidence as an investor. Though the pilot team acknowledged that some lenders are more concerned about the creditworthiness of the SMEs.

To what extent does ESOx deliver on the attributes sought by the BASEE Competition?

- **New:** The pilot team view is that the combination of support contained within the ESOx service (in depth work to generate recommendations, management of installers, integration of a finance offer) is new and sets it apart from existing SME energy efficiency support.
- **Scalable:** The product has been designed to be scalable, comprising a software platform and package of resources that, coupled with training and support, can be made available to other organisations via a licence agreement, enabling them to set up their own ESCO offering energy efficiency solutions to business customers. EPConnect's strategy has been to approach regional organisations that could operate ESCOs in the UK or other countries. Interview evidence from an intermediary organisation suggests that the ESCO model's emphasis on both decarbonisation and supply chain development is highly attractive to LEPs and local authorities. Two additional ESCO clients have been secured, a new ESCO in Greater Birmingham and Solihull, and a parallel project in Kenya using ESCO-in-a-box to develop an ESCO for the food and agriculture sector. There remain uncertainties about whether SMEs are willing to pay for the ESCO's high level of service.

Hoare Lea

Designed particularly for landlords and owners of multiple buildings, the project has developed standardised engineered solutions, contracts, specifications, and processes, complemented by online tools to minimise the costs of energy efficiency procurement. Outcomes include:

- Bespoke reports per business, describing the pathway to net zero.
- A virtual site survey (drawing on Hoare Lea's extensive experience in site assessment)
- Standardised design solutions, processes, and contracts to streamline procurement and investment.
- Energy efficiency product bundles, designed for use in the office and warehouse sectors. The use of measure bundles means a range of high and low ROI solutions that can be delivered immediately.
- Monitoring systems to quantify consumption and pre-and post-intervention metrics; building owners and users will be provided with more transparency into how their buildings are performing in practice, giving greater confidence in the outcome of their investments.

How effective was Hoare Lea's solution in encouraging SMEs to engage and implement energy efficiency measures?

- The platform was tested quite late in the overall BASEE lifecycle, limiting the evidence generated. Whilst the original target audience was offices and warehouses, the bundles and solutions could be applicable to many more building types.
- Overall, the pilot had only four office sites, all of which the team had pre-existing relationships with. One is now looking at the solar PV bundle, the other is awaiting quotes on the lighting one. They have tried to test the net zero tool with local authorities but found it hard to obtain feedback.
- The pilot team sought to make the gathering of technical data as easy and efficient as possible for SMEs. Towards the end of the project, they arrived at: (a) a short initial survey of easy questions, producing a net zero report; (b) a longer survey, requiring more effort from the SME, which would lead to a more customised report with options specific to the building and based on better quality data. Hoare Lea were not able to test this approach during the project lifetime.
- The pilot balanced accuracy with high transaction costs by developing the virtual site survey and standardising the contractual and specification documents. Bundled packages are designed for easier aggregation to be more attractive to financial institutions. They think there will be significant cost savings through the standardisation within the bundles but they haven't been able to demonstrate this yet.
- Although evidence from the pilot is limited, the team think that where SMEs are investing, this is for sustainability motivations rather than cost.

- The project was constrained by the COVID pandemic. Our target sectors were offices (closed during the pandemic) and warehouses (generally extremely busy during the pandemic), that there were limitations on access to buildings and to data, that staff from customers and project teams were furloughed and that SMEs were facing general uncertainty about their commercial and property needs. The pilot team argued that this affected their ability to develop and test the service in the way that we had anticipated.

Did Hoare Lea's solution demonstrate it would stimulate the supply chain for energy efficiency products and services aimed at SMEs?

- It is suggested that the tool include trusted suppliers, but it is not clear how suppliers are/will be selected and whether they are aware that they have been / will be listed in the tool; there was an assumption that local authority lists could be used.
- There was some engagement with the supply chain, although this was with associations rather than suppliers. There have been no installations but they have looked to get quotes for some projects – it was reported that it was difficult to get quotes from lighting suppliers as they were too busy. In theory the supply chain could be stimulated should the project generate a demand for supply chain services but there is no evidence to support this at present.
- The pilot team suggested that supply chain transaction costs could be reduced through provision of virtual survey data and aggregation, but there was no evidence of this within the BASEE competition period.
- The pilot team do not expect to have a financial relationship with the supplier / installer (though in the longer-term a percentage fee will be explored) because they don't think that the SME market can bear this additional transaction cost, but they do anticipate charging suppliers to be listed on the site.

Did Hoare Lea's solution demonstrate it would encourage lenders to provide finance for SME energy efficiency activity?

- The project does look to improve trust and confidence in the estimated savings via bespoke modelling, validation process and post-installation monitoring. However, the pilot team report that lenders they have engaged would secure their debt based on the SME's creditworthiness, not any savings that the project may or may not make.
- The virtual platform gathers data for lenders, and projects could be aggregated, but lenders must complete due diligence on each SME themselves for FCA regulation.
- Overall, the team engaged with 49 financial organisations over the course of the project and identified two lenders prepared to fund projects of at least £100,000 at 5%, cheaper than taking out a bank loan. No lending took place within the BASEE competition period.

To what extent does Hoare Lea's solution deliver on the attributes sought by the BASEE Competition?

- **New:** The pilot team stated that their toolkit is new and did not exist at the time of the BASEE application, but do also indicate that the toolkit brings together existing technology assets and builds on previous funded work funded by the Department (NDESMIC and SMETER).
- **Additional:** The pilot team felt that they would probably have developed elements of the tool without BASEE funding, but they would not have developed an integrated platform and would not have brought together the consortia to help with the process and provide insight. They also stated that they would not have looked at SMEs as this is not a naturally attractive market for them. Additionally, due to investing limited funding, any product development would have taken much longer.
- **Scalable:** The platform was built with the idea of white labelling it so different councils can have their own version, needing minimal support and technical expertise. The tool is reported as being used by Hoare Lea to provide services to an office landlord and landlords are one potential market. The tool is theoretically scalable but they are reliant upon further investment to enable it to be so. COVID-19, amongst other challenges, has meant little evidence of commercial viability.

QBots

QEnergy is a combination of smart energy contracts and a smart energy platform, ideally for SMEs with smart meters. The platform is a dashboard connected to the building; the business can open this and see all their energy consumption data, costs, and set targets on how to reduce usage and carbon through recommendations and tips based on patterns the dashboard picks up. They are also able to schedule site surveys through the dashboard, and QEnergy has a team of surveyors to deliver that and generate a high-level business case.

If a customer expresses interest, QEnergy links them up to partners / installers who will do a more detailed site survey and recommendations; aiming to provide the customer with three quotes if possible. As part of the contract, SMEs are offered financing options to make energy efficiency measures more affordable (through AskIF). Once they choose supplier and install, QEnergy monitors impacts.

Alongside the dashboard is an Energy Savers Club, and informal accreditation. Members are offered certain energy tariffs, free dashboard access (otherwise there is a monthly fee for use of the dashboard), and financing for measure installation. QEnergy is the dashboard.

How effective was QEnergy in encouraging SMEs to engage and implement energy efficiency measures?

- The pilot team reached out to 3000 sites, and have completed 20 site surveys, with 38 measures recommended – covering heat pumps, LED lighting, smart HVAC control, smart meters, solar and battery storage. 37 sites in total have provided QEnergy with a signed LOA and recent energy bill.
- The service was promoted through social media, email campaigns, blogs, websites, press releases, webinars, phone calls, and community groups. The pilot team's conclusion is that taking localised approaches with business groups, and referrals, are most effective; they aim to partner with trade bodies, business parks or businesses with multiple sites.
- The team cite COVID-19 as the principal barrier to engagement, particularly the closure of offices and a focus on 'business-critical' tasks. They also cited issues with low levels of smart meters, necessitating LOAs, which carried their own issues such as SME nervousness about signing them, and utilities being slow / obstructive in sharing data.
- Messaging focused on reducing energy costs, using green energy, and reducing carbon footprint, as well as the potential for green accreditation. The dashboard equates green outcomes to more relatable impacts – for example, CO2 saved is the equivalent of planting X number of trees. Marketing also emphasised that energy management services would deliver energy savings and green benefits without causing disruption to business. The team hope to be able to build case studies of action to engage other SMEs.
- As of the close of the BASEE funding period, there was an installation of one heat pump, one battery, four sets of smart controls, and one LED lighting project.

- The pilot team argue that COVID-19 reduced need financial products because of the associated grants and very low-cost loans, meaning a new product was not viable for AskIF for the majority of the pilot; pricing and loan terms will be informed by the cost and benefit realisation indicated by the Q-Energy dashboard.

Did QEnergy demonstrate it would stimulate the supply chain for energy efficiency products and services aimed at SMEs?

- As part of the project, QEnergy has established partnerships with installers for LEDs, BMS, commercial rooftop PV and battery storage. These were recruited via contacts from previous QEnergy projects and via networking with stakeholders in the energy industry. QEnergy has standardised partnership agreements and affiliate agreements for onboarding new supplier partners, with a digital signature system. The percentage of margin added or referral fee paid can be negotiated between Q Energy and individual suppliers.
- Suppliers interviewed in the evaluation had received a small number of leads, but the pilot had not proven a steady and significant pipeline. Aggregation opportunities were also limited.

Did QEnergy demonstrate it would encourage lenders to provide finance for SME energy efficiency activity?

- QEnergy's offer includes monitoring of energy use, including savings from measures installed. Though It is not clear how important this is to lenders, who base % rates etc. on SME creditworthiness. QEnergy have also incorporated a 'soft credit check' of customer SMEs into their service, to further reassure lenders and reduce perceptions of risk.
- QEnergy worked to standardise two finance options: (1) standard asset finance products for SME energy efficiency measures; (2) an ESCO option via a charitable finance organisation. Both organisations involved in developing the ESCO framework had non-commercial objectives, such as supporting projects felt to be of benefit to wider society. QEnergy is working with at least one provider that had not previously specialised in working with SMEs. As of the end of the BASEE period, £22,415.50 of funding had been provided.

To what extent does QEnergy deliver on the attributes sought by the BASEE Competition?

- New: The pilot was developed in response to the BASEE opportunity, but was similar to a project that Qbots had undertaken for the domestic market. The platform itself was not pre-existing, but the Qbots' application suggests that some specific components had already been developed e.g. an energy switching service.
- Additional: Qbots reported that the project would not have been taken forward without Government funding, as the funding enabled them to pay project partners. The pilot team also felt that – in the absence of BASEE support – they would have probably

focused on bigger organisations (easier to engage and more profitable to service). Being able to signpost SMEs to the Gov.UK BASEE pages also helped to build trust.

- Scalable: QEnergy aim to have over 1,300 clients by 2025, marketing their product in partnership with energy suppliers; they have already established conversations with several. These partnerships would provide economies of scale for the platform. However, the BASEE technical reviewer queried whether the system of site visits and audits would be scalable within the costs set out in the model.

Smarter Choices

The Smarter Choices pilot aimed to create a joined-up end-to-end service for SMEs, principally in the manufacturing sector, comprising:

- Support with identifying energy efficiency measures through a robust audit.
- Handholding throughout the process.
- Identifying and working with high-quality installation partners.
- Access to innovative ESCO-type financing not normally available to SMEs.
- Installation of monitoring and verification (M&V) equipment, and access to a platform to monitor energy savings.

In parallel, the pilot aimed to remove market barriers to the provision of financing by working with financiers to:

- Present high quality aggregated bundles of SME investment opportunities.
- Providing access to monitoring and verification of delivered energy savings, enabling greater certainty, and opening up opportunities for provision of guaranteed savings.

How effective was Smarter Choices in encouraging SMEs to engage and implement energy efficiency measures?

- Smarter Choices sought to overcome the barriers to finding and engaging SMEs by working through four partnership marketing routes (energy assessors; energy brokers; through ESCOs; and Oxford Innovation). These did not reach as many SMEs as anticipated, though SDS Energy in Northern Ireland brought a strong network of SMEs to the pilot. Some SMEs had already been approached with energy efficiency audit offers (sometimes free ERDF-funded support) and there was some scepticism about the quality of audits they had experienced or heard about.
- Given the slow recruitment rate through partner marketing activities, Smarter Choices explored digital advertising and direct telemarketing approaches but found it difficult to recruit SMEs through these routes. An ideal route would have been manufacturing sector trade associations but the team secured limited engagement – and no partnerships - from outreach efforts. In the SME survey the most valuable aspects of Smarter Choices to participant SMEs were the free audit and impartial advice on measures to take. The main rationale for action was reducing bills.
- By June 2021, 25 SMEs had undertaken audits and the pilot was seeing approximately a 50% conversion rate from these audits to the next stage of the process. Reasons for drop-off included COVID-related absences and delays in decisions, general resource and time barriers in SMEs, issues and delays from one of the pilot partners going into administration (causing some SME disengagement), and poor SME credit scores.
- Solar PV, lighting replacement and/or controls, insulation, energy monitoring and targeting and motor replacement were the top five recommended measures. Many of

the manufacturing SMEs were more interested in process than building measures as these account for the majority of their energy use and spend. Levels of interest in energy efficiency measures were limited; insulation and some heating measures are seen as complex, and lighting has often been implemented.

- As of the close of the BASEE funding period, five SMEs in Northern Ireland and six in England were at the stage of seeking quotes, though post-audit some had installed monitoring measures straight away. A majority of those responding to the SME survey said they had plans to implement recommended measures, with solar PV being most common. Most attributed the planned action to Smarter Choices, saying that the support had given them a clearer direction and impetus to start making changes.
- The intensive hand-holding model was felt to have been effective in keeping SMEs engaged, but was expensive (with implications for a future model), and difficult to resource when one of the pilot partners went into administration.

Did Smarter Choices demonstrate it would stimulate the supply chain for energy efficiency products and services aimed at SMEs?

- Working with equipment suppliers and intermediaries such as trade bodies was reported, in the final report, as having been found to be more difficult than anticipated. Two equipment suppliers are identified in the pilot final report as being actively engaged in potential project activity. One equipment supplier interviewee reported that they had seen strong sales growth, including to SMEs, during Covid. They noted that the pandemic had not constrained their business growth and may even have increased it. Smarter Choices identified that one reason for the low levels of engagement of equipment suppliers was that many such businesses were already very busy.
- A supply chain interviewee observed that the Smarter Choices platform could potentially provide a source of new leads, and did feel the platform has the potential to improve SME confidence and reduce risk.
- Energy assessors were sometimes found by the pilot team to lack the necessary skills to engage with SMEs. Technical deficiencies were also found to be a problem and the pilot team had to correct and rewrite a number of audit reports.

Did Smarter Choices demonstrate it would encourage lenders to provide finance for SME energy efficiency activity?

- Smarter Choices is intended to reduce transaction costs for ESCOs by avoiding the need for them to undertake detailed engagement with SMEs. The small pipeline of potential projects meant that only a few of the ESCOs the pilot team were hoping to work with were interested in pursuing the opportunity, with some deciding to drop out of the process mid-way.
- The pilot secured the engagement of three ESCOs, who provided quotes for ten potential SME projects. Smarter Choices tool is intended to improve lender confidence in predicted savings through reliable pre-installation financial modelling and post installation measurement and verification. The Smarter Choices tool includes a

standardised set of process and agreements designed to be acceptable to lenders so that they can be confident when dealing with proposals generated through the platform.

- At the time of final evaluation, the pilot was awaiting decisions from lenders on several potential project bundles, but none had confirmed their interest. None of the reviewed evidence provided any insight into whether the claimed lender benefits will be realised should these projects proceed.

To what extent does Smarter Choices deliver on the attributes sought by the BASEE Competition?

- **New:** The Smarter Choices platform includes a mix of pre-existing tools and platforms with new products developed with BASEE funding. The final output is a new integrated platform tool that provides an 'end to end' service. In addition to the platform, the outputs from the project include a range of new supply chain partnerships and relationships.
- **Additional:** The pilot team state that Smarter Choices would not exist in the absence of BASEE funding. If they had been unsuccessful in applying for Phase 2 funding, they would have continued to investigate something like this with partners, but BASEE provided funding and a framework through all the challenges.
- **Scalable:** The pilot team report that the focus immediately post-BASEE will be to close deals with the pipeline of already engaged SMEs. The tool allows for scalability, and the necessary partnerships to enable growth to appear to be in place. However, partners will be unable to invest the same amount of resource in identifying new SME leads as they did during BASEE. Moving forward there will be a focus on generating customer leads through partnerships with other bodies. There is also an interest in broadening the target audience beyond SMEs; the pilot team feel that there are opportunities to secure larger customers and thereby to build scale and momentum more rapidly than might be achieved through a continued focus on SMEs.

Appendix B: Matrix of pilots addressing time, resource, and expertise barriers

	arbnco	BRE	Considerate	Element Energy	Energy-Pro	Hoare Lea	Joule Assets	Qbots
Recommending energy efficiency actions or estimating energy, cost and payback calculations for these actions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Presenting energy consumption data in convenient ways that allowed identification of potential wastage, including benchmarking against similar businesses in some cases	Yes	No	Yes	Yes	No	No	Yes	Yes
Automating data input by accessing smart meter data	Yes	No	Yes	Yes	No	No	No	Yes
Providing simple or more refined recommendations, depending on the level of input that the user was willing and able to provide	No	Yes	No	Yes	No	Yes	No	No
Undertaking some form of onsite survey	(Yes) ⁵²	No	(Yes)	No	Yes	Yes	Yes	Yes
Preparing bespoke reports for each SME customer (for example, a 'net zero' report)	No	No	No	No	Yes	Yes	Yes	Yes
Supporting the provision of multiple contractor quotes	Yes ⁵³	No	No ⁵⁴	No	Yes	Yes	Yes	Yes
Providing a 'one-stop shop' from desktop diagnosis, feasibility reports and finance, through to identification and management of contractors, with monitoring of energy savings and handholding support as needed	No	No	No	No	Yes	Yes	Yes	No

⁵² Brackets indicate that surveys were coordinated by partners/suppliers.

⁵³ Not fully implemented at the time of this research. For example, for 'arbnco', quotes would be arranged via a project partner, Capitas Finance, if external finance was required. This mechanism had not yet been used in practice at the time of this research.

⁵⁴ 'Considerate's fluttr app signposted SMEs to vetted suppliers but SMEs were responsible for arranging quotes from these suppliers outside the app.

This publication is available from: www.gov.uk/government/publications/boosting-access-for-smes-to-energy-efficiency-basee-evaluation-of-the-programme

If you need a version of this document in a more accessible format, please email alt.formats@energysecurity.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.