Department for Energy Security & Net Zero

Green Home Finance Innovation Fund Evaluation

Process Evaluation

February 2023

Contents

Executive Summary

The Department for Energy Security and Net Zero (DESNZ), formerly known as the Department for Business, Energy and Industrial Strategy (BEIS), commissioned Technopolis in collaboration with IFF Research, and EREDA Consultants to conduct a process, impact and economic evaluation of the Green Home Finance Innovation Fund (GHFIF) programme. This is the first of three evaluation reports, delivered at the end of phase 1 of the evaluation. It focuses primarily on answering the process evaluation questions and providing an update on progress of the funded projects. The impact and economic evaluation elements of the study will be addressed in phases 2 and 3 of the evaluation (Summer 2022 and Spring 2023), after the GHFIF projects completed and sufficient time has passed to observe outcomes and impacts of the programme.

The evaluation draws upon data from interviews with multiple stakeholder groups, analysis of secondary data sources as well as the state of the market review led by EREDA Consultants.

Description of the programme

Part of the DESNZ (formerly BEIS) Energy Innovation Programme (2016-21), the GHFIF programme was designed as an open competition providing grants for consortia that would allow lenders to develop their own innovative green finance solutions targeting the retrofit market for homeowners.

As a novel type of intervention supporting the development and piloting of sustainable green home finance innovations (products, services and solutions), the programme also aimed to establish the evidence base on customer demand for green home finance products. This included marketing techniques, profiles of potential “green finance” customers, product design and the likely size and scope of the market.

The programme launched in Summer 2019 following a stakeholder information event at DESNZ. Feedback from the event was used to adjust some programme features such as target numbers of customers which the products should be offered to.

Effectiveness of programme delivery processes

Appropriateness of programme design

Traditionally, DESNZ Energy Innovation Programme (EIP) support businesses developing products, services, and business models in areas of nuclear, smart systems, built environment, industrial decarbonisation, CCUS, renewables and energy entrepreneurship. Direct grants for the banking sector to develop and roll out green finance products was a novel and innovative intervention designed as a relatively small-scale pilot, working in tandem with signalling potential future regulation. This type of push and pull policy interplay has the potential to result in accelerated introduction of new green home finance to the market.

The competition design was relatively open and loosely defined to induce innovative responses and consortia formation. While there are risks associated with this approach (lack of top-down specification of types of finance products to be developed by lenders), the programme attracted a variety of consortia with lenders taking on different roles within them – in one project the lender is the project lead, in another the lender is a formal partner and in the third lenders signed up at the later stage. The flexibility in adapting the programme design was reflected in changes to eligibility (based on feedback from the stakeholder information event) and a willingness to fund projects that were not led by lenders.

Evidence from stakeholder interviews suggests that the timing of the competition launch, the relatively short timeframe for submitting proposals and the deadline for the project completion, all negatively impacted the attractiveness of the programme to potential applicants. While much of this context was outside of the control of DESNZ policy / strategy leads, if the consultation on EPC (Energy Performance Certificate) disclosure and targets for lenders had launched prior to the GHFIF, it is likely that a higher proportion of lenders would have green finance higher up on their list of priorities.

Lenders stated that a government subsidy for the green debt products themselves would have been a useful complement to the innovation funding, making the programme significantly more attractive to them. Lenders suggested that this could have taken the form of preferential lending rates to banks for mortgages which had to be forwarded to customers or guarantees on potential mortgage defaults. Any of these additions would result in a significantly larger public intervention and could negatively influence value for money of such a programme. Whilst there are some examples of similar interventions internationally, any such funding would require a careful consideration of their legality and compliance with subsidy control rules.

Business engagement and communication

DESNZ made significant efforts to engage with the lenders and green finance experts, as well as broader sector stakeholders in the energy efficiency for home retrofit market. The programme was largely marketed as an intervention targeting green finance product development, a message which was well received by lenders and tech start-ups that could enable financial innovation.

Marketing and communication activities were effective in attracting significant number of Expressions of Interest (EoIs) but several factors detracted applicants from submitting full proposals:

- The initial requirement that the products would have to be rolled out to 1,000 customers by March 2021. While this was reduced to 300 following the stakeholder information event, not all those with initial interest were aware it had been changed or its ‘soft target’ nature.

- Relatively short timeframe for the development and deployment of the product, especially for solutions that had not had significant prior internal development within the applicant organisation.

- Application timeframe – both time of the year (Summer 2019) and six-week bidding period – while some of this appeared to be outside of control of DESNZ, in the future the time of the year and any changes within the targeted sector may need to be considered when launching a new programme.

Another contextual factor that may have contributed to the low number of proposals is that in 2019 the banking sector had other priorities and there was little capacity within lender organisations for taking on a bid-writing effort, especially as large banks are not well prepared for applying for innovation funding. This responsibility fell either on a product manager looking after multiple product areas, or sustainability policy teams which were not commonplace in 2019. We have nevertheless observed that green finance is gaining increased prioritisation within the banking sector, with a notable spike in green finance products being introduced to the market in 2021.

Application process

The Expression of Interest (EoI) stage was an effective process for identifying initial interest in the programme, which gave confidence to DESNZ. The length and format of the application form were not viewed as the main deterrents to submission of full proposals. However, as the banking sector is not accustomed to tendering for such opportunities, it may be worth considering whether a lighter touch application is appropriate.

The application process resulted in a low number (four) but sufficiently high quality and variety of proposed projects. These proposals and subsequently the selected projects (three) have the potential to meet the aims of signalling viability of products to the growing green home finance market, as well as to contribute towards communicating evidence of the value associated with specific home energy efficiency measures.

The formal appraisal process was effective in identifying high quality bids, although more time per project appraisal was dedicated than initially anticipated. The assessors were primarily energy efficiency experts, but the panel also included green finance expertise.

Due diligence, contracting and project delivery

DESNZ EIP is set up for funding innovation projects led by SMEs or large businesses in non-banking industries. Consequently, the standard grant agreement terms were not fully acceptable for banks. For example, the standard innovation contract requests intellectual property (IP) ownership by DESNZ in the case of unsuccessful project delivery. As the IP is mainly in form of changes to internal processes in the lender organisations, it is not practically possible for this to be owned by DESNZ. These issues were resolved through the involvement of legal teams but caused some delay.

Programme monitoring

Monitoring processes are effective in identifying risks relating to delivery and enable financing of project work. The projects considered the three-tiered monitoring approach (with monthly, quarterly, and annual reporting activities) to be acceptable, and the DESNZ programme and policy leads viewed the approach as fit for purpose.

The project leads noted that, in some instances, they would have preferred to be able to submit more detail about progress beyond the word limit. However, this was effectively mitigated by the use of annexes and milestone reports.

There were several issues with the monitoring processes. Firstly, the monitoring processes failed to flag an anticipated delay in projects which resulted in spend moving to the next financial year. Secondly, some of the project partners had not anticipated needing to complete the 'Reasonable Assurance Report', resulting in not being able to claim their initially planned full project cost. It is uncertain how this misunderstanding arose, as the requirement for the reasonable assurance report is listed in the grant terms and conditions.

All three tiers of monitoring processes are led by externally contracted monitoring officers (MOs). This allowed the MOs to be drawn from a larger pool of personnel, reduced the time required from internal DESNZ staff and provided an additional level of independence. The GHFIF MOs were relatively junior members of staff with relevant expertise in energy efficiency, but not in finance. This was not seen as problematic by DESNZ or the projects.

Dissemination of findings and policy learning

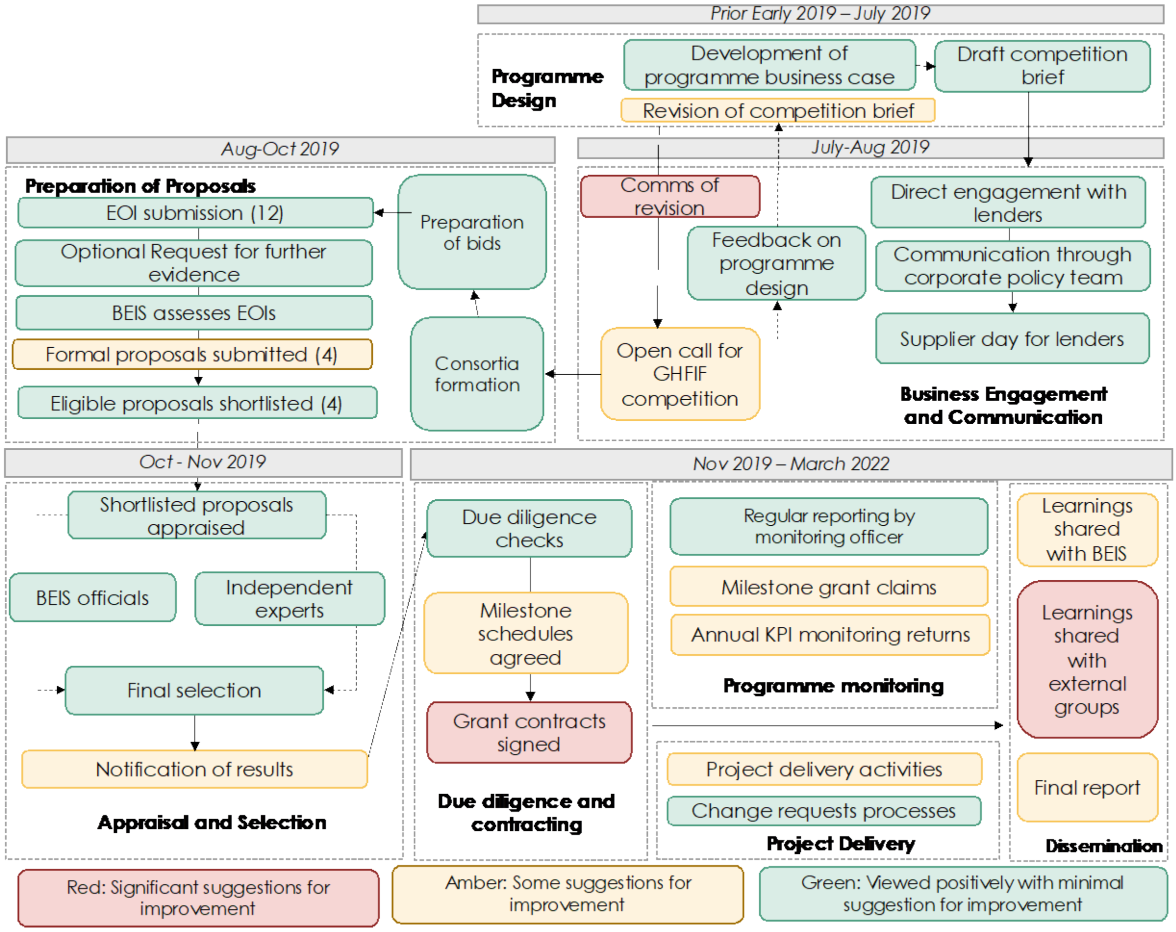
The dissemination of findings is predominantly handled through final project reports. Project teams are also leading their own communication initiatives to share findings through workshops and online dissemination. Competing lenders are likely to learn about new competitor products through intelligence updates by their strategy lending teams.

Both project teams and the DESNZ policy team would welcome more engagement at key project milestones to present overviews of project journeys and early findings. These are most appropriate on a project-by-project basis due to the competing nature of consortia.

Effectiveness of programme delivery processes summarised in a process map

This diagram below shows the process map of the GHFIF programme. It provides Red, Amber, Green (RAG) status for each delivery process. A green shading represents a process that were delivered effectively with minor suggestions for improvement. An Amber shading suggests there was mixed feedback through this evaluation process, with some suggestions for improvement. A red shading denotes there was feedback which suggested significant need or potential for improvements to the process.

Figure 1 GHFIF Process Map, including RAG Status



Source: Technopolis

1. Introduction

The Department for Energy Security and Net Zero (DESNZ), formerly the Department for Business, Energy and Industrial Strategy (BEIS) commissioned Technopolis in collaboration with IFF Research, and EREDA Consultants to conduct a process, impact and economic evaluation of the Green Home Finance Innovation Fund (GHFIF) programme. This report, delivered at the end of phase one, is the first of three evaluation reports. It focuses primarily on answering the process evaluation questions and providing a progress update on the funded projects. The impact and economic evaluation elements of the study will be addressed in phases 2 and 3 of the evaluation (Summer 2022 and Spring 2023), after all the GHFIF projects are complete. The report is structured as follows:

- Chapter 1 Introduction – provides an overview of the GHFIF programme aims and the purpose of this evaluation
- Chapter 2 Process Evaluation – provides an assessment of the programme design and delivery processes, following main areas of the process map
- Chapter 3 Next phases in the evaluation
- Annex A: Evaluation plan
- Annex B: State of the Market Review
- Annex C: Research instruments for Phase 1.

Programme aims and design

The GHFIF was launched in July 2019 to support the development and piloting of green home finance products marketed to consumers planning to finance home improvements with energy efficiency measures.[1]

The GHFIF programme was designed to support three separate but interlinked policy goals:

- The Clean Growth Strategy, which sets out a plan to upgrade as many homes as possible to Energy Performance Certificate (EPC) C[2], where cost-effective, affordable and practical, by 2035, and for all fuel-poor home to reach energy efficiency Band C by 2030, as far as reasonably practicable.

1 DESNZ, Green Home Finance Innovation Fund Competition Guidance Notes, August 2019
2 Energy Performance Certificate or EPC is a measurement of the energy efficiency of a property on an A-G scale, with A being the most efficient and G being least efficient.

- The Buildings Mission, specifically the ambitions to at least halve the energy use of new buildings by 2030 and to halve the cost of renovating existing buildings to a similar standard.

- The Green Finance Taskforce's recommendation for the financial sector to take a more active approach to stimulating innovation in green finance products and services.

- The programme has an allocated budget of just below £5m and was funded under the £505m broader DESNZ Energy Innovation Programme (EIP).

At the outset, the specific objectives of the GHFIF were[3]:

- For lenders to develop and pilot products with customers by the end of each project

- For lenders to create new brand value through the development and introduction of new 'green' products

- For lenders to develop relationships with the energy efficiency supply chain (focused on building relationships with energy efficiency service provider organisations and/or large energy efficiency service providers)

- To develop innovative green home finance products that have sustainable business models, that will incentivise energy efficiency retrofit, and which are supported and promoted effectively by the lender

- For lenders to develop the necessary IT infrastructure to make decisions about energy efficiency investments

- To establish the evidence base on customer demand for green home finance products, including marketing techniques, profiles of potential "green finance" customers, product design and the likely size and scope of the market

To contribute to the evidence base on what works for this type of financial product (exploring enablers and barriers) that can be used by industry actors to inform their product development and by DESNZ to further develop policy on green home finance.

The GHFIF programme was designed as an open competition providing grants for consortia that would allow lenders to develop their own innovative green finance solutions. It was designed to allow lenders to carry out the necessary internal exploration and learnings to develop the expertise, contacts, and infrastructure necessary to launch, pilot, and evaluate green home finance products and, ultimately, to make these products viable and sustainable without government support.

3 The objectives are based on the review of programme documentation and the interviews.

Table 1 Summary of projects funded by GHFIF

Project code	GHF101	GHF102	GHF103
Project title	Add to My Mortgage	Green Home Mortgage	VALUER
Lead organisation	Home Infrastructure Technology (HIT)	Lloyds Banking Group	Monmouthshire Building Society
Partner organisations	N/A	Energy Saving Trust	Sero Energy Rightmove Royal Institute of Chartered Surveyors (RICS)
High level summary of project aims	HIT aimed to build a platform that allows people to submit applications for additional borrowing on their existing mortgages through green vendors at point of sale of green home improvements.	Lloyds Banking Group aimed to create a green mortgage product and educational tools to encourage people to undertake energy efficiency retrofitting.	The VALUER project central component is about recognising the value of the benefits that energy efficient homes provide. They are tackling this through a number of areas, including mortgage affordability, surveyor tools and mortgage borrowing interest rates.

Purpose, aims and high-level questions for the evaluation

DESNZ commissioned a process, impact and economic evaluation of the GHFIF programme in order to:

- Determine how well the GHFIF programme objectives, as described in the Business Case, have been delivered
- Provide evidence to understand the barriers to delivery of benefits the programme may have failed to overcome and/or things that could have been done better in design and delivery of the programme to deliver benefits going forward
- Trace the different innovations that have taken place in the development and piloting of green home finance products and generate evidence on how the design and implementation of financial products has influenced the scale and nature of outcomes achieved
- Provide evidence of the outcomes and impacts achieved by the programme, to support both benefits reporting and the design of future green finance programmes.

Based on a preceding scoping study, DESNZ established a series of high-level evaluation questions that the evaluation will need to answer:

1. To what extent, and in what ways, have the activities and outputs of the three funded consortia translated into progress through the six outcome pathways and four impact pathways?[4]

2. To what extent, and in what ways, have the outcomes generated by the GHFIF programme translated into wider impacts on the green finance for energy efficiency industry?

3. Has the GHFIF programme and the projects supported been implemented as intended, and was their design and implementation appropriate to achieving the intended objectives?

4. To what extent have the projects and the programme overall demonstrated value for money?

Overview of the evaluation approach

The evaluation takes a mixed-method, theory-based approach; specifically, a Contribution Analysis, using Process Tracing to test the programme's contribution claims, with an economic Value for Money (VfM) analysis alongside this. The evaluation has three main interlinked components:

- **Process evaluation (this report)**: this method was selected to help determine the effectiveness and efficiency of DESNZ's management and delivery processes and identify any ways in which delivery processes may be improved

- **State of the Market review (the first output in Annex B):** Provides an analysis of the scope and features of current products provided by UK lenders that allow homeowners to invest in energy efficiency improvements for their home

- **Impact evaluation (phases 2 and 3 of the evaluation)**: this will assess the extent to which GHFIF has met its intended objectives, focusing on the short- and long-term impacts. Firstly, related to intermediate outcomes such as policy effects, market transformation and diffusion of green mortgages. Secondly, related to the ultimate impact on energy consumption, bills, CO_2e emissions and air quality caused by the retrofits funded by the scheme.

In phases 2 and 3, the impact evaluation will draw on the following data collection and analytical tools:

- **Value for Money (VfM) evaluation**: The VfM evaluation, delivered within the impact evaluation, will assess the extent to which government investment in GHFIF represents good value for money

[4] These outcome and impact pathways are described in the programme logic chain and theory of change found in Annex A: Evaluation Plan

- **Case studies:** While the CA and PT framework help to assess the impact of the programme at the overall level, project level case studies will explore specific causal mechanisms. They will also demonstrate how outcomes within each of the projects were realised in what context and for whom the projects worked well

- **Consumer research:** To understand the role of green finance products in driving energy efficiency/low-carbon heating upgrades amongst homeowners, we will capture homeowner perceptions and experiences through semi-structured qualitative interviews

- **Overall synthesis and Theory of Change (ToC) review**: A final stage overall assessment of the contribution made by the programme towards achieving intended impacts, over above external contributing factors, with a revised ToC narrative describing the revised contribution claims.

The evaluation draws upon data from interviews with multiple stakeholder groups and analysis of secondary data sources. Data collection and analysis is organised across three phases. This process evaluation report provides a summary of findings at the end of Phase 1 drawing on evidence collected through desk research, the State of the Market Review and stakeholder consultations.

Methods

This report draws on evidence collected through three main sources:

- Findings from the scoping phase (Jul-Aug 2021)

- Stakeholder interviews (Sept-Oct 2021)

- Programme data and documentation

The interview programme covered internal stakeholders involved in delivery processes, project leads, project partners, non-applicants, and external market experts, which led to a broad evidence base. As outlined in Table 2, in Phase 1 we exceeded the overall target number of stakeholders interviewed, although there were some stakeholder groups where the target was narrowly missed. The main reason for missing out on target interviews was non-response or refusal. In most cases, refusals were justified by a note that another stakeholder (sometimes within the same organisation) was better placed to reflect on effectiveness of programme delivery processes.

We interviewed 8 lenders through the state of the market review and a further four non-applicants exclusively for the process evaluation. The follow-up round of interviews planned for Spring 2022 will aim to recruit a greater number of unsuccessful applicants ahead of the Outcomes Report, as well as follow-up each of the other stakeholder groups.

Table 2 Consultation progress against targets

Stakeholder group	Target	Achieved	Deviation from target
GHFIF programme delivery team	6	4	(-2)
DESNZ GHFIF policy team	3	3	0
Programme SROs	2	1	(-1)
Competition winners	5	4	(-1)
Project consortia partners	4	3	(-1)
Nonapplicants/Unsuccessful applicants	6	12	6
Mortgage/EE/green finance market sector experts	3	4	1
Total no. of respondents	**29**	**31**	**2**

The Evaluation Plan (Annex A) provides a more detailed description of the overall methodology and the State of the Market Review is included as Annex B. The research in this report draws on evidence collected using research instruments detailed in Annex C.

Data limitations

While interviews and other sources listed above have generated a wealth of evidence, there are some gaps and limitations in evidence gathered at this interim stage, including:

- Interviewing only one of the Monitoring Officers – only one of the two MOs active in the programme agreed to take part in an interview. Nevertheless, we were able to revisit notes from our interview with a former MO involved in the programme. We also covered the effectiveness of monitoring processes with the three projects and internal stakeholders.

- Not capturing views of the only unsuccessful applicant – the selection process resulted in only one unsuccessful applicant and the representative of the organisation did not respond to our invitation (or follow-up emails) to contribute to the evaluation. We have, however, captured views of several non-applicants who submitted formal EoIs to the competition.

- The final report for GHF102 was not available during report writing.

Notwithstanding these limitations, the data gathered provides an extensive source of information that can be analysed to provide answers to the core questions of the process evaluation framework (See Annex A).

2. Process Evaluation Early Findings

This Section covers each of the process stages in turn and presents findings from Phase 1 research. Each of the sub-sections on findings provides a brief description of the processes before reflecting on their effectiveness in line with the process evaluation questions, drawing on indicators presented in the process evaluation framework.

Key issues for process evaluation

The analysis of the programme processes explored a range of assumptions and risks to delivery. The effectiveness of the processes is linked to the extent to which they are able to contain (or partially contain) these risks. These issues include:

- **Novel intervention:** GHFIF is a programme that was set up to provide direct grant funding for development and roll-out of new debt products to customers. This type of programme is first-of-its-kind and may generate learning to be considered for future interventions aiming to stimulate development of a new market. As such, it is paramount for the process evaluation to understand how the programme was delivered and put forward relevant lessons learned that can feed into future programming.

- **Low application levels:** Despite broad communication of the programme launch and relatively high levels of interest, only one in three expressions of interest submitted a full application to the GHFIF. The process evaluation therefore examines the effectiveness of the early delivery processes (business engagement and communication) to determine whether the reasons for low application levels were related to the clarity of information provided, timeframes for submission or other factors outside of the programme delivery teams' control. The evaluation inception meeting confirmed the need to explore this point in detail.

- **Size of the programme budget relative to the scale of the challenge:** The programme had an original budget of just below £5m - a relatively small scale of investment to incentivise UK banking sector and stimulate the green home finance market. The programme's importance therefore comes also as a force multiplier, working in tandem with current plans on regulation, such as the signal by DESNZ consultation on mandatory reporting of Energy performance data[5]. Therefore, the process evaluation also explored if this type of grant funding is designed to create genuine added value and signalling, or whether it is likely to be seen as a limited incentive for the transformation of the green lending market. The effects of the

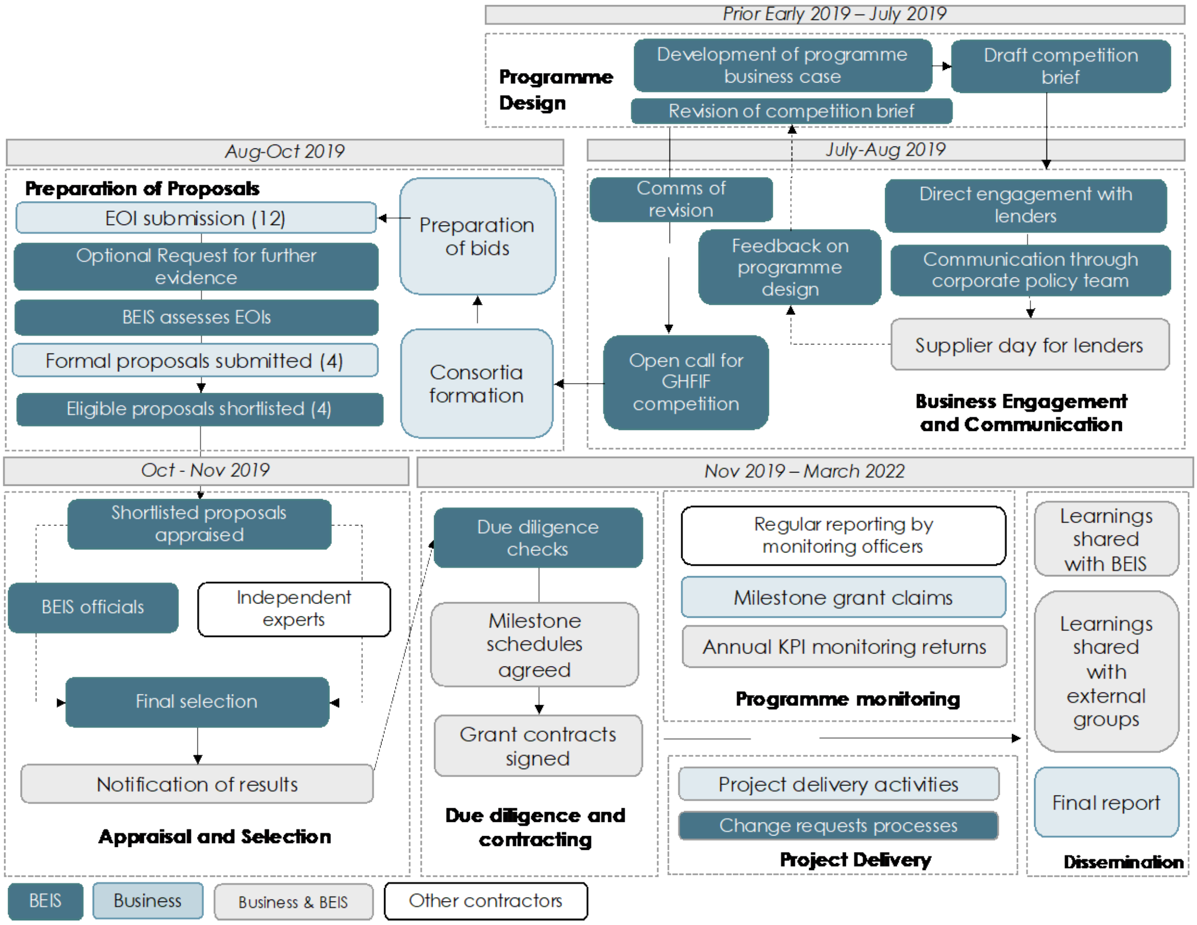
5 BEIS (2020) Improving Home Energy Performance through Lenders: Consultation on setting requirements for lenders to help householders improve the energy performance of their homes (https://www.gov.uk/government/consultations/improving-home-energy-performance-through-lenders)

programme and the contribution of different factors to its impact will be considered in future phases of the evaluation.

Process map

As outlined in Figure 2 below, GHFIF programme delivery involves six core process areas. Each of these core process areas and some of their sub-components are considered in the section below.

Figure 2: GHFIF programme process map



Source: Technopolis

Appropriateness of programme design

Summary Box 1 Key findings around appropriateness of programme design

1. Lenders are not traditional audience of the Energy Innovation Portfolio programmes – making GHFIF a novel and innovative small-scale pilot.

2. The programme was designed to work in tandem with signalled upcoming regulation.

3. The open, non-prescriptive approach attracted a variety of consortia with lenders taking on different roles.

4. The main design features which deterred lenders were the timing of programme launch, short timeframe for proposal development, and the project delivery timeframes along with the initial indicative customer target.

5. For lenders the collaboration and links to policymaking were a more attractive component of the programmes than innovation funding (unless it could have been used to subsidise the green home finance products).

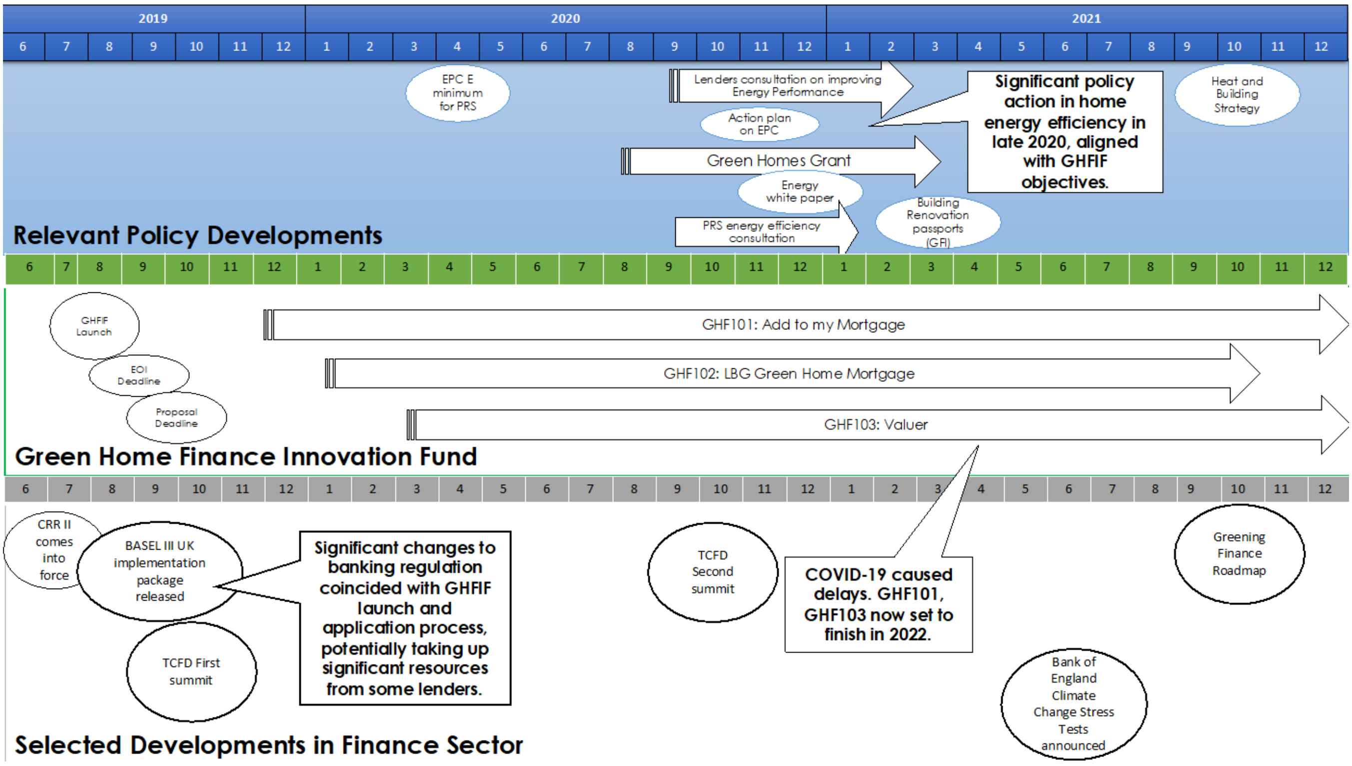
Appropriateness of programme design for government intervention to address the market failure of a lack of financial products in the green homes sector

The GHFIF was established following both the 2017 Clean Growth Strategy and the 2018 Green Finance Task Force report 'Accelerating Green Finance', particularly the key recommendation that the UK Government should stimulate the UK green mortgage market through short-term incentives. Additionally, stakeholder support was amassed through the 2017/18 "*Building a market for energy efficiency*" call for evidence, which indicated the Government's role in addressing the lack of incentives to accelerate the green finance market.

The GHFIF launch was timely, as by mid-2019, there were signs of the first green mortgages emerging in the market, but no clear signals to drive significant change and innovation in the sector. Findings from our state of the market review (See Annex B) showed a clear acceleration of green-related product launches (not limited to the UK) since 2018 - from 13 in 2018, to 17 in 2019/20 and then 21 by mid-2021. At the time of the design of the business case, only a few lenders offered green mortgage products. Several stakeholders pointed out that the two early movers in this space were Barclays and Ecology Building Society, noting that the Barclays product was limited to newly built homes rather than retrofits. Private finance for home energy efficiency retrofits was seen as a key gap which needed to be addressed to meet the 2050 net zero target.

The programme timeline presented below highlights that there have been several relevant policy developments in green home finance since the launch of the GHFIF programme (see top of the timeline in Figure 3 below). In addition, the timeline is consistent with findings from interviews with lenders, who described 2019 as a year marked by regulatory changes that affected the banking sector, which may have impacted GHFIF. These include adjustments to international reforms designed to mitigate risk within the banking sector (such as Basel III) and the new EU regulation on capital requirements (Capital Requirements Regulation: REGULATION (EU) No 575/2013).

Figure 3 GHFIF delivery timeline with key relevant policy and finance sector developments



Source: Technopolis

The GHFIF was launched with a budget just below £5m and the intention to fund 3-5 projects in a range of £800k to £1.8m each. The size of the programme was well-matched to the novel piloting of offering innovation funding to financial institutions. Capping projects at £1.8m each was sufficient to fund project delivery as applications bid for amounts that were well below the maximum available funding per project. This cap was possibly unnecessary, given that large enterprises can only claim 25% of project related cost. The cap would have prevented funding one or two large projects and therefore it was in line with the plan to fund 3-5 projects up to £5m.

In terms of the reasons for applying, the finance available does not appear to be the only driver for competition winners. While competition winners reported internal match funding would not have been spent on a similar project, without GHFIF, none of the applicants mentioned that innovation funding was the only motivation for taking part. This early finding points towards GHFIF providing a stimulus for additional funding.

Both applicants and non-applicants stated that the overall design of the programme as grants for innovation funding was not the most attractive approach. Instead they would have preferred some form of government support to subsidise the finance products or a de-risking mechanism. This would allow them to offer larger mortgages with additional borrowing amounts. The interviewed lenders also suggested that if Government-backed subsidised mortgages were part of the GHFIF offer, they would have expected a significantly higher number of lenders to submit full proposals, even within the relatively short application window. However, a large UK lender raised a counterpoint that they see it as their obligation to work towards net-zero by providing more attractive rates for green mortgages without blending them with subsidies. Though any such allowance at the time would have had to carefully negotiate the EU State Aid Rules, and in any following programme would have to consider if it would comply with the UK's post-Brexit subsidy controls.

The increased interest by lenders in green building finance needs to be considered in the context of the 2020/21 consultation on *"Improving Home Energy Performance through Lenders"*. This consultation included strong signals to incentivise finance for residential energy efficiency. For example, one proposal in the consultation was a mandatory target for all lenders to be achieving an average of EPC C across their mortgage book by 2030. Our interviews with lenders, as well as evidence from the State of The Market Review, suggested that this consultation was a strong factor driving decisions to introduce new green home finance products. The contribution of each of these factors will form the basis for phases 2 and 3 of the evaluation. The effectiveness of the communication is considered separately below.

Appropriateness of programme design to attract the right applicants (programme/application requirements)

The programme's relatively open definition also resulted in a broad variety of projects; each tackling a separate challenge of the green home finance eco-system. Across the consortia we see wide range of organisations, including starts-ups, non-for-profits, membership organisations, large banks and a home builder. This is shown in the table below. Therefore, the programme has been effective in attracting a mix of consortia and innovative propositions to address the original aims of the GHFIF.

Table 3 Project consortia overview

Project	Consortia Members	High level overview of project
GHF101: Add to my Mortgage	Home Infrastructure Technology Ltd (HIT)	The development of a platform that will allow people to submit an additional borrowing application attached to their mortgage, through a home energy efficiency improvement vendor at point of sale.
GHF102: Green Home Mortgage	Lloyds Banking Group (LBG) Energy Saving Trust	The development of a mortgage cashback programme which rewards energy efficiency improvements, alongside the development of educational tools
GHF103: VALUER	Sero Energy Monmouthshire Building Society Royal Institute of Charted Surveyors (RICS) Rightmove	Several workstreams that aim to integrate energy efficiency into the valuing process of properties through surveyor tools, updated mortgage affordability calculator and lower interest rates on mortgage products.

Applications at the Expression of Interest (EoI) stage similarly reflect a broad range in types of lead organisations and projects. Four full stage applications were made, with three receiving funding. This was in line with DESNZ expectations of funding three to five projects before launching the call. However, since none of the funded projects required the maximum available funding (£1.8m each) and two went below the expected minimum of £800k, this resulted in significant underspend (the extent to which this resulted in higher value for money (VfM) will be explored in future phases of the evaluation). Thus, the programme could have accommodated additional projects if there had been applications of sufficient quality (assuming this would not have led to resource constraints in programme delivery/programme monitoring at DESNZ). This was also specified as a possibility in the Q&A issued by DESNZ after the supplier day / stakeholder information event as "this [more funded projects] will depend on the quality of proposals, and the amount of funding requested by bidders". One DESNZ stakeholder stated that if they had 10 high-quality applications, it would have likely resulted in a greater number of smaller projects, indicating that there was further flexibility built into the programme design.

The lenders interviewed as part of this evaluation stated three main reasons for their hesitancy to apply to the GHFIF programme:

1. The short application window of only eight weeks from issuing of the competition guidance until the full application deadline.
2. DESNZ' initial communication about the request for projects to sell ~1,000 GHFIF products by the end of the pilot scheme.
3. The short project length with an end date in March 2021.

Regarding the short programme delivery window, DESNZ stakeholders indicated that due to spending conditions around the EIP the deadline had to be March 2021. However, due to the exceptional nature of the COVID pandemic, this deadline was reconsidered on a case by case basis and extended where appropriate.

At the pre-tender stakeholder information event, a presentation stated a target that proposals should include "Details of the Green Home Finance pilots launched for 6 months covering **approx. 1,000 homes per product**". Later, the target was not included in the final competition and application guidance. Nevertheless, it became clear in interviews that the target was a deterring factor that led some interested stakeholders to decide not to proceed with an application. Around 20 potential applicants attended the stakeholder information event. Out of these, only 4 applied. This lends some support to interview findings that the target presented at the stakeholder information event may have deterred some of the organisations from bidding.

Based on the stakeholder interviews, there is also some indication that different sized lenders might require different types of support. Interviews suggested that large lenders are only likely to apply to these types of programmes if it aligns with existing internal development activities. On the other hand, for small lenders the size, timing, and the target requirements of the GHFIF programme were more important factors. Traditional lenders, both large and small, are working with established IT systems that may require investment to reflect new data needs related to green finance products. A clear example of this is accessing and linking up-to-date EPC data for homes subject to mortgage applications.

Business engagement and communication

Summary Box 2: Key findings around the business engagement and communication process

1. Programme was largely marketed as support for lenders to develop and roll out green home finance products.
2. DESNZ made significant effort to engage lenders and broader EE home retrofit market.
3. Direct approach to lenders was seen as useful as they are not actively seeking innovation funding.

4. Communication activities were effective in attracting significant number of EoIs, though several features deterred applicants from submitting full stage applications.
5. Potential applicants were not aware that the initial indicative target of 1,000 customers uptake the lending product was revised for the final programme criteria.
6. Short application and project delivery timeframes deterred several applicants.
7. Lenders had limited capacity for engagement with DESNZ and bid-writing.

Breadth of communication activity

The programme applied a tried and tested process of DESNZ EIP programmes, rather than a bespoke communication strategy for GHFIF. The process began with inviting a broad set of relevant parties to a stakeholder information event, followed by an EoI stage and then a call for proposals stage.

Prior to the stakeholder information event, DESNZ teams worked on identifying the broad range of stakeholders and had informal bilateral engagement with some of the early movers developing green finance products. This helped to scope out the resource requirements for developing and launching a potential product. Feedback from lenders showed that after the GHFIF was launched, DESNZ continued to have good business engagement on the green home finance market topic. In particular, the recent Lenders Consultation was highlighted as a highly relevant channel for the sector to submit their views on the topic.

Business engagement and communication activities commenced with a six-week informal launch starting in July 2019. The soft launch consisted of discussions with individual lenders, the council of mortgage lenders and the FCA. The call was disseminated through the corporate commercial policy team at DESNZ with direct links to the banking sector.

On July 15th 2019, the DESNZ policy team organised a stakeholder information event and invited a range of different stakeholder groups. The groups targeted representatives from the whole finance and energy efficiency sector. The invitees covered the relevant groups including lenders, energy suppliers, energy assessors, DNOs, and suppliers, a full breakdown of which is shown in Table 4 below.

Table 4 Invitees to supplier day by group

Invitee group	Number of invitees	Invitee group	Number of invitees
Lenders	45	Insurance brokers	6
DNOs/GDN Representatives	17	Advisory consultants	4
Local supply applicants	16	Estate agents	3
Managing agents and installers	13	Think tanks	3
Energy suppliers	13	Guarantee agencies	3
Manufactures	12	Researchers	2
Trade bodies	9	NGOS	1
Energy assessors and certifiers	9	Data analytics	1
Local authorities	7	Membership networks	1

During the stakeholder information event, DESNZ collected feedback on competition design which was used for further refinement of eligibility criteria and guidance for applicants. The total number of participants who attended was not available, although records from the sign-in document listed at least 20 organisations in attendance. This included some of the major lenders and building societies, as well as three suppliers.

Effectiveness of engagement and clarity of communications

DESNZ made information available on the .gov.uk website[6]. However, interviews with lenders suggest that these organisations do not actively seek information on innovation funding on a regular basis. The additional measures, such as direct invitations to the stakeholder information event and the direct engagement with the

1. [6] https://www.gov.uk/guidance/green-home-finance-innovation-fund-competition

lenders, mitigated this to some extent. The number of invitations and the prior soft engagement with stakeholders was comprehensive and the roles of people approached fit the purpose of the GHFIF. Nevertheless, as far as can be determined from existing records, attendance at the stakeholder information event did not reflect as broad a range of organisations as the list of invitations. It was not possible to identify whether this was because of the quality of the invitation or other contextual factors influencing ability of the invitees to attend.

Overall DESNZ stakeholders considered the communication to be clear, but acknowledged that a more in-depth understanding of the internal decision-making processes of potential applicants, such as banks, would have been beneficial. This includes underestimating the length of time lenders would need to prepare a bid. In particular considering how long larger lenders would need to complete internal approval and compliance procedure to propose a new product as part of the bid. They further acknowledged that some reporting requirements and expectations on learning should have been clearer from the outset. Another point raised by DESNZ stakeholders was that sequencing GHFIF's launch after the lenders consultation around EPC targets could have increased the level of lender motivation to engage with the programme.

Competition winners and their partners were divided regarding the communication activities and engagement. Some expressed overall positive views, but a small number felt that there were uncertainties regarding some of the reporting and eligibility criteria. These concerned the proposed 1,000 customer target, to what extent newbuilds were in scope, as well as the potential requirement to disclose the EPC rating of their mortgage portfolio. This indicates that the understanding for the rationale and requirements of the GHFIF was not fully clear to some of the applicants. As a positive remark, one competition winner highlighted that the direct communication with DESNZ staff was mutually beneficial for both DESNZ and themselves, from application and even beyond the end date of the project. This is explored further in the section on dissemination activities.

> *I don't think there were problems with communications. It was quite clear what they [DESNZ] were looking for.*
>
> Project Lead

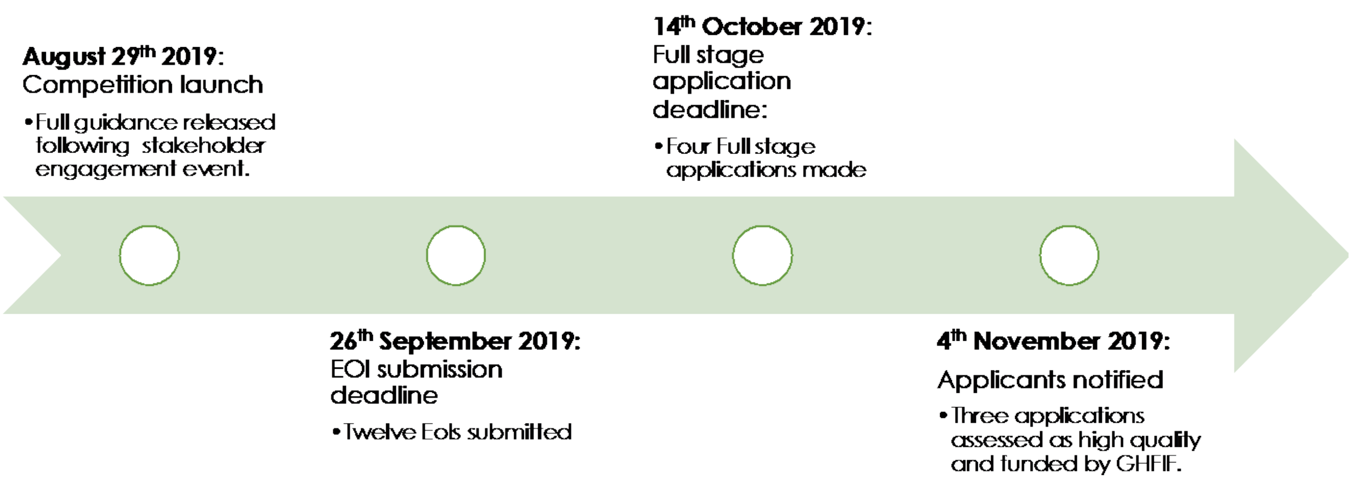
Preparation of proposals / Application process

Summary Box 3: Key findings around the proposal development and application Phase

1. The Expression of Interest (EoI) stage was an effective process for identifying initial demand. 2.The Q&A and direct communication with DESNZ was seen as valuable by projects. 3. The format and length of application was not off-putting to applicants and the level of detail in applications was helpful for assessors. 4. The formal appraisal process was effective in identifying high quality bids, although more time per project appraisal was dedicated than anticipated. 5.The assessors were primarily energy efficiency experts, but the panel also included finance expertise.

This section covers from the stakeholder information events to the submission of application submission as summarised in Figure 4, considering its effectiveness and efficiency.

Figure 4 GHFIF Application timeline



Source: Technopolis

Expressions of Interest (EoI)

The inclusion of this stage was viewed positively by DESNZ stakeholders and neutrally by project leads. In terms of effort, it was seen as a low burden by both groups, as it only asked for some basic information from interested project leads and required minimal assessment from DESNZ. The EOI simply included the organisation name; proposed project title; and the intention to submit a proposal.

Internal stakeholders from DESNZ recognised two key benefits of the EoI process:

- It enabled them to understand that there was a sufficient level of market interest with 12 EoIs. If there was not an EoI stage then DESNZ may have misdiagnosed the issue as a lack of market interest, as opposed to a problem with the application process which led to a lack of full applications.

- It facilitated communication between DESNZ and potential applicants. This was important because it led to a project applying that was on the edge of meeting the eligibility requirements but had an innovative project idea. In this sense, the EoI process acted as a 'filtering in' rather than a 'filtering out' mechanism.

> *The EoIs definitely showed that the time constraints did have an impact. That was one positive of the EoI phase.*
>
> DESNZ Policy Lead

The competition applicants agreed that the communication the EoI stage facilitated with DESNZ was helpful in developing their full applications. No issues were noted with the timing or costs incurred by the EoI stage. Non-applicants also did not describe the EoI stage as an issue for them.

Full Applications

Application form

Applications consisted of detailed project plans which included product development activities, internal credit committee approvals, evidence of homeowner engagement/recruitment, plans for monitoring the impacts of pilot participants and reporting. Applicants were also required to provide a fixed price budget for project activities. DESNZ innovation grant funding could cover between 25-60% of project costs depending on the applicant project. All applicants can submit 25% of project costs for their bid. This is topped up by a further 20% of project costs for applicants which are a small enterprise and by 10% for medium enterprises. If applicants meet the criteria for effective collaboration and extensive dissemination, they can secure a DESNZ grant funding to cover a further 15% of their project costs.

Project leads and consortium partners found that, although it was relatively long, the information requested in the application form was reasonable given the public funding concerned. It was not viewed as excessive or disproportionate to the value of funding by any interviewees. The amounts of time reportedly spent completing the form varied between one week and several weeks. In all cases, multiple members of the team collaborated to complete the form, and the information required was available to the applicants. We did not find that any specific section of the form should be streamlined or removed. From the perspective of DESNZ interviewees, the level of detail on the forms was viewed as helpful, particularly the detail on project management and timescales/milestones, which enabled them to form a sound view of the feasibility of the project plans. From the assessor viewpoint, the forms provided a sufficient level of information needed to complete their assessment rigorously.

Quality of applications

Of the four full applications submitted, three were deemed of high quality and converted into projects. The fourth application failed to score highly across the assessment criteria. While assessors scored the proposals high enough to receive funding, when reflecting back on the set of projects, they noted that the concepts behind the new products were not complex or highly innovative. Rather, the innovation came more from the diversity of consortia types and the ancillary outputs surrounding the green finance products being developed (such as the tools developed by the Energy Saving Trust or the revision of the RICS Red Book). However, it was recognised that this was taking place in 2019, when the green home finance market was relatively underdeveloped compared to its current state.

> *They were all scoring midrange for the innovation area…one of the driving forces of the original proposal was that you were trying to drive innovation into market by building new networks, …. I'm not saying anything out of turn. I just think that that probably reflects the state of the market at the time.*
>
> Application Assessor

The projects were viewed as largely building on existing ideas rather than creating truly novel products. However, it was recognised by several DESNZ Stakeholders and Programme support contractors that the online finance platform proposed by GHF101 was genuinely novel. Another internal stakeholder highlighted that they believed VALUER was developing innovative tools and services that will be first of their kind. Another interviewee believed that the involvement of Rightmove and RICs was potentially highly significant, given their national reach and position in the real-estate sector.

A further issue noted by several internal stakeholders was that all the applications related to mortgage products whereas the competition was open to a much wider range of potential financial products. Several interviewees believed that the lack of innovative and wide-ranging proposals was related to the relatively short timescales of the application window, which is discussed further below.

Consortia types

The four full applications encompassed a mix of consortia types, with diverse lead organisations, partnership models and partner types:

GHF101 was a single applicant bid, led by a financial technology start-up (HIT), with no formal partners. They have worked with a wide range of retail lenders and green vendors as part of the process of establishing their platform but no formal partner was listed on the application form.

GHF102 was led by a large retail lender (LBG) with a formal partnership with an independent, not-for-profit organisation: the Energy Saving Trust.

GHF103 is a collaboration between a retail-lender (Monmouthshire Building Society), an energy efficiency company (Sero Energy), the Royal Institution of Chartered Surveyors (RICS) and the property website Rightmove. Monmouthshire Building Society are formally the lead organisation, though in practice, Sero Energy are responsible for project management as well as reporting and liaising with DESNZ).

GHF104 (unsuccessful application) was led by a retail-lender with a partnership with a smart energy trading network.

This variety of consortia types suggests that the involvement of organisations other than retail lenders was a critical reason for the programme being able to fund three projects. Firstly, Sero Energy's involvement was a driving force for GHF103, according to project partner. Secondly limiting leadership of bids to retail-lenders would have excluded GH101, led by a tech start up. This would have significantly reduced funds expended, as GH101 requested over half the funds approved (circa £1 million).

Amount of time to submit full applications

The period from the issuing of the competition guidance until the full application deadline was just over six weeks. Before this, potential applicants had been made aware of the competition, as detailed above in the section on communication and engagement. The majority of interviewees viewed the six-week window as insufficient for producing novel partnerships and innovative proposals. It was raised as an issue by non-applicant interviewees and was recognised by DESNZ staff close to the programme. The assessor interviewee also believed it was the main reason why the proposals were not more innovative.

Assessment and selection process

Assessment criteria

From 14th October until 1st November 2019, DESNZ officials and independent assessors / sector experts assessed the eligible applications. Eligible proposals were assessed based on the criteria outlined Table 5. Interviewees involved with the process did not raise any issues with the nature of the assessment criteria. The criteria and weighting are in line with a pilot programme aiming to support innovative proposals. However, a DESNZ policy team member reported that they believed the final reporting and dissemination elements could have been given more prominence in the application and assessment process. One possible way to integrate this suggestion would be to weight the learning element higher than 5%.

Table 5: Assessment criteria

Criteria	Weighting
Addressing the competition: credibility of chosen approach, degree of innovation of the proposal, saleability of financial product and quality and credibility of the plan	45%
Deliverability: appropriateness and credibility of work plan, milestones and deliverables, appropriateness of project management structure and roles and detailed understanding of project risks	25%
Dissemination: plan to disseminate project learnings	5%
Skills and expertise: track record of project delivery and capacity and experience of proposed team	10%
Costs: Details of project costing including justification and leverage of other funding sources	15%

Selection of assessors

The bids were assessed and scored by four assessors. Two assessors were from DESNZ, including a Corporate Finance Advisor with over a decade of experience. In addition, two assessors from Ricardo and Mott MacDonald were provided through the ThirdS delivery contract. The assessor from Ricardo specialised in economic modelling, impact assessment and energy technologies, particularly around energy efficiency and low carbon development The assessor from Mott MacDonald brought international expertise in project delivery and Infrastructure including commercial, financial and business advisory. The mix of experience and backgrounds provided a good balance of relevant expertise. The assessors were viewed as well-qualified by a DESNZ interviewee who was closely involved in the assessment process.

Effectiveness of assessment

A tried and tested standard process within DESNZ EIP was applied. The process started with an assessor training that highlighted the timescales and assessment criteria. Assessors had two and a half weeks to review and score the applications before attending a moderation panel.

Each application received scores from three assessors. A moderation panel was used to ensure consistency and to determine overall combined application scores. The panel provided a ranked list to inform recommendations for approval to the project board. The structure of the assessment was viewed positively by interviewees as an effective process for identifying quality proposals. No competition winners or non-applicants raised any issues with the assessment procedure. The external and DESNZ assessors also viewed the timescales and structure of the assessment as sufficient to review the information. However, the effectiveness of the processes is difficult to judge because of the small number of full applications received. Several interviewees, including a DESNZ policy team member, and an external assessor, raised concerns that had timescales may have been too tight, had a significantly higher number of full applications been submitted.

Feedback to applicants

DESNZ officials approved the final selection of three applications and notified applicants of the results on the same day that the moderation panel took place, indicating a very efficient process. Competition winners and unsuccessful applicants were notified of results at the same time, at which point, unsuccessful applicants were given feedback. The outcome and feedback were communicated through email and included a breakdown of the score, and provided a summary of the assessor's comments for each assessment criteria. The feedback to applicants was viewed neutrally by interviewees. The only unsuccessful applicant to the competition did not respond to our interview request, so we do not have direct insight into how the feedback to unsuccessful applicants was perceived and whether it was useful for developing their concept further.

Due diligence, contracting and project delivery

Summary Box 4: Key findings around the proposal development and application phase

1. Banks do not find the standard grant offer terms & conditions entirely acceptable without amendments.

2. The contracting process was generally considered to be smooth with minor delays related to the above exception.

Following the notification of a successful application, DESNZ began the standard contracting procedures employed within the EIP. This included match funding assurances, the signature of a collaboration agreement (if required), the issue of a Grant Offer Letter and a Grant Agreement. The Grant Offer Letter contained information about the grantee's company, any partners, the funding amount and the funded period. Due diligence checks were carried out, which included match funding confirmation, financial viability checks and undertaking in difficulty tests. Overall, interviewees were satisfied that these processes were effective. There was, however, one issue raised by one of the competition winners around the contracting. They reported that there were several clauses that did not appear relevant or applicable to the particularities of the project.

They reported:

> *I think a standard government contract was used. Whereas a lot of it just wasn't relevant for a project like ours and wasn't stuff we were willing to sign up to.*
>
> Project Lead

Specifically, they referred to a caveat in the terms and conditions that if they did not deliver in line with DESNZ expectations then DESNZ could take ownership of their proposition. The project lead believed that this could not apply in practice because it would not be possible for DESNZ to own a process in their mortgage book. The issues were eventually resolved, but the project lead reported spending a significant amount of time reaching an agreement, with involvement of legal teams.

Programme monitoring

Summary Box 5: Key findings around the proposal development and application Phase

1. Monitoring was appropriate for the scope of the programme, though projects prefer more feedback on monitoring outputs. 2. There was a notable expansion of monitoring during the programme life, including quarterly reporting and additional catchups – seen as proportionate (though two projects found this intensive but not disproportionately burdensome). 3. MOs are external contractors who had energy efficiency expertise but lacked expertise in finance. 4, Project partners were not aware of requirement to complete reasonable assurance report.

The monitoring of GHFIF projects at the outset of the programme has three distinctive but interlinked processes, which were undertaken at different frequencies:

- **Monthly monitoring** consists of a progress phone call or virtual meeting and logging progress in a progress tracker on DESNZ SharePoint. This serves for the purpose of early identification of risks, potential delays and issues in project delivery.

- **Quarterly monitoring** is a process applied commonly across DESNZ EIP programmes and centres around the formal submission of a quarterly report outlining progress against milestones, achievements, project spend against forecast and reasons for spend variance for milestones claimed this quarter and project risks and mitigation. Quarterly reports allowed for the inclusion of annexes relating to major milestones.

- **Annual KPI monitoring** is a standardised data collection process that takes place annually that collects high level progress against 13 KPIs of the whole portfolio of over 400 EIP projects. The data collection is initiated and driven by DESNZ Programme leads. The process is supported by Monitoring Officers (MOs) who complete information on project progress and basic project information with data on outputs, outcomes and impacts is collected directly from project leads. The KPIs collected are:

- KPI 3 - Number (and size) of Organisations supported to deliver project (Lead Partner and Other Organisations as named on grant offer).

- KPI 4 - Number of active Business Relationships and Collaborations supported (Formal and Informal, Overall and New).

- KPI 5 - Advancement of Low Carbon Solutions - Technology Readiness Levels.

- KPI 6i - Initial Financial Leverage from private sector to deliver project.

- KPI 6ii - Follow-on Funding to take project further forward.

- KPI 7i - A. Reduced Unit Cost of energy- LCOE. B. Potential Reduced Unit Cost up to 2032.

- KPI 7ii - A. Increased Energy Efficiency/ Reduced Energy Demand, B. Potential Increased Energy Efficiency up to 2032.

- KPI 7iii - A. Increased energy system flexibility, B. Potential Increased Energy System Flexibility up to 2032.

- KPI 8 - Number of products (and services) sold in UK and Internationally.

- KPI 9 - Potential reduction in CO2 emissions savings of project up to 2032.

The monitoring processes evolved over the lifetime of the programme. As new DESNZ programme delivery personnel become responsible for the programme, they identified a need for greater detail on project progress and information to feed into lessons learned. The most notable changes were:

The quarterly reporting form was amended for the September - December 2020 quarter to add a section on Lessons Learned, with specific text boxes on elements of product development and roll out (such as Market research and routes to market including strategy, Energy efficiency measures installed, and Enablers, barriers, and unforeseen issues).

The addition of fortnightly catchups in March/April 2020 to discuss Covid-19 impact and in late 2021 to enable more detailed oversight by the new programme lead. While this sounds like a significantly higher burden, none of the project leads or consortium partners stated this was an issue.

These three monitoring processes were broadly seen by all stakeholder groups to provide an adequate framework for understanding the progress of projects towards their objective and enable early identification of any possible issues to delivery and subsequent commercialisation. Duplication and overlap were generally not seen as issues, except for the various formats of requesting information about Covid-19 impacts on project progress (a separate section in the annual KPI collection, added in 2021) and the monthly meetings directly after quarterly report submission. The latter was resolved with a shorter, lighter touch meeting.

> *I don't really think there was massive duplication of efforts. When they've submitted their quarterly report and then the monthly progress call comes around just after… I think sometimes that can be that sort of overlap…BEIS were available and there was a good flow of information, particularly with the bi-weekly calls.*
>
> Monitoring Officer

The programme monitoring processes were seen to be effective in identifying needs for revision of project delivery timeframes. All three projects worked with their MOs to agree on longer delivery due to effects of Covid-19. Project leads and consortia partners were complimentary of the flexibility and understanding demonstrated by DESNZ and the MOs.

> *I never felt unsupported… information was clear and change requests were approved easily.*
>
> Project lead

> *Yeah I think yes [monitoring processes were effective]. From an admin perspective we knew what we had to do by when. We could ask questions. And questions were relayed to BEIS and they were answered appropriately.*
>
> Project lead

One issue that did arise is that an MO failed to flag the impact of delays on financial year spend, which required escalation to a Senior Responsible Officer (SRO) level.

> *In some instances, schedules [were] missed and spilled into next financial year which should have been escalated to BEIS… If [this was] flagged earlier, they could have been risks rather than issues.*
>
> Internal DESNZ stakeholder

The three projects all recognised the need for monitoring given their receipt of public money. They noted that in general monitoring requirements, change requests, and administrative procedures were all quite smooth. Though, their views on proportionality of the extent of monitoring requirements differed. While two of the project leads saw monitoring processes as relatively intensive, the third project found the quarterly monitoring form to be too restrictive, and they often submitted additional annexes. None of the projects stated that the monitoring burden was prohibitively high, although the submission of claim forms against milestones was an issue for one of the projects.

To a large extent, the breadth of the programme management and project support available was seen as sufficient to meet applicants' needs. However, given the learning aspect of the GHFIF competition, the projects were expecting more two-way communication and challenge on the content submitted in their quarterly reports. Furthermore, the projects would have welcomed the opportunity to play a more active role in feeding their findings into the development of relevant DESNZ policies and actions. This may indicate a need to form more effective feedback loops from projects to programme delivery beyond the monitoring of progress, to facilitate more in-depth engagement alongside the quarterly reports.

> *We expected more challenge and questions as we went along…I would have expected more about asking us what learning are we taking out of it and we would have liked to know more about what they [BEIS] are learning from us. But it may have been that that was happening in the background.*
>
> Project lead

In terms of additional support, some of the projects could benefit from additional commercialisation support, such as incubation services provided in the Energy Entrepreneurs Fund. These may be less relevant for large lenders with internal marketing teams and more helpful for start-ups and SMEs.

Project consortium partners had limited to no involvement in monitoring, but when they were involved, they found the milestone reports to be useful for codifying findings and internal project planning. One issue raised by a project consortium partner with respect to monitoring was that they were not anticipating the need to complete the 'Reasonable assurance report'[7]. This resulted in the teams' inability to claim the full anticipated project cost. The inability to claim seems to have arisen partially due to a senior member of staff leaving and more junior member of staff taking a bigger role in program delivery.

Monthly and quarterly monitoring processes are led by two externally employed MOs who were allocated when the projects were notified of their successful application outcome. The MOs split their responsibility based on project size, one leading on two smaller projects and the other on one larger project. This worked well, although some internal stakeholders noted that having one single MO for the three projects could have made the process more efficient and consistent. MOs tended to spend about 20% of their time on their monitoring responsibilities, suggesting an extra project could have feasibly been added to one MO. The majority of the time spent by MOs related to monthly monitoring and processing claims. While Covid-19 resulted in higher effort than usual, the MOs had sufficient time, skills, expertise and resources to carry out the monitoring effectively.

The MOs were external, which provided greater independence. The MOs both had a background in energy efficiency but not in finance, which was not seen as an issue. One of the projects noted a preference for having a more senior person appointed as an MO. Additionally one project would have preferred if the monitoring process was proactively seeking to identify and address issues, or to inform DESNZ policy by feeding in insights from the project, as they instead found it more of a 'box ticking'

[7]The reasonable assurance report was included as a stipulation in the grant terms and conditions, and it was not clear where the perception they wouldn't need to complete the report emerged.

exercise. We have been unable to interview the relevant MO to receive their view on this.

One of the projects felt that approving payments based on milestones was useful, but that tracking how specific costs linked to each milestone was onerous. This challenge was linked to the different effort profiles of different milestones and the way the project was organised. A solution to this perceived issue was to adopt payment of claims based on work carried out/costs incurred over a specific period – a process that was reportedly adopted by Innovate UK for some of their programmes. However, this change would introduce further risk if a large proportion of costs were expended but progress against milestones was slow. The other two projects, which were more sequentially organised, did not find this an issue.

Dissemination of findings and policy learning

Summary Box 6 Key findings around dissemination of findings and policy learnings

1. Dissemination is predominantly handled through final reports to DESNZ. Though one project has a more extensive dissemination plan, and another expects there might be some dissemination through consortia partners.

2. More engagement between DESNZ and projects was desired at key project milestones, both by DESNZ policy and the projects.

The dissemination of findings is a key part of the GHFIF competition due to the nature of its objective to stimulate the market through demonstrating innovative products and to enable policy learning within DESNZ. The plan for dissemination is predominantly based on the final reports but projects are also taking their own initiatives to share findings through workshops and online dissemination.

There are two components to the dissemination of findings communicating with wider stakeholders, and then feeding into policy learning at DESNZ. These two components are discussed separately below.

Disseminating findings to wider stakeholders

As part of the application process, applicants were required to detail their plans to disseminate project learnings to wider stakeholders. The three projects have chosen different approaches to dissemination and plans are unique to each consortium.

Table 6: Dissemination activities of GHFIF projects

Project No.	Dissemination Activities
GHF101	White paper with qualitative and quantitative information to allow decision makers to understand the success of the green measures installed during the project as well as a directory of vetted green vendors available for free to homeowners.
GHF102	Detailed report explaining the product’s scope, features, project plans and detailed customer journeys which will look at barriers and enablers for setting up a range of green home finance products. This report will be made available to DESNZ.
GHF103	Variety of events and briefs including newsletters, website, social media, press releases and targeted press releases, thought leadership features, industry and academic papers, conference speaking and exhibitions.

As expected, and in line with the plans made during the application process, the project leads described limited dissemination of findings to date. They see the final report as the foundation for publicising results more widely. The approach to dissemination varied significantly between the project leads. For example, one project lead believed that a key part of their dissemination was the mutual learning processes they have benefited from through collaboration with a wide range of partners throughout their project. This project lead highlighted that these informal interactions are the main learning mechanisms. They do not currently have plans for formal dissemination activities following the end of the project. This was mirrored in another project that did not mention extensive dissemination plans. This project saw their role mainly as providing the report to DESNZ and allowing DESNZ to decide how to use the findings. They said:

> *I think it is in BEIS’s hands after we give them the report. They have to look at the full results.*
>
> Project lead

In contrast, another project had planned widescale dissemination once they have their reports signed off. They are planning a workshop to disseminate the findings from their two years’ worth of work. They intend the workshop to be immersive and open to whoever wants to come.

These differences in approaches to dissemination relate to differences between the motivations of the organisations involved and the commercial context in which they are operating. DESNZ’ flexibility in allowing a bespoke approach to dissemination for each project seems effective and appropriate given the diversity of aims and types of consortium partners. The project leads did not raise issues in this area. This contrasts with policy learning within DESNZ, where there was a widespread view this could be enhanced, as described in the subsequent section.

Internal policy learning at DESNZ

Internal policy leads from DESNZ had access to quarterly reports and annexes related to the achievement of major milestones. DESNZ staff were in continuous communications with the MOs and engaged with the projects at specific points, such as extension approvals or any issues requiring escalation. Engagement between DESNZ programme and policy teams were considered to be at a sufficient frequency to feed emerging insights into policy developments within DESNZ. However, this shared learning largely took place through informal discussions and sharing of tacit knowledge, some of which can be lost following staff turnover. Much of the internal discussion on how project insights may inform policy development are not visible to the projects themselves. Two of the projects noted they would welcome more dialogue about their progress and how their findings may influence future policy.

There is expected to be more formal learning processes that take place once the final reports have been produced. One interviewee described a number of potential audiences within government for the formal learnings, including policy team in DESNZ and the Department for Levelling Up, Housing and Communities (DLUHC).

Another viewpoint that came across strongly amongst project leads, project consortium partners, DESNZ staff and MOs, was that the mechanisms for encouraging the flow of information between DESNZ and the project leads could be improved. This is already covered above in relation to the monitoring processes of the programme and how these could be used to encourage this. Both the project leads and the DESNZ policy team would welcome an opportunity to share findings at key project milestones, such as participating in lessons learned workshop a work package is completed. This point links to the main motivation behind organisations that decided to participate in the GHFIF competition. Interviewees described that one of the main reasons for applying was the opportunity to learn how to address green finance issues from and with DESNZ. The willingness from project leads and partners to share and discuss insights is an opportunity for DESNZ policy leads and programme delivery personnel to maximise learnings of key issues and barriers, both in specific fields such as home finance, and in cross cutting areas, such as innovation processes.

However, this must be tempered with the understanding that this market is highly competitive and that interactions must be conducted sensitively to prevent any sense of favouritism. The most appropriate format would be holding 1-2 workshops per project where projects could present their findings and DESNZ policy teams could engage in discussion about the projects and potential implications on policy. These types of engagement would need to be carefully planned and rules about confidentiality should be agreed on in advance by both the project and policy stakeholders. Some information is better suited for formal reporting, but more indicative/early findings can be discussed in a workshop. One project partner described how they need re-assurance of sharing information in confidential setting.

> *We're ok with it [balancing commercial confidentiality with reporting], but we are treading carefully, the information is not for public consumption. It might break the conversation if made public – we are worried about getting quoted, but happy to share information with BEIS and the team. We feel more comfortable speaking then in formal reports*
>
> Project lead

Project leads saw the flow of information both ways as potentially beneficial. They believed DESNZ could learn more from their emerging findings and experiences, and also that closer interaction with DESNZ could help them to course correct and tweak their projects in line with potential upcoming changes in government policy.

This publication is available from: www.gov.uk/government/organisations/department-for-energy-security-and-net-zero

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