

SIF Alpha Round 3 Project Registration

Date of Submission

Oct 2024

Project Reference Number

10131748

Initial Project Details

Project Title

Flex Direct

Project Contact

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Challenge Area

Novel technical, process and market approaches to deliver an equitable and secure net zero power system

Strategy Theme

Supporting consumers in vulnerable situations

Lead Sector

Electricity Distribution

Project Start Date

01/11/2024

Project Duration (Months)

6

Lead Funding Licensee

UKPN - London Power Networks Plc

Funding Licensee(s)

UKPN - London Power Networks Plc

Funding Mechanism

SIF Alpha - Round 3

Collaborating Networks

UK Power Networks

Technology Areas

Commercial

Modelling

Poverty

Stakeholder Engagement

Project Summary

Energy efficiency retrofits rolled out by Local Authorities (LAs) and Social Housing Providers (SHPs), such as home insulation and storage heating, represent an opportunity to procure flexibility from disadvantaged households that are typically not able to participate in flexibility markets.

Flex Direct aims to develop a new way to procure this type of flexibility by Distribution System Operators (DSOs). The project is developing novel commercial models and coordinated market approaches to enable LAs and SHPs to operate in direct contract with DSOs. This will incentivise use of energy efficiency in flexibility markets and facilitate participation of 'hard-to-reach' customers at scale.

Add Preceding Project(s)

10061348 - Flex Direct

NIA_UKPN0069 - Socially Green

Add Third Party Collaborator(s)

The Centre for Sustainable Energy

LCP Delta

Utilita Energy

SIA Partners UK

Project Budget

£533,674.00

SIF Funding

£480,307.00

Project Approaches and Desired Outcomes

Animal testing (not scored)

- Yes
- No

Problem statement

Since 2021, over £1 billion of centralised funding has been made available to UK Social Landlords (LAs and SHPs) through schemes including the Home Upgrade Grant or Social Housing Decarbonisation Fund for energy efficiency retrofits. Simultaneously, DSOs need to reduce peak load reduction their flexibility markets.

These large-scale retrofits could contribute substantially to the provision of enduring peak load reduction, helping to defer costly reinforcement in constrained network areas. However, to date there has been limited uptake of flexibility from energy efficiency across UK Power Network's area. Unlocking the use of energy efficiency retrofits for network flexibility would reduce the risk of customers being left behind in the energy transition and reduce the network cost of enabling net zero, unlocking potential benefits of £108m(NPV) to 2030.

Discovery found the following key barriers:

- Limited coordination between Social Landlords, flexibility aggregators and the DSO on energy efficiency retrofits, while consumer awareness of flexibility provision through energy efficiency remains low;
- Measuring the volume of flexibility achieved solely through energy efficiency is complex: Accurately baselining historical peak consumption in the absence of smart meter data (as often found in social housing) is challenging, resulting in an inability to accurately calculate changes in demand;
- Varying ability across Social Landlords to participate in flexibility markets: Differences in capability, capacity and scale means a one-size-fits-all approach using current market and product arrangements is unlikely to lead to organic uptake.

Flex Direct addresses these barriers by developing novel commercial models and a coordinated market framework to enable direct participation of Social Landlords into flexibility markets, facilitating the inclusion of hard-to-reach customers within the energy system at scale. Therefore, Flex Direct continues to meet Challenge 2, Theme 4.

The project evolved through Discovery by establishing three commercial options varying in terms of risk, reward and involvement of different stakeholders:

1. Innovation under current market arrangements: including adjusting flexibility procurement timelines, introducing longer contracts, developing alternative monitoring and baselining approaches, and increasing marketing of flexibility markets.
2. Direct contracting between the Distribution System Operator and Social Landlords: offering clearer incentives, support, roles and responsibilities (in addition to option 1).
3. Direct contracting framework involving the DSO Social Landlords and wider supply chain (see Appendix): emphasising commercial viability and scalability through increased costs and expertise.

Alpha will further develop these into a Flex Direct commercial framework, through engagement with Social Landlords, flexibility aggregators and wider stakeholders, with the intention of trialling the solution in Beta.

Users include:

- Social Landlords: Discovery confirmed their willingness to participate in Flex Direct for the potential financial incentives and enhanced DSO relationship, but also identified the need for upskilling and concerns about existing risk-reward regimes.
- DSO: Discovery highlighted the need for the DSO to take the lead in driving participation in energy efficiency flexibility across all products, otherwise risk limited uptake. DSO can gain access to previously untapped capacity and visibility of impact of energy efficiency retrofits on their networks, which is currently ambiguous.
- Energy Management Companies and Flexibility Aggregators: need to unlock increased revenue streams from energy efficiency, however Discovery has shown they require a better commercial offering to integrate flexibility into their broader 'Energy-as-a-Service' offerings.
- Vulnerable customers: need improved quality of social housing and lower bills facilitated by energy efficiency retrofits, but Discovery identified scepticism towards monitoring technology, such as smart meters, and the need to reconsider the current baselining approach and reap additional potential benefits from participation in flexibility markets.

Flex Direct takes learnings from the NIA-funded Socially Green project which undertook research into the barriers that prevent disadvantaged customers from participating in flexibility markets.

Innovation justification

While the uptake of flexibility from energy efficiency, under current market arrangements, has been low, Discovery highlighted the opportunity for scaling through domestic energy efficiency programmes. Flex Direct brings an innovative approach to enabling the participation of disadvantaged consumers in flexibility markets by exploring novel commercial and contractual arrangements between DSOs and Social Landlords.

The counterfactual scenario is assumed to be continuation of existing commercial arrangements related to energy efficiency flexibility. Our analysis indicates that this approach is unlikely to drive market uptake, as Social Landlords would not earn enough revenue from participating in flexibility markets to justify the additional costs of submitting flexibility bids and meeting existing governance requirements. Flex Direct is innovative compared to the counterfactual for several reasons:

- Reconsiders the role of Social Landlords (who manage housing for a large segment of vulnerable consumers) within the wider energy system through novel commercial and contractual frameworks with the DSO. In Alpha, we will assess suitability of different archetypes of Social Landlords to participate in the solution and consider associated arrangements to ensure benefits are felt by the end consumer.
- Improves DSO visibility of energy efficiency retrofits rollout by gathering data to assess potential impact on demand across the network. There is an opportunity to unlock additional value for disadvantaged customers by aligning data on centralised funding for energy efficiency retrofits against electricity network needs.
- Explores new approaches to demonstrate the volumes of flexibility achieved from energy efficiency measures such as adding equipment to feeders or transformers. This represents a significant change from present approaches relying on aggregated smart metering data, which poses a major barrier within current social housing contexts.
- Improves the DSO understanding of how vulnerability is impacted by an increasingly flexible energy system and ensures safety mechanisms are built in to protect end-consumers.

Throughout Discovery, we have collaborated with stakeholders across the energy efficiency and flexibility value chain to test our solution, refine the desired outcomes and identify key challenges preventing uptake of energy efficiency flexibility. We also engaged with eight Local Authorities to pinpoint their most significant barriers and to understand the challenges disadvantaged customers face in participating in the transition to Net Zero. These learnings will feed into Alpha to ensure the new Flex Direct offer meets market expectations and considers the main barriers: data protection, contractual risks, resource requirements.

Flex Direct is best suited for SIF due to the complexity of the surrounding issues, in addition to the extensive collaboration required to ensure flexibility through energy efficiency can be adopted across the sector. It requires significant research and engagement to be undertaken which could not be funded as part of business-as-usual (BAU) activities due to the level of risk and uncertainty associated with novel market arrangements suitable for vulnerable customers. Alpha has been designed to both build upon core learnings identified with Discovery and to address key requirements ahead of a potential live trial within Beta. As such, the scope and scale is well-suited to SIF requirements and phased nature.

Discovery allowed IRL and CRL to reach 3 with TRL at 4. By the end of Alpha, the aim is reach IRL, CRL and TRL between 5-6 as the product is validated, partnerships are formed, and commercial models are built.

This first-of-its-kind approach will enable stakeholders to unlock additional flexibility and wider benefits from energy efficiency measures. This has the potential to deliver significant value, as the timing and the delivery of the energy efficiency installations is monitored and incentivised towards areas with network constraints and with high populations of disadvantaged customers.

Therefore, Flex Direct addresses Challenge 2, Theme 4.

Impact and benefits (not scored)

Financial - future reductions in the cost of operating the network

Financial - cost savings per annum on energy bills for consumers

Environmental - carbon reduction – indirect CO2 savings per annum

Revenues - improved access to revenues for users of network services

New to market – processes

Others that are not SIF specific

Impacts and benefits description

Flex Direct will provide DSOs with new commercial arrangements to unlock additional flexibility and wider benefits from energy efficiency measures. There is opportunity to deliver significant value, particularly as the delivery of the energy efficiency

installations is incentivised towards areas with network constraints and with high populations of vulnerable customers. The CBA assessed the potential benefits of a coordinated market approach and improved information sharing between Social Landlords and UKPN against a pre-innovation baseline which reflects the existing BAU network planning approach.

The baseline is based on the DFES Consumer Transformation scenario and assumes a continuation of the current trend: that energy efficiency retrofits providing network flexibility remains low, while retrofits occur sporadically across the network, with limited visibility for the DSO. This could cause over- or under-procurement of flexibility and higher network reinforcement costs than would be the case with a coordinated approach.

Our analysis assumes Flex Direct can help influence the location of retrofit deployment to provide enduring peak demand reduction and enabling deferral of network reinforcement. Our CBA has found this offers a potential net present value of £108m across UKPN's area to 2030.

Financial - future reductions in the cost of operating the network (£70m across UKPN's area to 2030)

The installation of energy efficiency retrofits at-scale which provide peak demand reduction can defer, displace or avoid the need for costly network reinforcement incurred by the DNO, passed on to end-consumers through energy bills.

Financial - cost savings per annum on energy bills for consumers (£4.85m per year across UKPN's area to 2030)

The installation of energy efficiency measures delivered through co-ordinated market approaches introduced through Flex Direct would result in a reduction in customer energy bills as their peak energy demand is reduced.

Environmental - carbon reduction – indirect CO₂ savings per annum (26 kt CO₂e reduced across UKPNs area to 2030)

The installation of energy efficiency measures delivered through co-ordinated market approaches introduced through Flex Direct would result in a reduction of peak energy demand which in turn would reduce the resultant carbon emissions from power generation.

Further, by reducing peak electricity demand through large-scale energy efficiency measures, the need for network reinforcement is reduced. Consequently, fewer new grid and primary transformers will be required to support the network. This will lead to a reduction in carbon emissions associated with the manufacture of these transformers, which would have been necessary in a traditional network reinforcement scenario without Flex Direct.

Revenues - improved access to revenues for users of network services

An increase in vulnerable/disadvantaged households participating in flexibility markets as their relevant Social Landlord provide flexibility services to the DNO directly. These benefits have not yet been quantified and will be explored further in Alpha as the Flex Direct commercial framework is developed.

New to market – processes

Stimulating the market and increasing uptake of energy efficiency and flexibility through new commercial models and standards. This offers wider potential benefits across DNOs if learnings are shared and adopted across the sector.

Others that are not SIF specific

The project will deliver additional wellbeing benefits to vulnerable and disadvantaged consumers. This includes quality of life improvements due to having warmer homes from energy efficiency measures and the benefits of ensuring vulnerable and fuel poor customers are also able to benefit from participating in energy markets.

Expanding the CBA to capture wider societal benefits will be a key objective in Alpha, ensuring that commercial arrangements being developed considers holistic value delivered to the end customer.

Teams and resources

Flex Direct brings together five partners: UKPN, Sia Partners, The Centre for Sustainable Energy (CSE), LCP Delta and Utilita Energy. This team has experience of successfully collaborating on previous network innovation funded projects operating at the intersection of flexibility markets and consumer vulnerability, putting them in an expert position to deliver this project.

The project team has undergone the following changes from Discovery:

Discovery showed that a key barrier to uptake of flexibility from energy efficiency is difficulties surrounding accurate baselining of historical demand. We have therefore onboarded LCP Delta for their technical expertise in consumption modelling to support with this activity in Alpha.

Utilita Energy will provide input to validate commercial arrangements from a supplier perspective, and provide required data for baseline modelling where relevant. They have previously worked with Sia Partners, CSE and UKPN on other SIF-funded projects.

As we consider the holistic whole-system benefits of energy efficiency flexibility from Flex Direct, the CBA must be expanded to capture broader social benefits. Therefore, Sia Partners will replace Imperial College London to complete this activity given their expertise with Social Return on Investment modelling and consumer vulnerability in the energy sector.

UKPN

Skills/Expertise: UK's largest electricity distributor delivering power to 8.5 million homes and businesses across London, the East and South-East of England, with a proven track record of delivering benefits through innovation, having delivered over £400m savings from innovation in RIIO-ED1.

Role: UKPN will oversee project management, as well as provide expert input from Flexibility Markets and Local Net Zero teams.

Sia Partners

Skills/Expertise: Leading management consultancy in regulatory, asset management and data science in the UK energy sector, in particular within consumer vulnerability for regulated utilities. This includes several successful innovation projects focused on ensuring disadvantaged consumer segments are not left behind the energy transition, including Socially Green and Guidelight.

Sia Partners also has expertise in flexibility services and product design for regulated energy networks in the UK and Europe.

Role: Lead on developing commercial and contractual framework, assessing the route to market and improving the alignment of energy efficiency retrofits with electricity network needs.

CSE:

Skills/Expertise: Charity supporting people and organisations across the UK to tackle the climate emergency and end suffering caused by cold homes. CSE supports households and communities to take action on energy, alongside original research to inform local and national policy. CSE's research team has expertise in: housing and buildings energy efficiency and energy systems data analysis, low carbon technologies, consumer energy behaviour, fuel poverty, and fairness in the Net Zero transition.

Role: Lead on engagement with Local Authorities, Housing Providers and vulnerable customers to inform work packages and identify potential trial sites for future phases.

LCP Delta

Skills/Expertise: Leading consultancy working with energy suppliers and network operators to address challenges presented by the Net Zero transition. Previous work explores mitigating the impact of electrification on distribution networks and ongoing engagement with energy communities, solution providers and network operators

Role: Lead on developing the methodology for alternative baselining approaches for flexibility from energy efficiency.

Utilita

Skills/Experience: UK-based electricity and gas supplier specialising in pay-as-you-go metering.

Role: Act as a subject matter expert(SME) to validate the commercial frameworks developed in Work Package 3 and provide relevant, anonymised data to support modelling in Work Package 5

Therefore, across the consortium, the project will have access to all required resources, equipment and facilities needed for Alpha.

The project will engage with Local Authorities, Social Housing Providers and wider stakeholders, including vulnerable customer representatives. The engagement with these parties (within WP2) is crucial to inform and validate surrounding work packages (WP3, 4 and 5).

Project Plans and Milestones

Project management and delivery

UKPN will lead on project management using standard best practice methods and tools, including fortnightly management meetings and status reporting, more frequent stand-ups as required for design sprints, tracking risks, and a stakeholder governance schedule aligned with project timelines. We have created the project plan based on the partners' extensive experience and learning from previous successful projects.

The project will employ robust risk management focused on risk identification, assessment, mitigation planning, monitoring and control, and communication. This is designed to minimise project overruns, control costs, and address potential challenges. A Risk Register will be regularly maintained and reviewed by project partners. The key risk identified at this stage is:

R11 – Direct participation of Local Authorities in flexibility markets could lead to excessively risky behaviour where end consumers are not protected.

In WP2, the project will develop an eligibility criteria to ensure that only those Social Landlords who have the appropriate organisational and technical capability (such as funding, governance, expertise and reputation) to directly participate in Flex Direct. WP2 will outline the criteria that will exclude unsuitable organisations from engaging where it is excessively risky, as well as outline replicable routes to participation that will limit the risk of authorities overstressing and overexposure to risk.

Full details of project plan, including interdependences, risks and their mitigations are provided in the attached PMT. We do not propose any stage gates within Alpha due to the short timescales and the clear interdependencies of work packages and partners meaning all proposed work is required for project completion.

Alpha includes five work packages:

WP1: Project Management - UKPN

Aim:

Project delivered to high quality against budget, timelines and SIF Requirements

WP2: Engagement with Local Authorities and Partnership Ecosystem - CSE

Aims:

Establish requirements for Social Landlords (such as organisation size, condition of housing stock, access to energy efficiency retrofit funding, etc) and define eligibility criteria to participate in trials

Understand user journeys and impact on vulnerable customers

Identify potential sites for future trial(s) based on eligibility criteria developed

WP3: Commercial Arrangements and Route to Market - Sia Partners

Aims:

Develop and refine commercial frameworks created in Discovery, with expert input from Utilita, and validate frameworks by directly testing willingness-to-accept with Social Landlords, as coordinated by CSE

Refine and expand CBA, incorporating alternative baselining methodologies as developed in WP5

WP4: BAU Transition & Data Discovery - Sia Partners

Aims:

To identify the requirements to standardise energy efficiency flexibility into BAU and enable DSO to visualise energy efficiency retrofits (and their potential impact on capacity) across the network through a review of existing data sets;

Engagement with UKPN's DSO teams to understand data and user requirements, and engagement with Social Landlords, as facilitated by CSE, to understand data sharing with the DSO.

WP5: Alternative Approaches to baselining peak consumption - LCP Delta

Aims:

Explore different modelling approaches based on an assumed set of energy efficiency measures and/or monitoring such as adding equipment to feeders or transformers that do not rely on aggregated smart meter data. The accuracy and reliability of these alternative baselining approaches will be compared to existing methods to overall improve the market confidence that energy efficiency flexibility delivers a peak load reduction.

As such, the project will engage with consumers, but will not have any impact on their access to energy services, supply or premises.

Key outputs and dissemination

At the end of Alpha, Flex Direct will have achieved:

Established criteria/requirements of Social Landlords that will be suitable to participate in Flex Direct.

An initial commercially viable proposition and contractual framework allowing Social Landlords to provide flexibility from energy efficiency directly to the DSO which has been tested and accepted by key stakeholders.

A robust CBA comparing the value of Flex Direct to a counterfactual scenario, considering alternative baselining approaches and capturing wider societal benefits.

Defined requirements to capturing energy efficiency data when planning for Flexibility Markets and Local Net Zero teams.

Defined requirements for an alternative approach to historical baselining for peak demand reduction ready for Beta trial.

Dissemination will be through the deliverables and required reporting. This will include:

WP1: Project Management – UKPN

Project plan

Mid-point review

End of Phase and Show & Tell

WP2: Engagement with Local Authorities and Partnership Ecosystem – CSE

Refined eligibility criteria and replicable route maps for Social Landlords' participation in flexibility markets

Shortlist of potential trial sites for Beta

Engagement summary report including user journeys

WP3: Commercial Arrangements and Route to Market - Sia Partners

Updated Commercial and Contractual Framework

Updated CBA

WP4: BAU Transition & Data Discovery - Sia Partners

Data and user requirements for DSO and Social Landlords to visualise energy efficiency retrofits and potential network impacts

WP5: Alternative Approaches to baselining peak consumption - LCP Delta

Alternative baselining approach methodology and requirements, including initial recommendations for Beta trial site(s)

Dissemination

Information on the project will be disseminated on UK Power Networks Innovation website, as well as any additional online opportunities, such as case studies, that partners identify. Where appropriate, UK Power Networks will look to share key project updates via its official LinkedIn page. This will leverage the strong audience of more than 50,000 followers, with updates also shared by project partners.

UK Power Networks will make an announcement press release summarising the total funding received for all Round 3 Alpha projects. All partners will also look for opportunities to share project announcements and updates in the way of press releases to help increase industry engagement

UK Power Networks have a history of presenting at industry events in scale. At last year's Energy Innovation Summit 2023, it shared updates for 19 projects, with over half of them being SIF round two projects. This will look to be replicated at this year's event, be it at specific seminars/round tables or on its own conference floor stand. In February 2024, UK Power Networks held its inaugural Net Zero Networks conference, in front of a large audience of project partners, regulators, academics and industry professionals at London's Institute of Engineering and Technology. At this event we shared updates for over a dozen projects, the majority being Strategic Innovation Fund round 2 projects. Based on the success of this event, the UK Power Networks Innovation Team will look to host a second edition in early 2025, with a focus on disseminating projects from the Strategic Innovation Fund Round 3 Alpha phase.

Commercials

Intellectual property rights, procurement and contracting (not scored)

The project will follow the standard approach to IPR management as set out in the SIF Governance Document Chapter 9.

None of the project partners require any subcontractors during Alpha.

Commercialisation, route to market and business as usual

Commercialisation plan

While flexibility uptake has substantially increased in recent years, certain barriers limit the participation of energy efficiency in existing flexibility mechanisms. Alpha is designed to strategically tackle these barriers to unlock its potential to scale into BAU. Building on work undertaken in Discovery, WP3 will further refine commercial and contractual frameworks for energy efficiency flexibility as well as considering additional elements to ensure tangible benefits are realised for vulnerable customers. Sia Partners will work alongside Utilita for their subject-matter expertise when refining these to ensure supplier perspective is captured. These will then be tested through engagement with LA/SHPs through dedicated workshops to understand their willingness-to-accept.

In addition, network operators currently have low visibility of energy efficiency retrofits across their networks and the scale of potential flexibility these could provide. WP4 examines the data and user requirements to allow the DSO to understand and view energy efficiency retrofits, whilst simultaneously engaging with LAs and SHPs to understand their preferred method of sharing necessary data with the DSO. This will inform future phases of Flex Direct and ensure any tools or processes developed have been shaped by users.

Finally, accurate baselining of historical consumption is required to determine the potential volume of flexibility that will be provided to the DSO and the subsequent revenue generated for the Social Landlords. Current methods rely on smart meter data from the previous year to approximate this baseline, however the limited penetration and access to smart meter data poses a key barrier, especially in social housing. WP5 is therefore dedicated to identifying alternative approaches to baselining consumption, a key step in broadening participation in flexibility markets by removing the need for smart meter data. This will also crucially evidence commercial viability of flexibility from energy efficiency measures.

Commercial readiness

The project partners have significant expertise in SIF projects and are therefore comfortable with the requirements needed to scale Flex Direct. In addition, Sia Partners has a dedicated Growth and Innovation team who specialise in innovation methodologies and specialist route to market strategies, with direct experience in scaling trials in flexibility market and specifically targeting vulnerable customers.

UK Power Networks Senior sponsors

Through Discovery and in preparation for Alpha, Flex Direct has secured support from UKPN's Head of Flexibility Markets and wider DSO team, in addition to that of the Innovation team. Additionally, sign-off for SIF Alpha projects is at the Executive Management team level. We plan to continue to engage with UKPN stakeholders throughout Alpha and have established dedicated tasks to engage further with DSO teams.

Knowledge Sharing and Transfer

To ensure a successful transition to BAU, all parties within value chain around flexibility from energy efficiency must develop and maintain the expertise required. For example, LAs and SHPs will require the resources and know-how to successfully apply for flexibility with the DSO. To ensure Flex Direct imparts lasting change, WP2 will engage extensively with these parties to understand their challenges and requirements, and develop replicable route maps to participation, outlining the necessary steps and resources LAs/SHPs will need. These can be shared and will be applicable to LA/SHPs around the country, supporting facilitation of flexibility across networks. It will also be used to inform site selection in future phases to ensure suitable trial participants.

Finally, the alternative approach to baselining peak consumption will enable LA/SHPs across networks to bypass previously-'required' smart meter data, unlocking dwellings otherwise thought to be excluded.

Policy, standards and regulations (not scored)

The Flex Direct solution aims to leverage existing governmental funding measures towards energy efficiency upgrades in social housing – particularly aimed at dwellings that are below EPC C. Since 2021, over £1 billion of centralised funding has been made available to UK Social Landlords (Local Authorities and Social Housing Providers) through schemes including the Home Upgrade Grant or Social Housing Decarbonisation Fund to carry out these energy efficiency retrofits.

As it stands there are no policy changes or decisions which would need to occur for the project to progress into business as usual, as the central funding mechanisms remain in place.

Through our research and engagement in Discovery we found that the current political and regulatory outlook suggests a low likelihood of the energy efficiency funding for homes changing in a direction that causes disruption to Flex Direct.

Notably, the Social Housing Decarbonisation Fund which first began in August 2021 has been underperforming against its delivery targets and it has been acknowledged that more progress is needed. As of March 2024, 20,000 homes had successfully installed measures from the funding against the total target of 140,000 homes. This suggests that funding in some form will need to continue for longer to achieve the targets. Moreover, following the scheme's initial launch in 2021, the government has since announced an additional £1.25 billion of funding in December 2023.

Given that a General Election is taking place in 2024, it is also important to highlight that both the Conservative and Labour Party have planned the continuation of funding towards upgrading energy efficiency in homes in their manifestos.

- Conservatives have pledged to invest £6 billion in energy efficiency over the next three years to make around a million homes warmer, and;
- Labour will invest an extra £6.6 billion over the next parliament.

Based on the above, we do not envision any policy, regulation or standards which prevent the project team from successfully delivering Flex Direct within this phase or future phases.

As part of WP1 Project Management, UKPN will monitor and track any changes to policy, standards and regulation on an ongoing basis throughout Alpha. These will also be reviewed as part of developing the business case within WP3 when considering the regulatory and strategic aspects. Finally, these will again be considered within WP4 when we review the requirements for transition to BAU.

Value for money

Total costs: £533,674

Total contribution: £53,367 (10%) through labour in-kind

Total SIF funding requested: £480,307

UK Power Networks

Total costs: £68,020

Total contribution: £6,802 (10%)

Total SIF funding requested: £61,218

Sia Partners

Total costs: £237,573

Total contribution: £30,210 (12.72%)

Total SIF funding requested: £207,363

Centre for Sustainable Energy

Total costs: £103,035

Total contribution: £3,851 (3.74%)

Total SIF funding requested: £99,184

LCP Delta

Total costs: £112,746

Total contribution: £11,274 (10%)

Total SIF funding requested: £101,472

Utilita Energy

Total costs: £12,300

Total contribution: £1,230 (10%)

Total SIF funding requested: £11,070

There will be no sub-contractor costs, nor any other additional funding from other innovation funds.

The costs are proportionate to each partner as:

- CSE is a registered charity with no core funding. All its income is related to the projects and services it delivers. As a non-profit, it offers significant value for money in labour considering the level of expertise provided. Additionally, whilst CSE will lead and facilitate their own engagement to achieve WP2 outcomes, both Sia Partners and LCP Delta will be responsible for leading and developing the materials they wish to engage Social Landlords on (with CSE as facilitator)
- Utilita will act as an SME, providing strategic and commercial steer in workshops, and data provider to support the development of alternative baselining approaches
- The project sought a specialised consultancy with dedicated expertise in modelling energy consumption and therefore LCP Delta are responsible for WP5 solely.
- Sia Partners is responsible for two work packages, hence relative larger associated costs.

Flex Direct delivers excellent value for money through:

- Consortium of specialised organisations: The project team has the skills, prior knowledge, and stakeholder relationships to ensure that this project can be delivered quickly, efficiently, and to quality. The costs are based on experience of running multiple similar scale projects. The partners are aware of the methodologies they will follow and are confident an efficient cost has been proposed and with competitive market rates. Costs established have been scrutinised and challenged to ensure they provide the greatest value for money. For example, Sia Partners are suppliers on UKPN's business consultancy framework and were appointed following a competitive procurement exercise which included rates negotiations and an assessment of value for money.
- Strong history of contextual knowledge in energy efficiency, flexibility and targeting vulnerable customers: UKPN has undertaken several innovation projects in this space, including EnergyWise, Urban Energy Club, Shift etc. Sia Partners has also delivered industry-leading projects such as Socially Green in partnership with UKPN, as well as SIF-funded Guidelight with CSE.
- Use of actual, anonymised data: Utilita will provide access to necessary data to enable and support the development of alternative approach to baseline modelling
- Utilisation of existing relationships: Through its established and central role in supporting people and organisations in the transition to sustainable energy system, CSE maintains a wealth of existing relationships and connections to critical stakeholders and Social Landlords, including those engaged as part of Discovery. The project will seek to utilise these relationships to ensure efficient and quick access to necessary stakeholders.
- Significant benefits in relation to the counterfactual: Without Flex Direct tackling the significant existing barriers to adoption of flexibility from energy efficiency, it is likely the current state-of-play between Social Landlords and flexibility value chain would continue. With no incentive to participate, large scale energy efficiency retrofits undertaken across the country by Social Landlords over the coming years will not contribute to flexibility. Meanwhile, DSOs will remain unable to track and visualise impact of energy efficiency across their network, nor meet flexibility targets from this type of service.

Associated Innovation Projects

- Yes (Please remember to upload all required documentation)
- No (please upload your approved ANIP form as an appendix)

Supporting documents

File Upload

SIF Alpha Round 3 Project Registration 2024-10-22 11_13 - 81.2 KB

Documents uploaded where applicable?

