SIF Alpha Round 4 Project Registration

Date of Submission

May 2025

Project Reference Number

10145484

Initial Project Details

Project Title

EQUAL LCT (SIF ALPHA R4)

Project Contact

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Challenge Area

Accelerating towards net zero energy networks

Strategy Theme

Net zero and the energy system transition

Lead Sector

Electricity Distribution

Project Start Date

01/02/2025

Project Duration (Months)

6

Lead Funding Licensee

SSEN - Scottish Hydro Electric Power Distribution Plc

Funding Licensee(s)

SSEN - Scottish Hydro Electric Power Distribution Plc

Funding Mechanism

SIF Alpha - Round 4

Collaborating Networks

Scottish and Southern Electricity Networks Distribution

Technology Areas

Heat Pumps

Modelling

Stakeholder Engagement

Project Summary

To meet the demand that heat pumps and other LCTs will place on the network significant reinforcement will be required, it is critical that the cost of scale of this is managed effectively.

EqualLCT will accelerate the roll out of heat pumps combined alongside energy efficiency and flexibility products to facilitate the transition to net zero while also ensuring that peak heat demand is reduced thereby reducing the levels of network reinforcement that would otherwise be needed.

Attractive commercial offerings will facilitate the net zero transition, reduce bills for customers through reduced network reinforcement costs and in home energy efficiency.

Add Preceding Project(s)

NIA_SSEN_0076 - Equal LCTs

Add Third Party Collaborator(s)

BARINGA PARTNERS LLP

SMART METERING SYSTEMS PLC

Project Budget

£527,722.00

SIF Funding

£449,687.00

Project Approaches and Desired Outcomes

Animal testing (not scored)

- ○ Yes
- ◉ No

Problem statement

A just transition is inclusive, delivering societal and environmental benefits to all --we must maximise consumer inclusion in accessing Low Carbon Technologies(LCTs) to achieve it. A just transition provides the opportunity to optimise use of existing network capacity whilst allowing DNOs to make the most economic andefficient network interventions to best serve consumers.

Our earlier NIA project (Equal LCT), focused on improving LCT access for customers who were at risk of being left behind in the energy transition. Throughour consortium engagement (energy suppliers, LCT providers, banks, consumerbodies etc.), our findings demonstrated that DNOs had a clear role as both convener and data provisioner, enabling sustainable private sector business models. Importantly, the CBA from the NIA project showed there was significant opportunity to lower network investment by stimulating the use of Energy Efficiency (EE) especially when deployed alongside Heat Pumps (HPs).

Flexibility services typically reduce network peaks, by shifting it to a different time.Whereas, EE results in an enduring reduction in underlying energy demand and peak. The acceleration and targeting of EE can therefore be used as a tool to create capacity in a manner that presents deferment opportunities and accelerates connections.

EE should be considered as a viable way to defer network reinforcement, as well as reducing consumer bills. There is currently a lack of evidence to quantify the impact of specific EE interventions on peak demand. With greater understanding, DNOs could possibly contribute to EE acceleration incentives as an alternative to paying for future demand reduction services.

DNO/DSOs could support EE suppliers and LCT providers to drive incremental EE installation, especially in areas with a material benefit for the network. resulting in longer lasting, more enduring peak demand reduction. However, EE/LCT suppliers have identified a need for network data to let them better target their propositions.

However, there is no existing mechanism to deliver this this, Equal LCT Phase 2 looks to develop the framework and methods, which if properly aligned and coordinated when implemented will;
*Accelerate EE and HP uptake;
*Improve nationwide heat flexibility,
*Create network headroom, optimise use of flexibility services and deferinvestment

EqualLCT Phase 2 will focus on two innovative areas:

1)Determining the network impact and value, of a enduring peak demand reduction from EE and HPs. By valuing this long-term benefit (beyond a singleprice control) and sharing it with the LCT supply chain, the investment case for HPs would be more attractive and accelerate a roll out across a broader consumerbase.

2)Demonstrating the use case of enhancing existing digital tools like LENZA(which supports Local Authorities with LAEP development) to better share network data with the LCT/EE supply chain.

We will overlay additional data oncustomer segmentation, housing stock and the long-term network value of permanent peak reduction (identified in 1). These new data sources would help energy suppliers and the LCT supply chain to more efficiently target their propositions.

Example questions and regulatory barriers we will explore through Phase 2 include:

- How can the DNO/DSO contribute to deployment of incremental EE (and corresponding counterfactual peak demand reduction acceleration)?
- How would it be valued and paid for (e.g. up front Capex vs. annual flexibility payment).
- Who would be paid and what are the appropriate business models.
- How do DNOs achieve visibility of deployment and monitor ongoing performance.

- Identify appropriate Governance processes to ensure accurate reporting.

Project outputs will inform how we value enduring demand reduction in RIIO-3, demonstrate best targeting methods for GBE Local funding, and would also help inform future DNO demand forecasts via DFES.

Innovation justification

EqualLCT meets Innovation Challenge 2 (Greater Heat Flexibility), by developing a data-driven approach to identifying areas where the coordinated roll out of HPs and EE could be used to reduce heating related network peaks, creating headroom for further connections or deferring network reinforcement. Our approach allows greater potential for flexibility services to be used to manage remaining network peaks.

By Alpha's conclusion, EqualLCT aims to achieve the 3 key outcomes, as detailed in our Appendix:
*Geospatial mapping tool demo
*Quantified long-term benefits of EE+ flexible heating
*EE + Heat Flex Incentive framework

In the project's NIA-funded Phase 1, EqualLCT gathered a consortium to understand the challenges of specific consumer segments and identified barriers to mass deployment of LCTs across a range of customer segments. The appendix details our key findings and how these shaped our SIF Alpha application, along with details of how we've built on the learnings from other innovation projects such as UKPN's SHIELD and SSEN's SAVE.

Deploying EE and flexible heating at scale is a cross-industry effort. We will continue NIA consortium engagement in Alpha to understand challenges and develop solutions. Consortium feedback on LENZA's evolving data requirements will inform us:

1.what data technology providers and energy retailers need to identify investment opportunities
2.how to design an appropriate incentive framework for the EE + HPs commercial model.

Please see the Appendix for further details.

EqualLCT aims to address significant market and regulatory barriers that prevent mass deployment of EE/HP across wider customer segments. We have detailed
these in the Appendix.

Advanced HP rollouts are at TRL 7 and IRL5 but are currently CRL 5 when compared with traditional alternatives. Through appropriate regulatory reform and financial incentives, including those in this proposal, we aim to increase CRL to 7 by the end of Alpha, and to 9 by the end of Beta.

For our demonstration geospatial mapping tool, we will prove the concept for the new use case (TRL 3) in Alpha and successfully demonstrate and operate technology (TRL8) in Beta. Although the LENZA platform is being used in other environments, we are adding new user segments who have historically not been consumers of networks data.

The SIF Alpha Phase leverages the existing LENZA tool to overlay with housing stock, customer segmentation data and location-specific accessible network flexibility revenue schemes. As SSEN owns LENZA, Alpha will test within SSEN'slicence area. Beta will expand the concept GB-wide so the methodology fits all DNOs to influence RIIO-ED3.

We will explore end-to-end commercial viability with appropriate incentive frameworks. In Beta, we will conduct consumer trials and collaborate with knowledgeable LCT value chain partners.

In conclusion:
*The long-term network benefits from EE and flexible heating are relatively unproven and poorly quantified, the value remains unclear and there is no current mechanism in RIIO price controls for DNOs to support long term future demand reduction.
*Given the complexity and risk level of the project, the next phase of EqualLCT is best delivered by SIF innovation funding, where there is a strong track record for cross-industry collaboration. The multi-phase approach of SIF aids concept development through to detailed design and a demonstrator.

*The investment case for EE and HPs is weak without support, especially for the"squeezed middle". Alpha is required to explore how long-term network benefits can improve it.
*Our NIA Phase proved engagement is not solely sufficient. A tool is required to provide open data sharing between stakeholders (e.g. energy suppliers). While there is value and appetite for solution deployment, without digital solutions, enduring collaboration

and EE and HP uptake is hampered.

EqualLCT Innovation Justification Appendix.pdf (opens in a new window) (/application/10145484/form/question/44130/forminput/123567/file/767677/download)

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

Impacts and benefits description

Note: All financial figures in Q6 are pre-capitalisation and pre-discounting. 'Outputs Dashboard' in attached CBA file shows post-capitalisation and post-discounting total NPV.

Achieving net zero will see increased volumes of new HPs connected to the network. Whilst it is likely that some EE improvements may be done to the property, this may only be the minimum required to enable the project (e.g. to meet subsidy requirement).

This will be particularly true for households with limited up-front access to finance, including the "squeezed middle" segment. As such, our hypothesis is that heat demand will be higher than they might otherwise be, with adverse impacts on network peak demand, as well as higher bills for households. The purpose of EqualLCT is to support efficiency upgrades and encourage investment in EE, especially in constrained areas, to mitigate associated network peaks, reduce customers energy bills and reduce emissions. The improved LENZA platform will help the EE/LCT supply chain better identify and target potential properties.

Net benefit

Under our current scope and assumptions, we expect £60m total benefits and £25m total costs, resulting in £34m net benefits from EqualLCT.

How many households are in scope?

We expect over 48,500 homes in the SSEN license area to participate in EqualLCT, from 2026 to 2040. To estimate the number of beneficiaries, we identify the number of homes that satisfy the following criteria:

*Number of HP installs expected in SSEN region
*Proportion of inefficient homes
*Proportion of homes in constrained areas
*Proportion of those homes which could participate

What are the key benefits captured through EqualLCT?

EqualLCT is expected to bring three broad benefits, summing to £60m for the SSEN licensed area.

Direct Benefit 1. Savings from network reinforcement due to reduction of peak demand (c.£48m)

With additional EE, peak demand on networks can be reduced, deferring or avoiding reinforcement costs. Importantly, implementation of EE will provide lasting benefits to the network on an enduring basis.

We measured expected peak reductions from inefficient home (EPC E) to efficient home (EPC C), which is estimated at 2.25kW of peak reduction on average. To understand the value of peak reduction, we used avoided flex procurement cost for simplicity. Assuming the DSO needs to procure demand turn-down for constrained areas, we expect c.£48m benefits for the network.

Indirect Benefit 1. Savings on customers' bills (c.£11m)

With improvements in EE, customers will consume less electricity on heating and reduce their bills. By improving from EPC E to

C, each home can reduce its average electricity consumption by 1,440 kWh and bill by c.£353 on average each year. While the DNO will not fully fund the EE investments from customers, DNO will provide partial payments to customers, which will improve uptake. Therefore, we have attributed 10% of this benefit to Equal LCT.

Indirect Benefit 2. Carbon savings (c.£0.38m)

With 1,440 kWh reduction of electricity consumption from each home, we expect 1,150 tCO2e carbon reduction through 2026-2040. We assumed that 10% of thisis via EqualLCT. This equates to c.£0.38m value using carbon price.

Key Delivery Costs

Cost 1. EE suppourt to consumers (c.£24m)

EqualLCT will support customers who are willing to make EE improvements. We have assumed the DNO will share half of the network benefits from reduced peak demand (Direct Benefit 1), which equates to c.£500 subsidy to each participating home, totalling c.£24m cost for SSEN. Through Beta, we will test if this is sufficient to 'tip over' enough customers to invest in energy efficiency.

Cost 2. Spatial data mapping (c.£1.25m)

This includes the cost of developing new capabilities and ongoing licensing costs.

Teams and resources

SSEN and Baringa worked together to deliver the previous NIA project, SMS have joined the project to provide detailed insight into the delivery of LCTs at scale.

SSEN-Distribution (SSEN)

SSEN is committed to providing effective and reliable services to its customers. This includes delivering optimal value and supporting the uptake of low-carbontechnologies (LCTs) such as heat pumps. However, integrating LCTs carries the risk of large peaks in demand, which may necessitate substantial reinforcement of the network. SSEN possesses the expertise and incentives to utilise flexibility, making LCT installations and network reinforcements more efficient, thereby reducing peak demand and minimizing costs for customers.

SSEN-D will provide Subject Matter Expertise from:
-Engineering and Investment
-DSO and DFES / Whole System
-Policy and Regulation
-Engagement and Liaison

SSEN-D will also provide a dedicated Project Manager and utilise the expertise of Innovation Manager to deliver all Project Management activities as well as access to LENZA platform

Baringa

Baringa are a specialist energy sector consultancy with deep commercial and market expertise as specialising in the energy industry. In the first Phase they led the approach and analysis and set out a clear vision of how to move forward intothe Alpha Phase. Baringa will lead on WP2, WP3 and WP6.

They are ideally suited to these activities given their role advising government, regulators, and networks on flexibility market development, as well as their work for a wide range of market participants building customer propositions and business models in the energy services industry. They also bring specific capabilities to the project, for instance in working with Citizens Advice to assess benefits of options to deliver national scale energy efficiency interventions and working with banks to develop pilot schemes to research, test & deliver "greenhomes" solutions, leveraging our deep energy, green homes and customer experience.

Baringa will also be leveraging their AI and solutions team to mock-up the proof-of-concept demo as part of EqualLCT. This team have a track record for rapid solutions delivery, for example on the ENA's Connect Direct solution.

SMS

Project partner SMS is strategically positioned to support this project by leveraging their extensive experience from the Clean Heat Streets innovation project. Their work on identifying and addressing barriers to scaling heat pump retrofit delivery --such as financial constraints, consumer engagement, skills shortages and grid constraints, provides a solid foundation for this initiative. SMS's prior work on the Clean Heat Streets project not only equips them with valuable insights, but innovative tools too, where they are piloting the development of an Energy Savings App, which could serve as a route to market to deploy new incentives identified through EqualLCT to consumers. Furthermore, SMS has strong relationships with key stakeholders, including the energy supplier Rebel and Oxfordshire County Council who they will bring into the consortium. SMS already has an experienced installer base in place to support deployment of assets and the capability to aggregate assets to deliver flexibility services to networks. The leadership team at SMS is fully committed to the project, aligning it with the company's overall strategic objectives.

SMS are participating the project both as a heat technology provider and as anenergy aggregator having significant capability and experience in both fields. SMS will lead WP4 Customer Journey and WP6 Trial Design and Planning

Project Plans and Milestones

Project management and delivery

SSEN-D will run project management using standard and established framework for the delivery of innovation projects including best practice methods and tools -- regular management meetings and status reporting, frequent team stand-ups for design sprints, a RAID log, and a stakeholder governance schedule aligned with project work package timelines as detailed in the accompanying project management plan.

The key work packages for Alpha with WP lead indicated are:

*WP1 -- Project Management (SSEN)
*WP2 -- Stakeholder Engagement (Baringa)
*WP3 - Proof of Concept for Digital Platform for LCT supply chain (Baringa)
*WP4 -- Customer Journey (SMS)
*WP5 - CBA and framework for energy efficiency and flex heat incentive (Baringa)
*WP6 - Trail Design and Planning (SMS)

All WPs have clear ownership and accountabilities, with assigned lead partners and clear activities and deliverables. Key dependencies between the work streams are:

*WP2 will provide critical input to WP4 by supporting the detailed design of commercial models and building on pricing strategies and customer value propositions. Engaging with the consortium through WP2 will be essential for identifying the right partner to take the final designed product to market or to the Demonstrator phase, influencing the design of WP7.

*WP3 will inform WP4 by identifying feasible areas for integrating multiple interventions to reduce paybacks. It will also contribute to WP6 by setting specifications for benefits accessible in different regions. WP3 will influence the customer journey design to ensure it meets the specific needs and wants of various segments identified through geospatial visualisation tool.

*WP4 is the core activity in the Alpha phase, where the business model design will determine the touchpoints in the customer journey and outline the details of the CBA.

*All workstreams will feed into WP7 by creating the range of products, services, and candidate sites to be considered in the trial.

Risks and mitigations are set out in the risk register. Risks and issues will be managed using a RAID log, refreshed continuously. The key risks identified are:

1.If we one of our interventions results in unintended consequences for customers with a specific vulnerability
2.If we are unable to gain engagement with DSO flexibility and regulation teams, as well as Ofgem, on alternative models for accessing value pools for customers,we may not be able to find a means to pass DSO and other flexibility value through to customers in a more equitable way, thereby reducing the impact of interventions for many customers
3.If we face challenges in recruiting consortium members and/or customers for trailing the propositions. This could impede our progress to the demonstration phase (Beta phase).

No planned or potential unplanned supply interruptions are anticipated at AlphaPhase, as the work will focus on design and planning.

The project aims to help consumers at risk of being excluded from the energy transition decarbonise by providing access to LCTs and Energy Efficiency measures through sustainable and accessible commercial models. This will ensure customers who were unlikely to benefit from the wide-ranging benefits of the decarbonised system, get the same access to these benefits as the early adaptors and affluent segments of society.

Although we will not have direct engagement with consumers in Alpha, we will work with consumer representative bodies as part of the project partnership and have other organisations that represent consumer interests as part of our consortium (e.g. Citizens' Advice). We will also engage CSE, who will bring their wealth of experience from Smart and Fair to ensure we design an inclusive proportion for the specific needs and wants of our chosen segments.

EqualLCT_R4Alpha_PMBook_ApplicationDraft_Final.xlsx (opens in a newwindow)

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Key outputs and dissemination

By the end of the Alpha phase, we want to achieve the following key outcomes:

1.**Proof-of-concept of the geospatial data visualisation tool --** we will build on SSEN's LENZA tool for Local Authorities and test a proof of concept of new services for businesses to (a) help signpost opportunities for energy transition investment for the benefit of consumers, and (b) build greater insight to feed back into SSEN's DFES process and investment planning. We will test this approach with stakeholders and understand the benefits it could drive if implemented into BAU (led by SSEN)

2.**Test the concept of value stacking to unlock energy transition investment --** we will focus on a specific customer segment (i.e. the "squeezed middle" who are not early adopters, and also not eligible for funding support) and technology type (i.e. heat pumps and energy efficiency) to understand how a combination of cost savings and incentives can come together to enable more compelling customer propositions, which are subsequently more attractive for investment. We will seek to develop a commercial proposition with project partners ready fortesting in a potential Beta phase. This will detail the mechanisms that ensure that each participant in the process is paid for their services and the benefits accrue to the right people. (led by SMS)

3.**An approach to DSO/DNO incentives for energy efficiency --** designing a mechanism for how energy efficiency can be incentivised by DNO/DSOs for the demand reduction that it brings, and how these incentives can be packaged as part of wider heat propositions in collaboration with market participants. It will also consider the underlying process and governance arrangements to support adoption into BaU. This will be grounded in a Cost-Benefits Assessment that determines the network savings achievable and therefore the cost-reflective level of incentive available, to ensure propositions are based in reality (led by Baringa)

Achieving these outcomes would provide valuable insight regarding how the innovations can be taken forward into business-as-usual, either by DNOs or market participants, with or without a need for trialling in the Beta phase.

SSEN will lead project dissemination efforts, with support from the project partners as appropriate. Details of the project will be uploaded to the Smarter NetworksPortal and feature on the SSEN innovation website with specific project learnings being disseminated at the IUK Show & Tell events. In addition, SSEN will host an in-person event to disseminate the learnings and key outputs of all successfully awarded Alpha Phase projects to a wider audience. SSEN will share project successes and discoveries via its social media channels with the external press media publications where appropriate. The project will also engage directly withthe Net Zero Buildings: Clean Heat Directorate in the Department for EnergySecurity & Net Zero (DESNZ) to discuss and disseminate findings.

The project and its outcomes will support and enable competitive markets by:

***Providing transparent data --** using the LENZA platform to make DSO / DNO data more accessible and transparent for market participants, as well as consolidating third party data for ease of access

***Enabling fair data access --** ensuring that the opportunities of the energy transition are accessible not just to large incumbents with investor power and specialist expertise, but also promoted via the open access platform to the widerset of supply chain actors and service providers

***Simplifying DSO services --** providing support and guidance to assist market participants in navigating the sometimes complex opportunities for participation in the energy transition.

Commercials

Intellectual Property Rights (IPR), procurement and contracting (not scored)

The parties agree to adopt the default IPR arrangements for this project as set out in Section 9 of the SIF Governance Framework.

The partners recognise that knowledge transfer is one of the key aims of the SIF, and that the benefits of this project will be maximised by the ability of other licensees to be able to learn from the project so as to create improved outcomes or reduce costs for consumers. The partners do not anticipate that the Alpha Phase (or any potential subsequent phases) will result in the creation of IPR that cannot be freely disseminated and have no expectation of creating income streams or royalties from IPR outside of participation in a competitive marketplace for services that may be informed or stimulated via the outcomes of the project.

We do not anticipate any subcontracting arrangements, tenders, or procurements to be run by any partner during the Alpha Phase.

Commercialisation, route to market and business as usual

Route to Market for the DNO

As set out in Q9, by the end of the Alpha, we will target the following outcomes:

1.Development of new data layers on the LENZA geospatial data visualisation tool
2.Test the concept of value stacking to unlock energy transition investment
3.An approach to DSO/DNO incentives for EE

The mapping stage of EqualLCT will focus on showing areas where EE and HeatFlex can deliver value. If successful, we would seek to launch the Energy Efficiency + Heat Flex mapping services into the LENZA platform; provide access for B2B business users; and progress to offering EE incentives via the appropriate business-as-usual team.

Alpha will demonstrate the long-term value of EE to networks, the level of interest from the market, and the level of interest from consumers in adopting EE when further incentivised by DNOs. It will also assess regulatory barriers and develop a framework for the treatment of EE costs, with the intention that they are established within future price control methodologies. This will include appropriate arrangements for information exchange, payments, validation of delivery and ongoing performance monitoring. If the benefits case of this shows the appropriate level of value, SSEN will engage with Ofgem and or DESNZ to discuss opportunities for including this in RIIO-ED3.

SSEN business teams (e.g. network planning and DSO) will be involved in the project throughout, both to assist in design activity and facilitate adoption into business-as-usual.

There are further use cases identified in the EqualLCTs NIA project that, if the firstone is successful, can be revisited for development and potential inclusion in theLENZA tool at a later date.

Route to market for technology providers

WP4 of EqualLCT will create consumer propositions incorporating value brought by network incentives. These will be incorporated in the trial design as part of WP6. The outputs of this project will be freely disseminated as discussed in Q9.This will give all market participants the opportunity to base their own propositionson the work done in this project. Further learnings will be able to be gleaned from the trials run at the Beta phase to inform and encourage uptake of this approach to LCT roll out. This will be aided by the availability of data in DNO provided tool discussed above.

Whilst the supply chain for energy efficiency and heat technologies is maturing,there is a wide variety of providers of varying scales that could take advantage the EqualLCT approach, encouraging the development of a competitive marketplace.

Commercial readiness of project partners

Project partners SMS are well positioned to support this project as they can leverage their existing work on the barriers to scaling

HP retrofit delivery from the Clean Heat Streets innovation project. They are piloting the development of anapp (Energy Savings App) as part of this project, which could act as a route tomarket to deploy new incentives identified through EqualLCT to consumers. SMS also have strong relationships with the energy supplier Rebel and Oxfordshire County Council who they will bring into the consortium. Lastly, SMS already have an installer base in place to support deployment of assets and the capability to aggregate assets to deliver flexibility services to networks.

Senior Level Support

This project has been presented to SSEN Director of DSO whose remit covers Innovation, System Planning, DSO, and Flexibility. As such there is clear recognition that the reduction of peak heat demand on the network can bring significant benefit to individual customers and the wider network, as well as the environment.

Policy, standards and regulations (not scored)

The project will work within existing regulations and standards. We do not anticipate any need to apply for exemptions or derogations in the current or future phases of this project. The project has been designed to support existing commercial actors bring targeted consumer propositions to existing markets, in compliance with existing regulations and standards. The tools and interventions created in Equal LCT alpha phase will be developed with this objective.

We will, however, monitor closely for the anticipated changes in relevant regulations. Ofgem and DESNZ are currently consulting on new regulations for Demand Side Response Service Providers and standards for energy smart appliances.

WP4 will be actively monitoring these and all relevant changes to regulations and standards to ensure that if any policy changes, proposed or implemented, conflict with the Equal LCT approach we can either engage in consultation or adapt the approach as required. We are not currently aware of any proposed changes topolicy that would necessitate this.

The policy context will also be a core focus for the team. To achieve the project objective of fairness, Equal LCT will look at how some consumer segments are not being well served by current policy support, and what opportunities this creates for innovative commercial offers. For example, in the initial phase of the project, the team mapped the distribution of households in SSEN licence areas that could and could not access current publicly funded retrofit programmes or home-owner grants. The new mapping data to be included in LENZA developed in WP3 will build on this methodology and use the current policy context as an input in the identification of consumer segments that are least well served currently and have the highest potential to gain from novel interventions. Our project's ecosystem partners include stakeholders from different policy areas; socialhousing, inclusive finance, consumer protection, giving the project team insights on how existing policy mechanisms can be used to increase the impact or viability of the novel interventions.

We do not envisage that any derogations will be required to complete this stage or the Beta stage of the project. However, if the project proves that the installation of EE alongside HPs delivers significant value to the network and attractive commercial models encouraging uptake, we feel that we will have a case for the inclusion of a term within the RIIO price control framework for network companies to provide incentives for the installation of EE in areas where it delivers value. EE provides a long-term demand reduction value to networks for a single cost. Unlike flexibility which must be regularly reprocured. Both have a value, but currently only flexibility can be readily implemented.

Value for money

The total project costs, SIF funding requirement, and contribution are:

*Total project costs: £527,772
*SIF funding requested: £449,687
*Contribution: £78,035 (15% contribution through days effort invested)

The breakdown of project costs, SIF funding, and contribution per partner is:

SSEN

*Total project costs: £45,600
*SIF funding requested: £41,040
*Contribution: £4,560 (10% contribution through days effort invested)

Baringa Partners

*Total project costs: £276,722
*SIF funding requested: £234,057
*Contribution: £42,665 (15% contribution through days effort invested)

SMS

*Total project costs: £205,400
*SIF funding requested: £174,590
*Contribution: £30,810 (15% contribution through days effort invested)

The project will draw on findings from many prior innovation projects -- specifically:

* "Clean Heat Streets" showed LCT installers and suppliers struggle to identify opportunities increasing costs and creating inefficiency.
*Project SHIELD showed consumers are keen to reduce their energy bills through new LCT technologies
*Project PIONEER postulated DNO can act as funding and supply chain enablers
*Project EQUINOX showed the large opportunity for using individual payment streams to encourage consumer flexibility

The project will deliver value for money for three key reasons:
***The potential benefits far outweigh the costs of further exploration --** the key benefits of of EqualLCT are set out in Q6 and total over £32m to 2040 for the SSEN area, compared to a funding requirement of £449,687
***We have assembled the right team --** the project team has been specifically assembled with the required skills, prior knowledge, and existing relationships to ensure that this project can be delivered efficiently, and to a high standard.

SSEN-D will provide project oversight and provide key input on network impact and costs, understanding of the upgrade and connection process as well as service and incentive design. They also own and manage the LENZA tool which will provide a key focus for the project.

Baringa Partners LLP devised the project idea and are a specialist energy-focussed management consultancy with long experience delivering innovation projects with GB DNOs. They are ideally suited to conducting this work and will be able to do so in an efficient manner and with confidence in successful delivery.They have deep expertise in the commercial and regulatory aspects of this project(having previously developed the industry CEM and whole systems CBA tool), as well as rapid digital tool development (e.g. Connect Direct the industry digital solution for LCT connection applications).

SMS can leverage their existing work on the barriers to scaling HP retrofit delivery(financial, consumer engagement, skills, grid constraints) from the Clean Heat Streets innovation project, which will allow them to lead WP 4.

They are also piloting the development of an app (Energy Savings App) as part of this project, which could act as a route to market to deploy new incentives identified through EqualLCT to consumers. This will be key enabling route to market to design of the trial in WP6.

SMS have strong relationships with the energy supplier Rebel and Oxfordshire County Council who they will bring into the consortium (WP2). Lastly, SMS already have an installer base in place to support deployment of assets and the capability to aggregate assets to deliver flexibility services to networks.

The project is costed competitively -- The budgeted days and cost are based on deep experience amongst the team of running multiple similar scale projects.The partners are aware of the methodologies and tools they will follow and are confident efficient costs have been proposed. In the case of Baringa Partners, they are part of SSEN's framework contract supplier base, with rates tendered competitively via an OJEU-compliant process.

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

Equal LCT Alpha - Final Report.pdf - 3.1 MB
SIF Alpha Round 4 Project Registration 2025-05-07 10_15 - 87.0 KB

Documents uploaded where applicable?

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