SIF Alpha Round 2 Project Registration

Date of Submission

Dec 2023

Project Reference Number

10085252

Initial Project Details

Project Title

Local Energy Oxfordshire - Neighbourhoods, (LEO-N); Alpha R2

Project Contact

Dot Revill - dot.revill@sse.com

Challenge Area

Accelerating decarbonisation of major energy demands.

Strategy Theme

Net zero and the energy system transition

Lead Sector

Electricity Distribution

Other Related Sectors

Electricity Distribution

Project Start Date

01/10/2023

Project Duration (Months)

6

Lead Funding Licensee

SSEN - Southern Electric Power Distribution Plc

Funding Licensee(s)

SSEN-D - Scottish and Southern Electricity Networks Distribution

Funding Mechanism

SIF Alpha - Round 2

Collaborating Networks

Scottish and Southern Electricity Networks Distribution

Technology Areas

Commercial

Modelling

Stakeholder Engagement

Project Summary

Project LEO-N addresses the accelerating decarbonisation of major energy demands challenge by developing an innovative approach to creating an enabling environment for homes, small businesses and communities to transition to Net Zero, at pace and scale. At present, there is no clear route to guide consumers, nor is there the supporting infrastructure to support the transition at a local level. Working with all the key actors, LEO-N will build on our earlier local energy projects by adopting a systems innovation approach, to develop the tools, commercial arrangements and supporting local governance structures to drive the Net Zero transition at pace.

Add Preceding Project(s)

10058729 - Local Energy Oxfordshire – Neighbourhoods (LEO-N)

Add Third Party Collaborator(s)

Low Carbon Hub

University of Oxford

Oxford City Council

Oxfordshire County Council

baringa

Project Budget

£534,619.00

SIF Funding

£481,159.00

Project Approaches and Desired Outcomes

Problem statement

The drive to Net Zero is currently highly fragmented with individual householders, businesses, communities, local authorities and networks working in isolation, resulting in a slow, fragmented, non-inclusive and inefficient transition.

Our flagship Industrial Strategy Challenge Fund (ISCF) funded demonstration of local energy systems -- Project LEO (Local Energy Oxfordshire), has shown how much more can be achieved when actions are co-ordinated, not simply at a strategic level but also through specific tactical actions in each premise, street ,community and local neighbourhood.

By collaborating, the optimal solution for decarbonisation can be established at a local level which considers the broader infrastructure, community energy resources and collaboration opportunities.

The problem has evolved to: "How do you scale the benefits identified", with key recommendations from LEO being used to inform a model that brings together co-ordinated engagement, decision support and delivery to make Net Zero happen at a local level, namely:

1. Supporting individual homes and businesses with the planning, coordination, funding and installation of energy efficiency measures and Low Carbon Technologies (LCTs) using an optimal approach to deploy a coordinated set of building fabric and smart technology options - known as FutureFit.

2. Creation and implementation of Smart Community Energy Scheme Services (SCES) which enable community level management of properties, community resources and existing flexibility to optimise energy use/generation/storage at the grid edge.

3. The Local Net Zero Coordination (LNZC) consolidates and informs SCES decisions, providing a component of institutional architecture that complements the Regional System Coordinator (RSC) role by informing and implementing county-wide Local Area Energy Planning (LAEP) strategies at a local level.

Together this creates an overall system to make, and facilitate deployment decisions at home, street, community, and regional level. The LEO-N model will maximise the use of existing network capacity, deferring investment and informing future investment decisions. This model will be defined, demonstrated and packaged to allow its deployment across GB.

Discovery has evolved our understanding of the problem:

- Our Cost-Benefit Analysis (CBA) has suggested a significant economic impact if the project is successful and scaled with up to £68.7bn savings across GB between 2025 and 2050 and potentially 4.8GtCO2e avoided.
- Ensuring the LEO-N Model aligns with ongoing industry initiatives like the Regional Governance Reform and LAEPs;
- By creating a new role - Grid Edge Coordinator, working in concert with the LNZC to identify opportunities and make things happen at a local level;
- By identifying the opportunity to align with the Pathfinder Places 'FutureFit One Stop Shops' (FOSS) project, to drive SCES participation.
- By developing an understanding of how the annual drumbeat of network investment at the Low Voltage (LV) level supports the development of SCES deployments and vice versa.

The LEO-N model is describedin Q3 appendix (slide 2). Discovery, has shown how our main project partners map onto the delivery system needed to:

- manage and coordinate network planning alongside development and infrastructure planning; especially at the local and LV levels.
- coordinate action at the Grid Edge, working with communities to deliver FutureFit buildings at scale to creates SCESs for the benefit of occupiers and the network;
- encourage FutureFit and SCES Providers to develop in response to the opportunities identified.

LEO-N to continues to address Challenge 4 by enabling FutureFit and SCES implementation, which together with highly local energy planning will accelerate decarbonisation of major energy demands. LEO-N takes a systems approach to innovation, Discovery flagged how nascent key elements of the system are, e.g. the development and governance of LAEPs.

Innovation justification

Project LEO-N addresses the 'accelerating decarbonisation of major energy demands' challenge by developing an innovative approach to creating an enabling environment for homes, small businesses and communities to transition to net zero, at pace and at scale to help deliver UK's Net Zero targets.

At present there is no clear route to guide consumers nor is there the supporting infrastructure to support the transition at a local level. LEO-N will develop the Smart and Fair Neighbourhoods (SFN) from Project LEO by adopting a systems innovation approach to develop the tools, commercial arrangements and supporting local governance structures to drive the Net Zero transition at pace in Oxfordshire. The three key elements of the LEO-N approach, as described in Q2, FutureFit, Smart Community Energy System (SCES) and Local Net Zero Coordination (LNZC) need to come together in a coordinated manner to optimise use of the network and deliver Net Zero fairly and efficiently.

Bringing the LEO-N components together presents a complex systems innovation challenge which must be addressed if we are going to deliver an efficient and fair transition, making optimal use of existing network capacity and further leveraging future investment plans. The components of the LEO-N system are shown in the diagram on slide 2 of the Appendix, only by bringing them together as part of an overall system will we be able to fully realise the benefits.

Project LEON takes a 'systems innovation' approach to this challenging problem:

- Developing the FutureFit approach to ensure it develops services that are suitable for a diverse set of customers;
- Enabling local energy trading and flexibility services to manage demand through in introduction of SCES
- Creating new integrated building and network models to give a more complete understanding for the networks, planners and communities;
- Using customer data and retrofit options along with recently developed spatial tools to identify new options to scale from street level solutions to county-wide strategies;
- Developing new institutional arrangements to support coordination and drive local delivery.

The system includes:

- Using the FutureFit approach to help households and small businesses to decarbonise: with support on the best route for that premises including new financing mechanisms to allow them to transition to Net Zero.
- Local coordination and trading lowers peak demand reducing constraints on the wider network through a SCES.
- Networks need new integrated building and network modelling to assess the impact of FutureFit measures on the LV network improving operational efficiency and reducing overall system costs.
- Enabling existing capacity to be used more effectively, potentially, avoiding the need for expensive reinforcement.
- New arrangements to allow local actors to work together with networks to deliver a whole system solution at scale. These new arrangements include new institutional arrangements where the local energy system can be managed through a Local Net Zero Coordination architecture at the Regional, District and local scale. In addition to this we propose a new Grid Edge Coordinator role that can work at the Low Voltage level to spot opportunities for consumers whilst supporting delivery at pace and scale in their neighbourhoods.

In the Alpha stage we will:

- Continue to develop the LEO-N model as described above.

- Refine our approach to quantifying the costs and benefits, with the help of our additional partner, RetrofitWorks.
- Use a Minimum Viable System (MVS) approach to develop a model of how electricity networks plan their investment cycles to allow local authorities and communities to align their investments and/or inform the network investment, thus enabling the benefits for network customers and the wider system.

Prepare trials for the Beta stage in two areas of the UK to test application of the LEO-N models across different geographic, demographic and economic areas.

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

Financial - cost savings per annum for users of network services

Environmental - carbon reduction – direct CO2 savings per annum

Environmental - carbon reduction – indirect CO2 savings per annum

Revenues - improved access to revenues for users of network services

Revenues - creation of new revenue streams

New to market – products

New to market – processes

New to market - services

Impacts and benefits description

To quantify the benefits from innovation developed in LEO-N, we have based the counterfactual around five assumptions:

1. Network Reinforcement is carried out as set out in RIIO-ED2 Business Plan but is not well enough coordinated with the needs of customers who are striving to decarbonise, especially at the low voltage and secondary substation level. This could hinder uptake of Low Carbon Technologies (LCTs) due to thermal and voltage constraints.

Metrics:

- Actual spend on network re-enforcement in Oxfordshire compared to RIIO-ED2 Business plan
- LCT volume update in Oxfordshire compared to Distributed Energy Future Scenarios (DFES).

2. Sub-optimal use of existing network capacity results in greater losses and power quality issues (e.g. higher daily variation in voltage) caused by uncoordinated operation of community owned and behind-the-meter generation, flexibility and demand that exacerbates peak generation and demand conditions. This results in a limited hosting capacity for further decarbonisation of heat, transport and generation before triggering network reinforcement.

Metrics:

- Peak-to-average ratio of daily power flows profiles in the test areas before and after deployment of FutureFit and SCES.
- Daily distribution of voltage range at Low Voltage (LV) busbar before and after deployment of FutureFit and SCES.

3.Roll-out of LCTs is done without consideration of future requirements and consequent enablement of flexibility. Flexibility for in-front-of-meter services is only accessible via an aggregator and not visible to the network or the system operator 1.until the bids are made in response to procurement of flexibility services.

Metrics:

- LCT volume update in Oxfordshire compared to DFES scenarios.
- Average volume of flexibility per customer participating in delivery of flexibility services before and after deployment of FutureFit

and SCES.

4. Revenue or reduced network related costs shared between the aggregator providing route to markets and the customer with flexibility -- those who can afford flexibility benefit the most.

Metrics:

- Average annual revenue /recued cost per customer from delivery of flexibility services before and after deployment of FutureFit and SCES.

5. Customers' energy bills are mainly driven by wholesale electricity prices and local generation receives power purchase agreements from external off-takers, priced at the current wholesale market prices, or requires big enough demand nearby for private wire. Metrics:

- Proportion of energy consumed on customer premises supplied from behind-the-meter generation or allocated energy from local SCES
- Modelled reduction in energy bills based on cost of energy imported to customer premises/community.

To quantify the benefits from innovation developed in LEO-N, we have based the counterfactual around five assumptions:

1. Network Reinforcement is carried out as set out in RIIO-ED2 Business Plan but is not well enough coordinated with the needs of customers who are striving to decarbonise, especially at the low voltage and secondary substation level. This could hinder uptake of Low Carbon Technologies (LCTs) due to thermal and voltage constraints.

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- Proportion of energy consumed on customer premises supplied from behind-the-meter generation or allocated energy from local SCES

- Modelled reduction in energy bills based on cost of energy imported to customer premises/community.

Innovation proposed for development and demonstration in LEO-N is anticipated to deliver net benefit of up to £68.7bn and avoid 4.7GtCO2e between 2025-2050 if scaled up to the GB level. In the Discovery stage, the estimate of cumulative net benefit from LEO-N is based on:

- Savings from deferral in planned network investment achieved through increase in volume and coordination of new generation and new flexibility at the LV level
- Coordination of electricity flexibility, consumption and generation is expected to reduce peak loading on the network, consequently reducing losses, reducing the need for additional capacity and improving voltage profile of supply which also delivers demand reduction.
- Savings achieved from avoided import of electricity by retail suppliers to the customers' premises due to increased self-consumption.

In Alpha, we plan to refine the qualitative and quantitative costs and benefits, as listed in Q4 expected from the complete LEO-N model as the individual elements will be further developed and their operational models defined as well as the additive benefits from considering the LEO-N model as a whole.

Importantly, in Alpha we will further investigate, where the various costs and benefits will materialise as to be successful, LEO-N will involve actors from across the entire energy supply chain.

Teams and resources

All Discovery Project partners will continue onto the Alpha Phase. We will also be expanding the project team's skillset through the addition of Retrofit Works.

SSEN (Project Lead) – SSEN have delivered a successful portfolio of innovation projects covering a broad range of topics including Project LEO, which developing a locally based approach to decarbonisation in Oxfordshire. As a DNO, SSEN will be responsible for the DNO planning and DSO/DNO operations within the LEON model. It will also run the investment timetables across the three key time horizons. SSEN with strong support from all partners will take the lead in ensuring that the LEON model delivers outcomes which are accessible for all consumers and support a Just Transition.

Low Carbon Hub IPS Ltd (LCH): LCH are bringing their extensive knowledge and experience in renewable energy development and asset management, innovative investment models, and development of new products and services. In the LEON model, LCH uses the community benefit profits from its renewable energy business to deliver the Grid Edge Coordinator role, working with its 45 community group shareholders to find and support opportunities for SCES development in primary and secondary substation areas.

University of Oxford will lead the consortium on rapid development of SCES and the supporting framework by leading on iterative design and deployment of the LEO-N ecosystem, using the LEAN Transition approach.

The Electrical Power Group within the University developed the Minimum Viable System (MVS) concept and Mapping Actions for System Transformation (MAST) toolkit which are designed to be used as part of an agile 'build-measure-learn' approach to system transformation that was utilised throughout Project LEO.

Baringa: will continue to develop and refine the Cost Benefit Analysis of the LEON approach. They will also contribute to development of the SCES use cases and how their development interacts with DSO/DNO planning, connections and incentives.

Using their experience in LAEPs, statutory planning and local engagement, **Oxfordshire County Council and Oxford City Councils** will develop and implement the Local Area Energy Planning approach ensuring that LAEPs these fit together with local development and infrastructure planning and are agile across geographic scales. Oxford City Council is also leading on the FOSS project that will put the institutional framework in place to support the rapid scaling up of FutureFit services to households and businesses.

Our new partner **RetrofitWorks (RFW)** will bring its nationwide understanding of how to develop successful retrofit schemes in different geographies and economies and work with LCH and the Councils to develop the full FutureFit product, services, and standards alongside the delivery of the FOSS stage 2 project. Addition of Retrofit Works addresses the additional partner requirement for Alpha

In addition to the project partners, **the following Stakeholders** will be engaged throughout the Alpha Phase.

- Potential SCES operators
- Parties included in LEAP planning
- Trial participants
- Ofgem – Local Governance Reform
- Aggregators
- Energy Suppliers

Project Plans and Milestones

Project management and delivery

SSEN will take the lead on all Project Management activities. We will use the tools provided by UKRI (Risk Register, Project Plan), as well as tools developed internally (Gantt Chart, Project Costs, Finance Tracker) to regularly monitor project performance.

We will continue with weekly project sessions to review progress and collaborate as a group. We will support the team sessions with focused Workpack collaborations, as well as face to face sessions to stimulate thinking and provide effective challenge while developing outputs.

Workpack Dependencies:

While each element of the LEON model can be developed as a standalone output, the project's main aim is to demonstrate the value of coordinated delivery of each of the 'LEON pillars' as seen in Q3 appendix, slide 2.

We have therefore combined our Discovery workpacks which focused on developing individual LEON pillars into Workpack 2 - Coordinated development and delivery of the LEON Model, to ensure the most efficient resource management, as well as to ensure delivery of a cohesive, coordinated model, avoiding potential duplication

Weekly sessions, as well as effective use of PM tools will allow the project team to continue to monitor cross deliverable dependencies, and to ensure outputs complement each other as a result. This can be seen within the Gantt Chart – e.g., the 'Quantification of benefits' activities have been scheduled for the later part of the Alpha phase, to allow work on fully developing the 'LEON model' individually during the early stage of the project.

Risks and Barriers:

A number of risks and barriers have been identified. The top scoring items can be seen below. Full list of risks and barriers, including mitigating actions identified available in the LEON Alpha PM Book.

- Barrier: Substantial local generation will be required to enable SCES at scale.
- Barrier: DNO ability to connect large amount of new LCTs in required time scales caused by planning delays, workforce, material availability and network capacity
- Risk: The ability of SIF funding to support deployment of behind the meter measures.
- Risk: Just Transition - A LEON model can be viewed as a complex model by consumers; it also requires a level of funding from the customer (FF, SCES membership etc). There is a risk of leaving vulnerable, fuel poor, digitally excluded customers behind.

Stage Gates:

Half-way through the Alpha phase (around January 2024) a UKRI mid-point review session will be held. This session will focus on delivery against plan, risk and barriers review, and financial performance.

As well as that, each partner will be expected to hold a similar session with their Leadership team to provide an update on delivery against plan, expected that trial requirements, and sign off will be sought for Beta budget sign off. Risks and barriers will also be discussed during that session.

An End of Phase session will also be held by UKRI, following a similar agenda to the mid-point review. At that point, the Project Team will be informing UKRI of their plans for applying for Beta stage.

The Project is not expected to impact on customers reliability of supply during the Alpha Phase.

There will not be any direct impact on customer access to energy services during Alpha Phase. This stage of the project will focus on ensuring any such impact as mentioned above will be kept to the minimum during the Beta Phase. It should be noted that a key criteria in the development of the LEON model will be inclusivity to ensure that the new services are accessible for all.

Key outputs and dissemination

The Alpha Phase proposes to focus on preparation for small-scale real-life trial in two areas within UK. These demonstrators will test application of the LEON models across different geographies, demographic and economic areas.

With the help of an additional partner – RetroFit Works, the project team will aim to evidence the benefits of a locally based energy system.

We will also test what measures, (e.g., regulatory changes, commercial models, digital tools, skills and supply chain provisions) will be needed to deliver the LEON model at scale and pace, and to ensure its alignment to the ongoing Local Governance Reform proposals.

Using a shadow approach, we will model a process of how electricity networks plan their 12 month/3-year/5-year investment and how Local Authorities and communities can align their investment/or inform the networks investment, thus bringing benefit to network customers.

Workpack 2 - Coordinated development and delivery of the LEON Model

- Parameters for necessary and sufficient LEO-N ecosystem Trial Sites Engaged (two)
- Trial requirements and success criteria proposal
- Efficiency of investment
- Stakeholder Engagement and Inclusivity Report
- LEO-N Landscape and Systems Diagram

2.2 Smart Community Energy Services

- SCES use cases
- Updated SCES model including roles, skills, knowledge, consumer engagement.
- SCES customer journey

2.3 Local Net Zero Coordination

- Updated LNZC model including roles, skills, knowledge.
- Develop a Grid Edge Coordinator role (including skills, knowledge, interactions)

2.4 FutureFit

- FF – SCES integration model (information flow, interactions)

Workpack 3 – Cost Benefit Analysis

- CBA narrative (including counterfactual)
- CBA scenarios
- CBA data sheet

Dissemination:

We will be promoting the work using a multi-channel and multi-party approach, depending on the intended audience. Examples include:

- Amplification of UKRI, IUK and Ofgem official SIF communications
- Press releases, websites and social media for general awareness
- Local media, social media, door drops, posters and word of mouth
- Taking learning from the FOSS project, a very local approach may be required for community communications, local feedback and awareness of activities to build trust.

External engagement with stakeholder and other projects:

- Collaboration with the FOSS and Dynamic Network projects;

- Engagement with all other related SIF projects (like Inform, PRIDE);
- Stay aware and aligned to development around LEAPs and Local Governance Reform

Participant Engagement:

- Local engagement will be conducted by Low Carbon Hub, Retrofit Works, Oxfordshire;
- County Council and Oxford City Council to identify potential trial sites, including engagement on willingness to participate and identify potential barriers.

Commercials

Intellectual property rights, procurement and contracting (not scored)

To ensure clarity is provided to the Project partners, UKRI and Ofgem regarding the intellectual property (IP) landscape, the Project is using an IP register to track the Background IP provided to the Project, the Foreground IP the Project generates, and the use and access rights to all this IP.

The main contract governing the Project (the Collaboration Agreement) will include detailed, mutually agreed terms governing IP that are in line with the SIF Governance Document. For the Discovery Phase, all the IPR arrangements will follow the default recommendations of Chapter 9 SIF Governance Document.

Commercialisation, route to market and business as usual

LEO-N is taking a systems innovation approach to accelerate the transition to Net Zero by focusing on developing novel functional and commercial arrangements between organisations, institutions, and communities. Some elements of these functions already exist in isolation, but are uncoordinated and fragmented. Therefore, the commercialisation of LEO-N is mainly concerned with scaling up and the commercial feasibility of a better integrated, and coordinated operating ecosystem.

FutureFit is expected to scale up its operation and strengthen its viability by taking opportunities to access the market through:

1. Organic bottom-up growth from exposure to interested communities directly and via installers, commercial aggregators of flexibility, hardware provides (e.g. EV chargers and batteries) and potential partnerships with retail energy supplies.
2. Coordinated approach to rollout of FutureFit in areas identified by the Grid Edge Coordinator as appropriate for accelerated transition which takes into consideration the consensus at the local level.

Revenue streams required for the operation FutureFit in a BaU mode are based on commercial partnership with local authorities, supply chain, installers, retail energy suppliers and network operators, as well as utilisation of available grant funding and leveraging value of data streams enabled by FutureFit data interoperability principle. The basis of the FutureFit model has been demonstrated to be viable and is agnostic to geography and is anticipated to be transferable.

Similarly, to FutureFit, the **Smart Community Energy Scheme Service** provider has two main routes to market:

1. Via Local Net Zero Coordination to be utilised as a solution for releasing network capacity in constrained areas as an alternative to network reinforcement or to increase hosting capacity for low carbon technologies ahead of identified constraints.
2. Via Grid Edge Coordinator to deliver benefits for community where there is an opportunity to maximise use of flexibility for self-consumption of local generation.

In both commercialisation routes, the viability of the scheme is driven by the cost of operation, means of monetising benefit to DNO/DSO, value proposition to customers, revenue from use of flexibility and commercial arrangements with retail energy suppliers. Some of the fundamental functions of SCES services individually have been commercially operating throughout the GB and the experience from these schemes will be used to inform the development of the services. Under current regulatory and policy landscape, the project is anticipating the SCES Services to expand (in scale and function) continuously as a stand-alone entity, as part of retail energy supplier offering or DSO function, permitting the market conditions are accommodating.

Net Zero Grid Edge coordinator is assumed to be a community interest entity which supports communities in their transition to Net Zero by facilitating coordination with the Local Net Zero coordination function at the community level. Function of the coordinator is enabled through profit raised from community projects and membership fees from accredited/approved installers, coordinators and supply chain organizations involved in the delivery of the transition.

Local Net Zero Coordination is an institutional arrangement that enables interaction between local authorities, local partnerships, networks or other utilities to manage a deliverable strategies for transition to Net Zero at speed and scale. The need for such institutional arrangement is enabled through the member organisations that dedicate their resources to leverage the exchange of data and coordination of network investment with development plans, LEAP and needs of local communities. The route to market for the Local Net Zero coordination is enabled by the mutual interest of members and expected to function as long as the members see a collective benefit from participation. Such institutional arrangement can be replicated outside of the LEON project area as the participating roles exist across the GB.

Policy, standards and regulations (not scored)

During the Discovery stage, project team did not identify any policy or regulatory barriers that may prevent the implementation of the innovation under LEO-N. The project team will continue monitor the relevant policy and regulatory changes and ensure that any barriers and impacts on the development of innovation in LEO-N are identified and their impact considered. This is a fast changing and dynamic area where there is an ongoing development of the policy and regulatory landscape which may impact the future phases of the project, such as:

ELEXON BSC modifications

A number of benefits enabled by SCES services could require approval (but not prohibited otherwise) of the Elexon BSC modification P441 'Creation of Complex Sites Classes', which will provide clarity and consistency on approach to netting of Imports from Exports for multiple Metering Systems registered in Supplier Volume Allocation.

Energy Smart Appliances Standards

BSI standards PAS 1878 and PAS 1879 are designed to enable demand side response from smart appliances, EV chargers, energy storage and electrical heating. Consequent additions and modification to the standards related to energy smart appliances (e.g. minimum cyber security regulations) could have an unexpected effect on interoperability of existing systems.

Future of Local Energy Institutions and Governance

The role of local authorities in participation of LEAP organisation needs to be mandated at the level of central Government to ensure local authorities have sufficient resources to engage with LEAP process and support the role of Local Convener.

Future of Distributed Flexibility

Ofgem has consulted the industry on the long-term vision for common digital energy infrastructure, centering on support, promotion and integration of flexible resources at the distribution level, including consumer energy resources such as electric vehicles and heat pumps. The vision for infrastructure is based on three archetypes with varying degree of centralisation and corresponding involvement of institutional roles. The outcome of the consultation will have to be considered in further development of FutureFit, SCES services and the function of Local Net Zero Coordination, particularly around points of integration with the wide energy system (both organisational and digital).

Review of Electricity Market Arrangements (REMA)

Ofgem has consulted the industry on the potential changes to existing electricity market arrangement, which includes potential changes to the role consumers and level of their participation in the market, structure of the wholesale market and opportunities for nodal or zonal pricing. Depending on the outcome of the final consultation, REMA may have an impact on the operational and business model of SCES services, but we do not anticipate any significant barriers.

Local Energy Bill

The bill is intended to enable electricity generators to become local electricity suppliers and encourage local supply of electricity by introducing additions in the Electricity Supply Act 1989 specifying the conditions for local electricity supply license. Proposed bill has undergone through first reading at the House of Commons and requires further review on the House of Commons and House of Lords before it is finalized and the impact on the SCES business model can be assessed.

Building standards

Recent changes to the Statutory Guidance on Conservation of Fuel and Power introduce additional requirements for energy efficiency from building fabric perspective and heating systems. These changes are supporting the objectives of innovation developed under LEO-N and any further changes to building standards towards decarbonisation and energy efficiency will have positive impact on the objectives of project LEO-N.

Value for money

Total project cost will be £534,619. We are requesting £481,159 of SIF funding, with the partnership providing the 10% compulsory contribution of £53,460. Each partner will be meeting their contribution through 'time in kind' or reduction of rates.

This project is closely linked to Pathfinder Places' FOSS project. FOSS looks at implementing solutions for barriers with: finance, supply chain, capability and skills, perception, policy, climate resilience and data ecosystem to allow large scale roll out of FutureFit. This project has completed its first stage, and the intention is to apply for further funding for stage 2. These projects are complementary to each other.

Where possible, we have benchmarked costs received against those used by equivalent suppliers who are already engaged on SSEN's frameworks.

· SSEN (lead) costed their work at £54,168 and are requesting £48,751 of SIF funding. £5,417 of compulsory contribution will be met through 'time in kind'.

Low Carbon Hub have costed their work at £129,998 and are requesting £117,000 of funding. £12,998 of compulsory contribution will be met through 'time in kind'.

LCH will be looking to use Contractors at an approximate cost of £12,000 to deliver the following:

§ Scaling up the Community Action Plan for a Zero carbon energy system (CAPZero) LCH has previously worked with Energy Systems Catapult (ESC) on the CAPZero as one of the SFNs from Project LEO. Within LEON, LCH would like to investigate how to replicate and scale this approach in WP2.3,

- SCES data coordination: work with Fractal Network on how to replicate and scale the approach to SCES data coordination which was trialled for Osney Supercharge during the LEO project.
- Scope out the potential SCES service providers for Beta Trials. This will be dependent on the SCES use case, therefore not suggested subcontractor is being proposed at this time.

University of Oxford (EPG) costed their work at £100,000, requesting £90,000 of funding. £10,000 of compulsory contribution will be met through 'time in kind'.

Baringa Partners costed their work at £189,997, requesting £170,997 of funding. £19,000 of compulsory contribution will be met through 'time in kind'.

Oxford City Council costed their work at £19,942, requesting £17,948 of funding. £1,994 of compulsory contribution will be met through 'time in kind'.

OCC will be looking to use subcontractors at an approximate cost of £6,128 to provide Coordination support while their permanent role is being secured. Should the recruitment conclude before the start of Alpha phase, these costs will be moved to 'Labour costs'.

Oxfordshire County Council costed their work at £19,822, requesting £17,840 of funding. £1,982 of compulsory contribution will be met through 'time in kind'.

Retrofit Works costed their work at £20,692, requesting £18,623 of funding. £2,069 of compulsory contribution will be met through 'time in kind'.

Any use of pre-existing assets or facilities

· LV network data gathered and modelled in LEO

· LEO Mapping Tool

Associated Innovation Projects

○ Yes (Please remember to upload all required documentation)
◉ No

Supporting documents

File Upload

SIF Alpha Round 2 Project Registration 2024-05-29 12_56 - 91.5 KB
SIF Alpha Round 2 Project Registration 2024-01-18 9_11 - 91.3 KB
SIF Alpha Round 2 Project Registration 2023-12-12 10_45 - 91.2 KB
LEO-N Alpha R2 Application.pdf (1) - 449.5 KB
LEO-N Alpha R2 Application.pdf - 0.0 bytes
LEON_AlphaR2_ApplicationFINAL.pdf - 0.0 bytes
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