SIF Beta Round 2 Project Registration

Date of Submission

Sep 2024

Project Reference Number

NGED/PHASED SWITCH SYSTEMS/SIFIESRR/RD2_Beta

Initial Project Details

Project Title

Phased Switch System

Project Contact

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Challenge Area

Improving energy system resilience and robustness

Strategy Theme

Optimised assets and practices

Lead Sector

Electricity Distribution

Project Start Date

01/09/2024

Project Duration (Months)

40

Lead Funding Licensee

NGED - National Grid Electricity Distribution

Funding Mechanism

SIF Beta - Round 2

Collaborating Networks

UK Power Networks

National Grid Electricity Distribution

Technology Areas

LV & 11kV Networks

Conductors

Network Automation

Project Summary

The Phase Switch System allows for dynamic phase reconfiguration of a Low Voltage (LV) feeder cable to reduce phase imbalance. Reducing phase imbalance;

- reduces the load in the most heavily loaded phase, decreasing the chance of incorrect fuse operations
- improves the utilisation of the cable's capacity, deferring reinforcement
- reduces losses on the LV feeder and associated CO2 emissions
- reduces the likelihood of customer voltage issues preventing participation in flexibility serivices or other markets

This project further develops and tests an existing protype to market readiness while providing a support tool for planning and optimisation of deployment.

Project Budget

£3,430,000.00

SIF Funding

£3,080,000.00

Project Approaches and Desired Outcomes

Solution statement and solution focus

The Low Voltage (LV) electrical distribution network serving homes and businesses is a three-phase alternating current system. Homes and businesses are each connected to one of the three phases and the selected phase changes from property to property down the street to try to spread load evenly between the phases. When the electrical loads across the three phases are not even, the imbalance reduces the Hosting Capacity (HC) of the network for further Low Carbon Technologies (LCTs) which can make the energy transition slower and more expensive as network reinforcement is required to provide the necessary capacity.

With load imbalance, the highest phase current is most vulnerable to sudden surges and high load, which can occur at any time, resulting in substation fuses blowing causing blackouts. Thus, reducing the magnitude of this high phase current is crucial for enhancing the resilience of low-voltage networks. Network imbalance also results in more network losses and voltage irregularities.

Our understanding of the problem has evolved during the the previous Phased Switch System (PSS) NIA project which has demonstrated the prototype's benefits. Increased LV monitoring of distribution substations has shown there are already substations with significant imbalance before this is increased by LCT deployment at volume, confirming the need for such a device.

The NIA deployment showed the PSS;

- boosts HC on today's typical feeder by 202A on average.
- provides 31A more additional capacity than reinforcement with 500A cables due to the active nature of the solution.
- can reduce instantaneous losses by 3.2 kW. This equates to an estimated 28 MWh annual energy savings for one feeder.
- can manage dynamic imbalance profiles that cannot be addressed by transferring customers permanently from one phase to another due to the frequency of required changes.

Further details are included in the CIRED 24 paper.

A final issue relating to imbalance is that where EV chargers or Solar photo-voltaic (PV) generators are not evenly distributed across phases. Clustering PV on one phase raises voltage more than balanced distribution. High voltage triggers automatic shutdown of EV chargers and PV generation. The impact varies; customers with fewer panels on their phase remain unaffected, while others may face restrictions on EV charging and/or energy trading. This project investigates the degree to which the PSS mitigates voltage issues as a natural result of reducing phase imbalance. This would benefit customers by ensuring fairer access to markets.

In the Beta phase, DNOs and IDNOs, will have their needs addressed by implementing upgrades informed from NIA learning and widened ONO participation in planned workshops. Upgrades to the prototype will make it smaller, more robust, and less noticeable. Control functions will improve, and a planning tool will optimise implementation. This project advances from early prototyping to business implementation with an improved PSS, updated policies, and location selection planning tools.

The project builds on two previous projects

- Smart Urban Networks - (SUN) -- unlocking capacity for low carbon technology in the electrical energy network: DESNZ (formally BEIS) Government Energy Entrepreneurs Project.
- Phase Switch SystemPSS (PSS): UK Power Networks (UKPN) NIANetwork Innovation Allowance Project.While DNOs and IDNOs are the main users of the PSS, other stakeholder impacts have been considered and reflected in the project activities.

Innovation justification

The PSS Solution is a novel answer to a significant LV network challenge. As customers adopt Low Carbon Technologies (LCTs) there is a risk of increased phase load imbalance reducing hosting capacity and triggering reinforcement.

However, the PSS may provide value for money by providing a cheaper alternative that also reduces losses and the risk of non-fault fuse operations.

The PSS prototype, previously trialled as part of an NIA project, will be taken to the next level by improving the technical design to reduce the footprint, simplify and improve operation while eliminating noticeable flicker. The Beta project will undertake lab and field testing, and create the policies for wider rollout reflecting the revised design and trial results. However, while the PSS shows considerable promise, the project risks and costs, along with the project scale and duration suggest that SIF is a more appropriate funding mechanism than NIA or BAU funding.

The project addresses Challenge 3: Improving energy system resilience and robustness ; Strengthening the UK's energy system robustness to support efficient roll out of new infrastructure. It also will add to the wider ability of consumers to adopt low carbon technologies.

The PSS strengthens the robustness of LV networks through its ability to minimise the maximum phase current. This mitigates the risk of premature fuse blowing or phase overload.

As PSS was not an Alpha project, we have embedded sharing of information into our project plan. We intend to work with UKPN but also share our insights and learning during the project with the ENA and other DNOs, providing them all with the relevant information to make informed decisions about adopting PSS as a solution.

Innovation comes from the fact that this device has the potential to change the way DNOs manage the LV network in a way that supports Net Zero objectives. The scale of the trials and testing in PNDC makes this the first trial of its size. Additionally the coordinated planning of site locations to maximise benefit is novel.

Phase 1 trialled TRL 6 PSSs on UKPN's distribution network. Beta will address the learning points and enable progression to TRL 7-8, boosting investor confidence for a Series A funding raise in 2027. Accelerating manufacture at the right time to meet emerging LV network reinforcement markets.

The PSS design met ONO and customer needs for Phase 1, and the partnerships established enabled a PSS certification plan to be constructed for Beta. Market readiness is at CRL6, Beta will advance to CRL7, and the subsequent Series A raise in 2027, assures progression to CRL8-9.

The PSS's capability to reinforce through balancing phases at Phase 1 demonstrated IRL6 using network data. Beta enables progression to IRL7 by providing the arena for LCE, NGED and Nortech to collaborate and integrate PSS data on NGEDs servers.

The scale of the project will be 7-9 field trial sites, tested over at least a 12 month period, this will be coupled with an extensive two product lab test at PNDC. This will be supported by the NGED Policy Team to ensure that the device meets required standards and can be safely installed, operated, maintained and decommissioned..

A planning tool will be developed to determine the likely benefit of using the PSS at different sites, including comparison with jointing options to reduce imbalance. This will enable an optimised programme of deployment to be developed. The robust and significant testing, trials, policy development and site selection tool provision will ensure that the business has the confidence and evidence to support we can move quickly to implementation within BaU This will support the Challenge 3 objective.

Impacts and benefits selection (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 – direct CO2 savings per annum

Impacts and benefits description

The PSS will deliver partial benefits within the project term. However, significant benefits are expected from BaU rollout, therefore the project will confirm and update the CBA to evaluate justification for rollout.

Baseline assumptions

The baseline assumptions for the CBA are for the current network with no PSS devices installed. Some manual customer re-phasing activity is anticipated but this is expected to have a limited lifetime with additional LCTs changing the load imbalance

unpredictably. Feeders with high imbalance are expected to have high rates of fuse operations.

Financial - future reductions in the cost of operating the network

Reductions in the cost of operating the network come from

1) Fewer unintended fuse operations (which would also provide CI/CML benefits)

2) Reduced / delayed network reinforcement in order to support LCT installations

While the trial will not defer reinforcement, we can measure the degree of released capacity on the LV network and using forecasted load increases determine the number of years reinforcement would be deferred by. The reduction in losses on the LV network, the increased headroom between the load and the fuse rating and any reduction in losses for the 11kV transformer will be captured as part of the project.

The CBA for targeted roll-out shows a net lifetime financial benefit of £230m and an NPV over 45 years of £371m.

Environmental - carbon reduction -- direct CO2 savings per annum

The project will measure the change in phase and neutral currents which can be used to calculate the reduction in losses on the LV feeders. Additionally, we expect to install PSS devices on all LV feeders downstream of a transformer in order to accurately measure the reduction in transformer losses.

With a targeted roll out, net savings of 3.12 TWh of losses are expected over the lifecycle of the devices and 24,322tC02e of carbon savings. This would equate to

£129m of benefit to customers.

Financial - cost savings per annum on energy bills for consumers

While voltage issues are increasing, the degree to which customers are prevented from participating in markets is not currently known. The project will compare customers' smart meter voltages when the PSS devices are operating or not operating. This will indicate the improved access to markets as voltage issues are reduced.

Whilst these benefits are difficult to measure we would expect to see increased participation in markets for balancing and flexibility services. While some service payments are modest, smart car charging benefits can save customers several hundred pounds a year.

Benefits from carrying out LV network upgrades in a planned rather than reactive manner

The trial will provide metrics for exactly how much imbalance reduces network capacity. By selecting locations with high rates of LCT installations we will measure the additional impact of multiple EV chargers or multiple PV installations. This will allow our estimates of when reinforcement would be required to be updated.

Similarly, the development of the optimisation tool will provide better information on the number of sites where PSS deployment is beneficial and an optimised installation plan. The benefits of installations being carried out in a planned rather than reactive manner are expected to result from being able to have a dedicated team that are able to build expertise and therefore carry out installations faster.

Having an optimised installation plan will also allow installations in the same area before moving onto the next area. This should reduce travel and other expenses for the installation teams.

Both targeted and more widespread roll out approaches show significant benefits. The planning tool would help DNOs to optimise installations to locations likely to provide the highest benefits.

Teams and resources

The project is sponsored by NGED's Head of Policy and supported by Policy, Asset Management, Network Services and Innovation Teams. Similar UKPN teams were involved in the prior NIA project.

The additional partners for this Beta phase are;

1) An additional ONO with NGED joining UKPN.

2) Nortech to see how the PSS can be integrated with their well-established iHost telecommunications system used by many network companies.

The consortia sees this Beta application as the next natural step in the proving of this technology. As the PSS offers a unique solution to an existing, worsening problem the partners are committed to delivering a successful outcome.

Our project partners are:

NGED

As lead network NGED will be responsible for managing the project to time, cost and quality. NGED will be in engaging with its local and national stakeholders and will be responsible for making sure that the programme is delivering against the benefits case. It will provide the Project Sponsor and lead the customer engagement work. It will chair the project board and be responsible for ensuring that any risks or issues are managed proactively.

UKPN

UKPN bring their existing experience with PSS having run an NIA project with LCE. They will also help maximise the benefit by reflecting the different requirements and network design in their operating areas, particularly those that are unique to the extreme energy density of London. They will support the evaluation of the device design upgrades, PNDC test plan development, trials design, planning tool design and the development of the supporting policy documents.

Low Carbon Electric

The developer of the PSS Solution, responsible for the further development and lab testing of the device as part of WP2. LCE will report directly to the NGED project manager and form part of the Project Board. They will also be responsible for manufacturing of the PSS solution and therefore have a key role throughout the project.

Nortech

Nortech Management Limited supply specialist monitoring systems, products and services to GB DNOs. The iHost platform, already in use within NGED, will be utilised for remote monitoring and control of the PSS devices. Nortech has extensive knowledge of integrating field devices within iHost and will support LCE with integration works as well as NGED's Cyber Security team with PSS integration assessments (WP2). iHost will provide remote visibility of the PSS devices during PNDC testing (WP2) and NGED field trials (WP4). In addition, the Nortech team will support throughout the project with key deliverables such as the optimisation tool development (WP3), business adoption scoping (WP5) and learning/dissemination activities (WP6). The inclusion of iHost within the solution architecture allows the PSS solution to be readily transferrable to other GB DNOs.

PNDC

PNDC are a reknowned testing facility and have undertaken prior testing on the device for the UKPN led NIA project. They will have a similar role in this Beta project to de-risk the installation of the upgraded PSS for the trial by using their expertise to fomulate a test plan, collate risk assessments, setup and operate measurement apparatus and execute the test plan. PNDC have a unique test network that includes replicating secondary substations and LV networks maximising the realism and relevance of the testing.

We will be procuring a developer for a tool to assist with the planning of the rollout but this is seen as a small exercise and will inform a more enterprise level procurement as part of the next stage of planning.

As part of the rollout planning consumers may be impacted by the installation process only- this will form part of the planning we undertake during Mobilisation.

Project Plans and Milestones

Project management and delivery

Governance and Management

The project will be governed under standard SIF Governance Document including attribution of IPR, conflict resolution and change management. The project board provides a key strategic function for the overall direction and exploitation of the proposed innovation.

NGED internal project review group will be set-up to enable regular update and interaction with a project sponsor to:

- Ensure the project remains aligned with wider NGED organisational strategy
- Assist with resolving strategic level issues and risks.

The project will be split into the following work packages:

WP1- Mobilisation

This part of the project will focus on the mobilisation of the whole project. The Project will have a Project Board and Sponsor, being fully compliant with NGED's standard project governance.

Milestones and responsible partner are:

- Contract Signature (NGED)
- Stakeholder Engagement Plan Approval (NGED)
- Governance Approval (NGED)

WP2- PSS Solution Technical Development and Testing

This package will take the learning from the previous trials, finalise the designs, test the devices in the PNDC lab and build an optimisation tool.

Milestones and responsible partners are:

- Finalise Technical Upgrade (LCE)
- Power Electronics (LCE)
- Production Line enhancements (LCE)
- Technical Updates (LCE)
- P28, DNP3,Security, Test House(LCE)
- PNDC Testing completed (PNDC)

WP3- Planning Tool Development

This package will develop a design for a planning tool for DNOs to use the device on their networks. These designs will be co-created with UKPN and then shared with the DNOs and the outputs. This will be managed by the NGED Project Manager.

Milestones and responsible partners are:

- Developer Selected (NGED)
- Testing of tool completed (NGED)

WP4-Trials

These are the field trials, are dependent on the output of WP2 . (WP3 completion is preferred, but not essential) The planning, execution and results of these will be

shared with DNO's and other industry stakeholders. This will be managed by the NGED Project Manager (or alternate).

Milestones and responsible partners are:

- Trial Site Selection (NGED)
- Installation of trial site equipment (NGED)
- Trial One Completed (NGED)
- Trial Two Completed (NGED)

WPS- Post Trial Evaluation and BaU Proposal

This work package will evaluate the outcomes of WPs 2, 3 & 4 and will develop the policies and plans for BaU transition, this will be done in collaboration with the ENA and other DNOs.

Milestones and responsible partners are:

- Post Trial Evaluation (NGED)
- Planning Tool Evaluation (NGED)

WP6 - Closedown

At closedown we will publish all of our designs and learning and any policy documents along with our BaU plans.

Milestones and responsible partners are:

- Draft Closedown Report (NGED)
- Draft Policy for Approval (NGED

Dissemination

As part of the mobilisation phase we will be producing a Stakeholder Engagement plan, there are a number of key stakeholders and areas where we feel that a strong presence will be vital. This will include stakeholder mapping, a customer engagement panel for those customers where the device will be trialled and internal engagement as well for the engineers installing the devices. It is therefore essential that the team engages in a number of activities across a variety of media including face to face meetings, training & virtual dissemination events

Risk Management

We have identified several risks, detailed within the Project Management Workbook, the key ones being :

1. Technology does not work as expected

2. Project partners are not engaged throughout the programme

3. Solution does not transition into Bau

4. Device works but business is not supportive, raises safety concerns

5. Rest of DNO's are not interested in using the device

6. Device Failure

Stage Gates

There will be two Stage Gates:

21st Oct 25- direction to LthCE on the production of the new units 19th Oct 2026-commencement of PNDC testing

Key outputs and dissemination

Key Project Outputs

The key project outputs and partner responsible for delivery are as follows.

- A finalised product design based on the results of the lab and field trials (LCE)
- A simple Planning Tool design for later development and integration into ONO
- /planning engineers systems(NGED)
- Final lab tests Report (PNDC)
- Final Trials Outcomes Report (NGED)
- Supporting Policies to support the devices use(NGED)
- BaU transition report and plans(NGED)

The Project Sponsor will support the delivery of all outputs.

Dissemination and Engagement Plans

Engagement and/or dissemination activies are expected in all work packages as follows:

WP1- Mobilisation

We expect to ;

1. Issue a press release to inform the industry of the project

2. Create a project webpage within the NGED innovation website. This will include background, and be updated to include progress reports, deliverables, etc. in addition to the ENA Portal .

Within mobilisation we will also produce a Stakeholder Engagement plan. This will include:

- stakeholder mapping
- a customer engagement panel for those customers where the device will be trialled
- internal engagement for installation engineers, faults team, policy team, training school etc.

The team will engage in a number of activities across a variety of media including face to face meetings, training, virtual dissemination events. The plan will include how we will engageto track progress and share learning early.

WP2- PSS Solution Technical Development and Testing

This package build on the learning from the previous trial to finalise the designs, test the devices in the PNDC lab and build a planning optimisation software tool. Input into the required functionality, to be reflected in the design will be gathered via an interactive workshop hosted at PNDC open to any interested DNOs following an introductory workshop for project partners only.

Workshop content will include an explanation by the technology developer (LCE) of the operation of the PSS and the network operator (NGED) will outline the benefits to the network. PNDC will provide a summary of previous PNDC testing outcomes and lessons learned and a live demonstration of the PSS on the PNDC test network .

WP3- Planning Tool Development

This package will develop a design for a planning tool for DNOs to use the device on their networks. These designs will be co-created with UKPN and then shared after an introductory webinar with the DNOs for comment. The final updated outputs will also be shared.

WP4-Trials

These are the field trials and the planning, execution and results of these will be shared with DNOs and other industry stakeholders. We will share our draft field trials plan with the DNO's for comment and then we will host some events with customers as part of the trials as well in coordination with local NGED colleagues.

WP5- Post Trial Evaluation and BaU Proposal

This package will evaluate the results, plan dissemination events and then work with the business to create a BaU transition plan. This will be shared as part of the closedown activities.

WP6 - Closedown

At closedown we will publish all of our designs and learning and any policy documents along with our BaU plans. This will be done with key ONO stakeholders to ensure that they can utilise these results and plans for the benefit of their customers and businesses.

Collaborative working

We have approached UKPN to ensure that they are involved in the delivery of this project and intend to work with all DNO's and the ENA throughout the lifecycle of the project. We will as part of Mobilisation undertake a mapping exercise and review it throughout to ensure that all stakeholders and interested parties, including adjacent projects are engaged throughout.

Commercials

Intellectual Property Rights, Procurement and Contracting (not scored)

PPS Project partners will comply with the default IPR arrangements set out in Chapter 9 of the SIF Governance Document.

Before Award we will finalise agreed background IP that PSS Partners expect to use in the Beta phase. We will be establishing the standard NGED mechanisms for capturing foreground IP through Beta.

Both UKPN and NGED have confirmed that they do not anticipate any IP related constraints or concerns within the PSS project.

Where any further subcontractors are used to support the project, compliance with the SIF Governance IP arrangements will be a contractual requirement.

Commercialisation, route to market and business as usual

The Phase Switch System(PSS) project is fundamentally about Business As Usual(BaU). We want to test this innovative solution at increased scale with an

eye on a BaU rollout. Therefore, we have a workstream dedicated to working with the business and the Small Medium Enterprise that has developed the PSS solution, Low Carbon Electric (LCE), to facilitate the right policies to enable such an event. LCE has a plan for mobilisation as highlighted below and the business is engaged with the right business sponsor to enable transition.

Having the Policy Manager involved will ensure that the business is engaged throughout the trials and can move once the project is completed, policies are an intrinsic part of rolling out new technology on the network.

Furthermore, we have a plan for having the right planning tools in place by building something simple for the trials. This planning tool will allow the business to determine the viability of installing the PSS at different sites and the likley benefits so that an optimised installation plan can be created for BaU roll out.

The plan also includes a period for training and this will be embedded as part of the BaU transition planning that we will undertake as part of WPS.

The commercialisation strategy for the Phase Switch System (PSS) consists of the key milestones outlined below, the accompanying timeline is provided in Q10- Appendix-p1.

Start of SIF Beta Project (2024): Enabling collaborative scalable PSS development with two ONO and partners that are crucial for building investor confidence.

Business Development Investment Secured (2025): Facilitate the introduction of the PSS to local markets including France, Germany, and Italy to strengthen the Series A funding proposition in 2027.

PSS Trials in Europe (2026): Conducting PSS trials in Europe validates the PSS reinforcement capability on continental networks.

Production Line Design and SIF PNDC Testing Complete (2026): Initiates a Series A funding raise to scale production from 2027 consisting of control electronics and cabinet panel assembly and testing in North England to supply the emerging market across Europe. Network modelling indicates LV networks will reach 95% cable capacity when EV penetration reaches 31%, nationally, this aligns with 2031 (OBR and UK Government EV licensing statistics, Q10-Appendix p2). Communities that experience rapid EV adoption will reach capacity earlier.

PSS Planning Tools Available (2027): Empowers ONOs to understand where the PSS will provide benefits in their networks, facilitating its widespread adoption.

Publish Results (2028) : Publication of SIF project results in 2028 to the UK ONO community and at CIREO solidifies the PSS as a fast, flexible, low-cost high impact value proposition for reinforcing LV networks.

Establish PSS Maintenance Network (2028): With DNOs and Partners, design the maintenance network for the PSS across

the UK.

First PSS Business as Usual (BAU) Sale (2028): Signalling market acceptance and setting the stage for continued growth, investment, and expansion.

It is our intention that the trials are robust, the right people are engaged and the plan is workable and thorough enough that this exciting development in electricity networks can make a meaningful impact on the industry. We are committed to sharing the outputs with the other networks to ensure that this device can form a vital part of the energy transition allowing customers to adopt LCTs at scale.

Policy, standards and regulations (not scored)

We do not consider that there are currently any barriers to the policies, standards and regulations with the use of the Phase Switch System. However, fundamental to the PSS project is the establishment of the right policies for rolling out the system. This is the reasoning behind having the Head of Policy as the Project Sponsor to ensure that the right stakeholders are engaged throughout its lifecycle. It is also why we have sought to leverage the experience of UK Power Networks.

We are not aware of any government policy changes or decisions that need to occur in order for the project to progress into business as usual. The project is being set up to ensure that where the device is proven to add value that it can be rolled out quickly, subject to relevant procurement requirements.

We are not aware of any standards either in respect of ESMR that would need to change but again this is covered by a core role for the Policy team within the project. The field and lab testing will be constructed to cover off those areas that need addressing for rollout of the device.

We intend to engage DNOs and the ENA regularly throughout to ensure that all policies and procedures are considered throughout the trials.

Consumer impact and engagement

As the main beneficiaries of the benefits, customers are at the forefront of this solution. Moreover this solution will be viable for all customers, not particular groups of customers. It is therefore vital that they are central to the outputs and outcomes of PSS. With this in mind, the consortia has retained UK Power Networks onto the project based on their prior knowledge and experience and we shall be organising a Stakeholder Engagement Panel to gain access to customers and their feedback. This will inform the planning stages at the end of the project.

Customers with particular accessibility needs have been taken into account in the decision to reduce the width of the PSS and the planning tool will have a function to ensure that the device is not installed in locations where it would cause an obstruction to wheelchair users or those with pushchairs (including side-by-side twin models).

As detailed throughout the submission, the primary benefit to customers comes through easier adoption of low carbon technologies with the PSS ensuring that the capacity of the LV cable is not wasted due to phase imbalance and is therefore available to support additional LCT deployment. Managing phase imbalance has the secondary benefits of reduced losses and reduced costs through deferred or avoided reinforcement.

Additionally, customers are likely to benefit from fewer power interruptions due to reduced substation fuse operations, which is of particular concern to vulnerable customers. Finally, customers are expected to benefit from improved voltage regulation. If, as expected, the PSS reduces the times that customer voltage could prevent them from participating in flexibility markets, this will improve the equality of outcomes for customers. Market fairness is a real potential societal benefit for customers.

As part of the trials planning work, we will be engaging with the local Distribution Manager within NGED and their teams to ensure that where the devices are installed that we maintain engagement and feedback throughout the trialling of the devices. We want to ensure that the devices work technically but also that they do not pose any risk or negative effects on customers.

As installation of the device may cause a short interruption to customer supplies, we will be proactively engaging with affected customers to explain the project and its potential benefits as part of our engagement strategy. This will be done ahead of the installation and in a managed way, as we would in all supply disruption situations. Similarly, we will provide a point of contact so that any customer concerns or queries during the project can be routed to the project team rather than the general enquiries line.

Customer surveys will be carried out to determine if there have been any unexpected impacts on customers during the trial, these will be planned out as part of the Stakeholder Engagement exercise during mobilisation. Customer feedback will form an intrinsic part of the BaU transition planning process.

Value for money

The total cost of the project is £3.43m. The funding request is for £3.08m. The breakdown across the partners is as follows:

Lead Partner -- NGED

NGED will be leading the project and steering deliverables. Total Costs: £389,727

Contribution: £38,973 (10%)

SIF Funding Required: £350,754 (90%)

Partner 1- Low Carbon Electric

LCE will be developing further the solution and producing the devices, therefore the bulk of the project costs rests with them.

Total Costs: £2,048,783 Contribution: £204,879 (10%)

SIF Funding Required: £1,843,904 (90%)

Partner 2- PNDC

PNDC will be providing the facilities for the laboratory tests over the course of the project.

Total Costs: £725,208 Contribution: £72,520 (10%)

SIF Funding Required: £652,687 (90%)

Partner 3- UKPN

UKPN will be advising the project along the way based on their experience with their NIA project.

Total Costs: £122,850 Contribution: £12,285 (10%)

SIF Funding Required: £110,565 (90%)

Partner 4-Nortech

Nortech will be supporting the communications to the system as part of the field trials.

Total Costs: £146,596 Contribution: £14,659 (10%)

SIF Funding Required: £652,687 (90%)

Partner funding will come through the following:

All partners will provide their own finance for their contributions.

It is envisaged that the development of the NGED Planning Tool may require some outsourcing and we can that no additional funding is being made available to the project.

The planning at the end of the project will include the decommissioning of the assets where appropriate.

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 Beta Round 2 Project Registration 2024-09-10 3_35 - 84.7 KB
NIA Project Registration and PEA Document 2022-04-08 3_23 (2).pdf - 106.8 KB

Documents uploaded where applicable?

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