SIF Alpha Round 4 Project Registration

Date of Submission

Feb 2026

Project Reference Number

10179010

Initial Project Details

Project Title

SHARED: Smart Hydrogen and Resilient Energy Decarbonisation

Project Contact

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Challenge Area

Embedding resilience

Strategy Theme

Supporting consumers in vulnerable situations

Lead Sector

Electricity Distribution

Other Related Sectors

Electricity Distribution

Project Start Date

01/02/2026

Project Duration (Months)

7

Lead Funding Licensee

UKPN - Eastern Power Networks Plc

Funding Licensee(s)

UKPN - London Power Networks Plc

Funding Mechanism

SIF Alpha - Round 4

Collaborating Networks

UK Power Networks

Technology Areas

Hydrogen

Low Carbon Generation

Overhead Lines

Energy Storage

Resilience

Project Summary

Rural communities face challenges in decarbonising heating systems are more vulnerable to climate change impacts and more likely to be Worst Served Customers (WSCs). Decarbonising these areas could increase electricity demand, exacerbating resilience issues, especially for WSC. Strengthening the electricity network in these areas would be expensive and take time, so alternative solutions are needed. SHARED will explore the potential of low-cost hydrogen production and storage as a solution to improve the resilience of these communities. The project will assess how effective this approach could be and identify the specific needs of rural communities.

Add Preceding Project(s)

10158623 - SHARED: Smart Hydrogen and Resilient Energy Decarbonisation

Add Third Party Collaborator(s)

Frazer-Nash Consultancy

The First Element Group Ltd

Project Budget

£562,562.00

SIF Funding

£499,526.00

Project Approaches and Desired Outcomes

Animal testing (not scored)

- ○ Yes
- ⦿ No

Problem statement

Rural communities tend to experience more supply interruptions due to the architecture of electricity infrastructure in those areas. They also see a greater impact from these interruptions, particularly those caused by extreme weather events, as rural network topology and longer distances from depots can mean longer response time to get customers back on supply. These communities therefore often fall into Ofgem's category of Worst Served Customers (WSC), i.e. 12 or more unplanned interruptions with a duration of three minutes or longer over three years.

The decarbonisation of heat and transport within these communities could exacerbate the impact of electricity interruptions. Other infrastructure supporting these communities, such as water pumping stations, are supplied by the same electricity networks, presenting a cascading risk to the resilience of these communities.

Rural distribution networks are mostly supplied by long-distance overhead lines (OHL) at high voltage (HV). As such, traditional resilience improvements such as reconductoring OHL, undergrounding OHL and ringing-in HV circuits can be cost prohibitive. This work can also take a significant time to deliver due to consenting and legal requirements. Therefore, a solution to improve network reliability in a faster, more economical way is required.

Through Discovery, analysis of network topology and historic outage data helped identify network areas most at risk and those that would most benefit, as well as identify vulnerable customer locations where the benefit would be greatest.

Solution

SHARED (Smart Hydrogen and Resilient Energy Decarbonisation) proposes a solution which couples low-cost hydrogen technologies with an integrated sensor and software control. SHARED uses electricity from the network at times when there is low network demand to produce hydrogen by electrolysis from water (stored in the system tank). This hydrogen is stored in a low-pressure system and then, during an interruption, converted back to electricity via a fuel cell to provide electricity to the network remotely. This solution aims to reduce the impact of interruptions and hence the number of WSCs by remotely activating and restoring power to customers in the event of an interruption. It thereby facilitates the decarbonisation of these communities through enhanced resilience. As a result, SHARED is aligned to Challenge 3: Embedding resilience, Scope 1: Cross vector approaches to decarbonise rural communities in a resilient manner.

Users

The user of this innovation are the DNO, as well as rural customers, who are directly benefit through improved resilience. User needs were explored in Discovery, and Alpha will examine the system's response time to investigate the potential use as an Uninterruptable Power Supply (UPS). This will be of particular benefit to vulnerable customers and will further support the DNOs to reduce the number of WSC on their network.

Additional potential uses and users will be explored further as part of Alpha to consider the operating models and how this system might be used as part of business-as-usual (BAU) and whether this impacts any of the technical aspects of the system. Further, whilst Discovery considered the risk elements to the different parts of the network, Alpha will consider the benefits as well to identify those parts of the network where the solution will be best suited against alternative resilience options.

The technology could be deployed to a wide range of rural communities across GB. Our dedicated stakeholder engagement work package will ensure engagement with users will continue in Alpha and build on our existing understanding of the problem and user needs

Innovation justification

SHARED combines low-cost electrolysers with novel hybrid storage and compression to deliver a safe, compact, and modular hydrogen resilience system. Key innovative features include:

Use of novel materials that remove rare-earth dependency.
Integrated safety through low-cost wireless detectors and automatic shut-off.
Remote dial-home monitoring
Modularity allowing deployment from a single home up to whole communities.

Due to our modular design approach, SHARED could support resilience efforts across a range of interruption durations:

Milliseconds: UPS ride-through and protection against transient faults.
Minutes-hours: Constraint relief, demand-side response
Hours-days: Storm recovery, outage protection

This solution provides resilience that cannot be achieved through conventional reinforcement or short-duration storage in an economic way. To date, no DNO has utilised hydrogen generation and storage for resilience purposes, largely due to the high costs and technology novelty. Therefore, SHARED aims to respond to Challenge 3: Embedding resilience, Scope 1: Cross vector approaches to decarbonise rural communities in a resilient manner.

The counterfactual considers:

Network upgrades which can require significant time and resources.
Diesel generators which bring noise, pollution, and logistical challenges.
Large scale batteries that are prohibitively expensive for widespread deployment.
Large-scale hydrogen electrolysers that are unsuitable due to cost and scale.

Our solution goes beyond incremental innovation as it delivers continuity of supply, with zero emissions, at lower cost and greater scalability than the counterfactual. In Discovery, the project team identified where in UKPN licence area the solution delivers most benefit (rural, high outage risk, vulnerable customers) and validated two representative outage scenarios. This led the preliminary requirements to focus on a modular, scalable design. Our key finding relates the need for a modular solution, as site characteristics can vary considerably, meaning a one-size-fits-all solution could lead to a cost-prohibitive solution.

The project builds directly on the Discovery and prior TFE “Smart Tank” trials. Discovery established feasibility, and Alpha will extend these foundations to:

Profiling relevant rural sites to confirm how homogenous the system could be,
building and characterising prototype hydride tanks to validate performance.
Scoping and designing the management and control stack, including DNO integration (REST APIs, cyber standards, alerting).
Advancing the economic analysis with a robust siting analysis considering characteristics of each rural secondary substation.
Finalise concept design based on siting analysis.

This innovation cannot be funded within price control allowances or as BAU due to the novel nature of the solution. Further investigation is required into materials and solution performance, DNO-adjacent generation compliance, and service-market formation. The phased nature of SIF is therefore suitable to the design, build and test before implementing this solution on the network. SIF allows sufficient time for cross-industry validation; engagement with DNOs, OEMs, and consumer groups which may be required to establish open standards and service models.

Readiness levels aim to progress from TRL3-4, IRL2, CRL2 in Discovery to TRL5 (prototype tanks and hardware-in-the-loop control), IRL4 (defined DNO interfaces and cyber compliance), CRL3 (service models and supply-chain commitments) in Alpha. This progression is both realistic and ambitious, moving the concept toward a demonstrable pre-commercial system.

Impact and benefits (not scored)

Financial - future reductions in the cost of operating the network

Environmental - carbon reduction – direct CO_2 savings per annum

New to market – products

Others that are not SIF specific

Impacts and benefits description

Rural communities are disproportionally affected by electricity supply interruptions due to the topology of the network. In UKPN's licence area, there are an estimated 30,000 customers qualifying as Worst Served Customers every year under the Ofgem WSC scheme criteria, or approximately 150,000 over the RIIO-ED2 period. Ofgem has allocated funding for the DNOs to support WSC, and UKPN have committed to invest up to £28m over the RIIO-ED2 period to improve reliability of their power supplies.

The pre-innovation baseline for deploying this funding would typically be conventional reinforcement schemes, such as undergrounding overhead lines, or installing ring circuits. These schemes can be costly and time-consuming, and the funding requested by all DNOs corresponds to an average spend per customer of around £1.5k across the numbers of WSC reported by the DNOs. These interventions are particularly uneconomical for rural communities with low customer density, with some schemes recently commissioned by UKPN incurring a cost per customer of £15k and up to £38k. These interventions usually require legal landowner consents, often via multiple landowners, resulting in additional delays and costs in delivering a network improvement.

SHARED offers a more economical and scalable alternative for communities where the conventional reinforcement option is particularly expensive on a per-customer basis. Our vulnerability analysis in Discovery indicated 16k substations serving 222k customers could benefit from the SHARED system, based on UKPN historic outage data and scaled up to the full GB distribution network. The market would be a subset of these substations that have high reinforcement costs, and the assumed threshold for network reinforcement costs is set at £30k per customer, based on a sensitivity analysis carried out in Discovery.

Financial – future reductions in the cost of operating the network

Small-scale hydrogen storage and generation could offer a cheaper alternative to network reinforcement for smaller, more isolated communities, enabling DNOs to ensure resilience of supply, whilst supporting net zero goals, for lower investment and operational costs.

We estimate that installing hydrogen-based generation as an alternative to network reinforcement, at substations with fewer than 50 customers, offers a total net present value to society (the sum financial, environmental and societal benefits, less the costs) of approximately £94m after 20 years, due to more efficient resilience costs. For substations with five or less customers this is ~£4m due to these substations being less numerous.

Environmental – carbon reduction – direct CO_2 savings per annum

One current solution to restoring supply to isolated communities experiencing an outage is to provide backup diesel generators.

These systems are carbon emitting, while green hydrogen generated with cheap, low-carbon electricity (utilised during low-demand high-supply periods) would offer a much lower carbon alternative to restoring power and enabling resilience of supply.

New to market – products

The project proposes to generate a detailed design of grid-connected hydrogen storage, electrolyser, and fuel cell. The specific application of such devices as a resilience supply backup option represents innovative research that could lead to a new product in energy system operation.

Others that are not SIF specific

Social

Interruptions can have a direct negative impact on customers, in particular if they are vulnerable. These are particularly harmful for those medically reliant on electricity. Longer duration of interruptions can also mean customers are unable to heat their properties or cook food.

The reduction in interruptions directly reduces any negative impact on customers' wellbeing. For the fewer than five and 50 customer substation options respectively, these societal benefits estimated over the technology's lifetime are around £313k and £56m.

As mentioned, diesel generators are often the current solution used in the event of interruptions. Due to their noise and pollution, customers' quality of life can also be temporarily impacted.

Regulatory

The SHARED solution would reduce CIs and CMLs by directly targeting WSC in rural locations.

Teams and resources

SHARED brings together three partners for Alpha phase, all of which were involved in the Discovery. All partners have experience of successful delivery on previous network innovation-funded projects, enabling them to deliver the ambitious Alpha scope and achieve the expected outcomes.

UK Power Networks is the electricity distributor delivering power to 8.5 million homes and businesses across London, the East and the South-East of England.

Role: Responsible for overall project management and dissemination of information across the industry, in addition to providing key involvement from internal business stakeholders such as Quality of Supply, Network Operations, Regulation, Health & Safety and Legal.

The First Element (TFE) is a British startup, developing a portfolio of hydrogen enabling technologies. Supported by Innovate UK and private investment, TFE has developed a TRL4 prototype of a self-generating hydrogen smart tank, as a drop-in replacement for liquid petroleum gas tanks it generates and stores green hydrogen at the point of demand via electrolysis using water and renewable electricity. The uniquely internet of things-enabled tank employs demand response algorithms to generate hydrogen when

grid electricity derives from lowest-cost, lowest-carbon (renewable) sources.

Role: TFE will lead on WP3, with the technology down-selection, appraisal and produce the interim and final concept designs, which will incorporate requirements found in WP2, as well as network simulation tests in WP4 and cost benefit analysis in WP5. They will also undertake testing of metal hydride solutions to inform the final concept design.

Frazer-Nash Consultancy (FNC) are experts in applied systems engineering design and simulation, technology road-mapping, and cost-benefit assessment for novel solutions. FNC have assembled a team of technology and industry experts for modelling energy network risk.

Role: FNC will lead on WP4, producing a detailed siting analysis, to understand where the solution is most cost-effective to support investment planning decisions. They will also lead on network simulation within WP4 to test the SHARED system n a simulation environment. Both will be underpinned by the interim concept design produced by TFE in WP3, and findings from the analysis will be incorporated within TFE's final concept design.
Their dedicated design team will also support TFE in WP3 by determining the user requirements and guidance concerning regulatory and safety matters;
Finally, their siting analysis will culminate in an overall cost-benefit analysis, which they will develop in WP5, alongside the final business case and network implementation roadmap.

The Centre for Sustainable Energy (CSE) will not continue as a formal project partner in Alpha. This is largely due to a key finding in Discovery that this technology can be deployed at the secondary substation level, in order to meet network requirements, meaning it would not be visible to customers nor require any engagement or interaction. However, the key outputs created by CSE in Discovery, i.e. the consumer prioritisation matrix, map and ranking of best-suited network and stakeholder map, will form part of any future trial or targeting of the solution.

Our project has engaged with Scottish & Southern Electricity Networks (SSEN), as another DNO with considerable rural network, and will continue to engage throughout Alpha as we design the solution to ensure scalability.

The project does not anticipate any wider network users or consumers for this phase, but TFE will maintain ongoing engagement with their supply chain as part of their Alpha activities. TFE will also be procuring and testing metal hydride at C-ALPS labs at Coventry University. This has been sufficiently costed and resourced for in the project plan as a result of early supplier engagement. Therefore, the project team has sufficient access to the resources, equipment and facilities needed to complete their work.

Project Plans and Milestones

Project management and delivery

There are five work packages proposed for Alpha. Further detail is shown within the PMT and Gantt Chart.

WP1: Project Management – UKPN

Aims: To deliver project on time, to budget, ensuring that project objective and learnings are achieved.

Success criteria: Project delivered on time, within budget and to quality.

WP2: Stakeholder Engagement – UKPN

Aims: To engage key internal and external stakeholders to aid development of the solution and its rollout.

Success Criteria: Requirements for design are captured to successfully support the other work packages

WP3: Solution Design – TFE

Aims: To develop the conceptual design of solution which is cost-effective for improving resilience to rural communities at determined by siting analysis in WP4, that meets user requirements captured in WP2

Success Criteria: Concept design completed to the satisfaction of all project partners, fulfil requirements defined in WP2

WP4: Network Implementation – FNC

Aims: To understand how the solution designed in WP3 will integrate with UKPNs' existing control systems and finalise network locations where the final concept design is cost effective, and therefore understand how the SHARED system could be implemented on the network

Success Criteria: Integration and implementation requirements captured

WP5: Business Case Development – FNC

Aims: To develop a thorough cost benefit analysis, based on final concept design and siting analysis, considering a variation of operating models to establish the business case

Success Criteria: Business case established

Interdependencies between work packages and milestones are detailed in the Gantt Chart, however key interdependencies lie from the internal engagement in WP2 feeding into the remaining work packages, most importantly the concept design. This is in addition to dependencies of the siting analysis in WP4 feeding into the cost benefit analysis in WP5 and final concept design in WP3.

Project management will be led by UKPN using standard best practice methods and tools, including fortnightly management meetings and status reporting. UKPN has highly effective innovation governance procedures, which SHARED will conform to. The project has progressed through the Innovation and Project Governance and Control Governance processes and will continue to be managed under this governance.

The project will use a standard risk management approach where the risk register generated will be regularly maintained and reviewed by the project partners. The risk register uploaded for Q10.2 within the PMT lists risks and mitigation strategies identified. Key risk identified at this stage is:

R10: Solution is found to be cost-prohibitive
Mitigation: We have structured Alpha to ensure that we capture key requirements, including network investment decision processes, and the results of the siting analysis in the design and size of the solution. This, paired with the modular approach, will ensure we avoid any oversizing.

The project work will largely remain desk-based for Alpha and therefore will not have any impact on customers' supplies. If the solution was implemented as BAU, this would be at the secondary substation level, and therefore would have no direct interaction with consumers, but improve their supply. As a result, we do not plan to engage with consumers within this Phase. In a future phase, we would aim to build, test and deploy the solution on a live demonstrator, but not in this phase.

Key outputs and dissemination

At the end of Alpha, the project will have achieved the main objectives of:

Developing the requirements and initial design for the solution.
Quantifying the economic, financial and commercial business case for the solution.
Shortlisting network location options for a future demonstrator trial.
As a nascent technology for network resilience purposes, we have intentionally designed the project structure of Alpha to ensure key inputs are incorporated into design iteratively to ensure the end design is both scalable, feasible and cost-effective. This includes capturing key business requirements, siting analysis outputs, supply chain engagement and a review of various commercial and operating models.

The primary dissemination will be through the deliverables and the project end-point report. The exact format of this will be agreed during the kick-off stages of the project, but we anticipate the work packages to provide the following:

WP1 (UKPN): End Point Report & Show & Tell presentation

Summary of Alpha activities to date, including approach, key findings and lessons learnt
WP2 (UKPN): Stakeholder Engagement Report

Summary of internal and external stakeholder engagement, including requirements for the solution design and capture of external stakeholders views or feedback
WP3 (TFE): Final Concept Solution Design

Detailed concept design built to meet stakeholder and network requirements and impacts of siting analysis findings (see below)
WP4 (FNC): Siting Analysis and Summary of Network Implementation Testing

Detailed siting analysis considering individual cost-benefit analysis for rural secondary substations
Requirements for integration with network (control, monitoring)
WP5 (FNC): Business Case

Established business case, including overarching cost-benefit analysis of the solution at UKPN and for wider GB application,
Review of various operating models, including third-party ownership, to verify most cost-effective approach

Refined development roadmap, including decision-making framework for implementation and steps for rollout
Project outputs will be uploaded to the Smarter Networks Portal and feature on the UKPN website with specific project learnings being disseminated at the Show & Tell events. The project will be presented at other UKPN events should the opportunity arise. UKPN will look to share project successes and discoveries via its social media channels and publish external media where appropriate.

Our approach is explicitly designed to support competitive markets:

Interfaces will be open, standardised, and vendor-neutral, enabling multiple suppliers to deliver modules or services into the solution stack.
Both ownership and service pathways allow participation from different market actors (OEMs, service providers, aggregators), preventing lock-in.
Data and specifications will be published in line with Data Best Practice and Presumed Open principles, ensuring replicability across GB networks via the ENA Smarter Networks Portal.
This ensures innovation is de-risked while market competition is preserved.

Commercials

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

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

We do not anticipate any subcontract arrangements, tenders or procurements to be run by any Project Partner during Alpha. Equally, we will not issue any requests for information or requests for proposals during the project lifetime.

However, The First Element will rent lab space at the C-ALPS Facility at Coventry University (in blocks of five or 10 days) for the testing of some materials. This rental includes a lab technician and general supervision from Professor Oliver Curnick and his team at a preferential rate which represents excellent value for money

Commercialisation, route to market and business as usual

Our commercialisation approach recognises that there is not one set approach to the commercialisation of this solution. Our Alpha phase will consider a range of deployment pathways, which could, if appropriate, be applied dynamically across the network:

1. DNO-owned assets integrated into substation for sole resilience purposes, where direct ownership maximises reliability and control.

2. Service contracting where we can explore the opportunities for external providers to unlock whole-system value, such as assured backup and flexibility dispatch.

The Alpha Phase will establish whether there is a preference from networks for either operating model, and also produce a decision framework to guide DNOs on which pathway is preferable for each substation type, and how transitions between ownership and service contracting can be managed as regulation and markets evolve. This ensures flexibility, scalability, and alignment with SIF’s objective to de-risk innovation ahead of deployment.

The modular product itself is the same in both models: hydride storage, electrolyser/fuel cell stack, power electronics, telemetry, and control platform. What differs is where capital and operational responsibilities sit, and how value is allocated. By keeping interfaces vendor-neutral and publishing open specifications, we preserve optionality for operators and maintain competitive supply chains.

Deployment into business as usual (BAU) would be phased:

· Alpha Phase: Develop techno-economics assessment, validate tank performance, finalise control and interface specification.

· Beta Phase: Carry out detailed design and solution development. Deploy at representative substations to demonstrate system reliability, safety, and economics. Metrics will include avoided outage minutes per pound, £/kW-year resilience cost, £/MWh flexibility value (for the service contracting option), and CO_2e reduction versus diesel.

· Post-Beta: Rollout under BAU, guided by the Alpha/Beta playbooks, with clear criteria for ownership against service contracting.

This phased plan aligns with SIF’s model: alpha to test the riskiest assumptions, beta to demonstrate scale and replicability, and BAU to embed adoption.

With open standards, vendor neutrality, and replicable playbooks, our project enables DNOs to integrate hydrogen-based resilience and flexibility solutions across GB – supporting net-zero objectives while protecting competitive markets.

Our project partners bring both technical and commercial capacity to scale:

· TFE has demonstrated an integrated hydrogen "smart tank" prototype with IoT connectivity, establishing digital foundations for remote diagnostics, condition-based maintenance, and low-touch OPEX models—all critical for network-edge deployment.

· TFE's product roadmap is staged: advanced safety systems (2025/26), metal-hydride compression from 2026/27 and complete smart tank system launch (2027). This roadmap is underpinned by established partnerships with fuel cell and electrolyser OEMs and academic collaborators, ensuring credible supply-chain pathways.

· Commercial channels are defined across hardware sales and digital service layers, including telemetry and optimisation subscriptions, creating recurring revenue to support long-term fleet operation.

· Potential investment requirements are limited to scaling tank manufacturing and digital services capacity, both of which are already being scoped with suppliers and investors during alpha.

This readiness ensures that both ownership and service-contracting pathways are commercially viable and capable of rapid scale once de-risked.

The project has received director-level sign off within UKPN, with core internal business units actively involved from discovery, ensuring strategic alignment with licensee priorities. The sponsor provides senior-level oversight, ensuring lessons from Alpha feed directly into BAU adoption planning.

Policy, standards and regulations (not scored)

For SHARED Alpha, we do not consider there to be any barriers surrounding meeting regulatory, policy or standards requirements. At this phase, we remain at design-stage only and therefore do not anticipate any barriers to successfully carrying out the project. This stage will incorporate key internal stakeholders at UKPN including Network Planning (Quality of Supply), Health & Safety, Control, Regulation and Legal who are best placed to guide the project in relation to policy, standards and regulation.

Additionally, whilst the solution produces and storage hydrogen, this is for internal purposes only and does not supply hydrogen to consumers. It is therefore irrelevant to any policy decisions made on hydrogen for heating, however may be impacted by effects on supply chain upon a policy decision.

We therefore do not anticipate this phase to require a stage gate, derogation or exemption.

Value for money

SHARED Alpha will cost £562,562 in total project costs and the total SIF funding requested is £499,526, with an overall contribution of 11.2%. This is balanced across the project partners as follows:

UKPN

Total costs: £122,330

Total contribution: £12,233 (10%)

Total SIF funding request: £110,097

Frazer Nash Consultancy

Total costs: £284,532

Total contribution: £28,453 (10%)

Total SIF funding request: £256,237

The First Element

Total costs: £155,700

Total contribution: £22,350 (14.39%)

Total SIF funding request: £133,350

All partner contributions will be labour in-kind. There are no subcontractor costs anticipated in this phase of the project, however TFE have an 'Other' cost surrounding lab rental which is required for testing of metal hydride solution as part of WP3.

All work undertaken will be within project partner's working locations, other than the use of lab space within Coventry University. The project will have no additional funding from other innovation funds

This project t represents good value for money as:

Need for innovation: Rural communities are often supplied on long overhead lines over awkward terrain, with some located on 'spurs' of the network, meaning there is only one substation feeding the network. This can result in extremely high costs per customer for network reinforcement work and resilience investment. Further innovation into cost-effective technologies is required to improve rural communities supply to ensure they can receive a continuous supply and decarbonise without any concerns.
Building on Discovery Findings: A key findings in Discovery was the need for a modular solution in order to avoid oversizing and increased costs. We have designed the project structure in an iterative, interdependent way which allows the solution design to be developed according to outputs of wider work packages, crucially the siting analysis, in addition to the technology down selection and appraisal, review of commercial and operating models. This focus on understanding of site-specificity represents our dedication to developing a solution design in the most cost-effective manner.

· Significant work within WP5 is dedicated to understanding where this solution is the most cost-effective solution and develop a business planning decision framework for use as BAU to support networks in identifying relevant sites.

Each partner is undertaking activities relevant to their core expertise, and costs are proportionate to the work undertaken:

· UKPN are leading on WP1: Project Management utilising their strong innovation project management track record. In addition to WP2: Stakeholder Engagement, providing key network expertise and oversight and using their central position to engage with wider DNOs and industry.

· TFE are leading on WP3: Solution Design, building on their excellent prototype design work undertaken in Discovery and previous Smart Tank trials.

· FNC are leading on both WP4 and WP5, as well as supporting on concept design in WP3, including hazard identification work and capturing stakeholder requirements.

Access to key stakeholders: Key internal stakeholders within Network Planning & Operation, Control, Regulation, Health and Safety, Legal will have input into the design, integration / interfaces, and commercial and operating models. Their input has been baked into the project throughout and will serve as invaluable insight. We will also use UKPN's central position as DNO to engage with wider industry to gauge wider views, and in fact, have already agreed with Scottish and Southern Energy Networks (SSEN) to engage with them as the project progresses in Alpha.
Access to data: UKPN holds key information surrounding supply interruptions on its network, including location, causes, durations. It will be able to provide and use all required data related to the network for crucial work such as the siting analysis, subject to an agreed data sharing agreement between project partners ahead of project kick-off.

Associated Innovation Projects

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

Supporting documents

File Upload

SHARED Alpha Kick-off [Final] v2.pdf - 1.0 MB
SIF Alpha Round 4 Project Registration 2026-02-11 11_08 - 83.6 KB

Documents uploaded where applicable?

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