SIF Alpha Round 4 Project Registration

Date of Submission

Mar 2026

Project Reference Number

NPG_SIF_025

Initial Project Details

Project Title

Project VOLT (Alpha)

Project Contact

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Challenge Area

Accelerating towards net zero energy networks

Strategy Theme

Whole energy systems

Lead Sector

Electricity Distribution

Other Related Sectors

Electricity Distribution

Gas Distribution

Project Start Date

01/02/2026

Project Duration (Months)

6

Lead Funding Licensee

NPg - Northern Powergrid (Northeast) Limited

Funding Mechanism

SIF Alpha - Round 4

Collaborating Networks

Northern Gas Networks

Wales & West Utilities

Technology Areas

Hydrogen

Low Carbon Generation

Demand Side Management

Distributed Generation

Energy Storage

Energy Storage and Demand Response

Gas Distribution Networks

Green Gas

Project Summary

Project VOLT Alpha builds on earlier work to develop and validate how multi-vector microgrids can help industrial and commercial sites decarbonise, improve resilience, and provide flexibility. With support from Newcastle Airport, Port of Tyne, Nissan, Pulsant, and Severfield, it targets high-emission zones like ports, airports, and data centres. The Alpha phase will deliver scalable microgrid blueprints and operational processes aligned with national and regional strategies. Backed by NECA, NESO, NGET, and new partners EDF and Wales&West Utilities, VOLT supports the Clean Flexibility Roadmap by unlocking I&C flexibility and accelerating GB's transition to a low-carbon, resilient energy system.

Add Preceding Project(s)

NPG/PV/FND/Rd4_Discovery - Project VOLT

Add Third Party Collaborator(s)

Newcastle University

EDF Energy

LCP Delta

Pulsant

Project Budget

£551,251.00

SIF Funding

£496,123.00

Project Approaches and Desired Outcomes

Animal testing (not scored)

- ○ Yes
- ◉ No

Problem statement

The Discovery phase of Project VOLT confirmed the technical feasibility and strategic value of multi-vector microgrids in supporting industrial decarbonisation, meeting rising energy demands, and reducing pressure on the electricity grid. It explored opportunities and barriers, developed early system designs based on customer data and stakeholder input, and assessed techno-economic viability and business models for broader deployment.

The core challenge remains: how can high-energy demand customers decarbonise while maintaining resilience and cost-efficiency---without overburdening the grid, and ideally, contributing to its resilience? Discovery phase analysis using real customer data showed that multi-vector microgrids offer substantial benefits across electricity, heat, and transport. These include reduced peak demand, deferred reinforcement, improved flexibility, and enhanced system resilience.

As Great Britain targets Clean Power 2030, delivering 12GW of demand flexibility will depend on unlocking more from industrial and commercial (I&C) users. The Clean Flexibility Roadmap (July 2025) tasks NESO with increasing non-domestic flexibility. The Industrial Strategy's Clean Energy Industries Sector Plan (June 2025) highlights strategic demand customers as key to economic growth. DESNZ's Clean Superpower Mission (October 2025) identifies smart, flexible electricity systems and consumer-led flexibility as R&D priorities.

Project VOLT Alpha directly supports these aims by modelling how multiple regional multi-vector microgrids can enhance flexibility, resilience, and network planning. It will assess regional and national benefits of large energy users adopting microgrids, aligning outputs with frameworks like the RESP and SSEP. The project will demonstrate how local microgrid deployment, coordinated with wider networks, can accelerate low-carbon connections, reduce peak demand, and inform future investment.

The Alpha phase will tackle the technological, regulatory, and commercial challenges of scaling multi-vector microgrids, ensuring industrial decarbonisation without compromising resilience or affordability. A roadmap will outline routes to market for different customer types, and the project will quantify benefits for networks, customers, and stakeholders. These outcomes will lay the foundation for future demonstrators and business-as-usual adoption.

Replicability is central to VOLT's design. The project includes a diverse mix of I&C customers to ensure broad applicability. In addition to Newcastle International Airport, Port of Tyne, and Nissan Sunderland, new participants include Severfield, a high-energy steel manufacturer, and Pulsant, a national data centre operator. This expanded scope enables testing across varied operational profiles and infrastructure constraints. Wales & West Utilities joins to explore adaptation in regions with distinct gas network characteristics. This approach supports Ofgem's SIF Challenge 1 (replicable regional energy system models) and Theme 2 (regional balancing for low-carbon deployment).

The Discovery phase involved deep engagement with Port of Tyne, Newcastle Airport, and Nissan, yielding insights into operational constraints, resilience needs, and commercial drivers. These shaped Alpha's priorities. The North Hyde incident (March 2025), which disrupted Heathrow operations, underscored the need for resilient infrastructure. Building on this, Alpha welcomes Pulsant and Severfield as representatives of critical, energy-intensive sectors.

In collaboration with NPg, NGN, W&W Utilities, EDF, NESO, NECA, and NGET, Alpha will explore how regional flexibility, coordinated microgrid operation, and system resilience can deliver broader benefits. This includes black start capability, faster local renewable connections, and optimised transmission--distribution interfaces, all aligned with regional strategies and future system operation frameworks.

Alpha will build on Discovery outcomes by classifying customer needs, developing scalable microgrid blueprints, quantifying system-level benefits, and aligning operations with regional planning frameworks. This ensures real-world deliverability and policy relevance.

Beyond technical outcomes, VOLT supports the Industrial Strategy's Clean Energy Industries Sector Plan, NECA's Spatial

Development Strategy, and the Energy Review by fostering investment, skilled jobs, local supply chains, and innovation to drive GB's energy transition.

Innovation justification

Innovation challenge theme

Project VOLT offers a novel, ambitious approach to industrial decarbonisation and energy system resilience. It unlocks flexibility from I&C customers and delivers replicable regional energy system models, directly addressing SIF Round 4 Challenge 1 -- Theme 2. Building on Discovery , Alpha shifts from feasibility to deliverability, developing multi-vector microgrid models tailored to different customer types. These models support regional balancing, accelerate low-carbon deployment, and enhance resilience for both networks and customers.

Unlike traditional single-vector microgrids, VOLT pioneers a multi-vector framework integrating electricity, gas, hydrogen, and storage. This enables co-optimisation across carbon, cost, and resilience, delivering dynamic load balancing, peak shaving, and system flexibility. The Alpha Phase will produce detailed blueprints, quantify system-level benefits, and align operations with planning frameworks (RESP, SSEP).

VOLT is well-suited to SIF due to its whole-system scope and cross-network coordination. It tackles regulatory, commercial, and operational barriers beyond BaU mechanisms. The project is grounded in real-world constraints and supports the evolution of flexible, low-carbon energy markets.

Novelty and state-of-the-art advancement

VOLT represents a step-change in industrial energy design, integrating multiple vectors and co-optimising across cost, carbon, and resilience. This surpasses conventional models focused on single objectives. Advanced system modelling will simulate microgrid operations across diverse industrial sites, capturing interactions between demand, constraints, and planning.

The project will assess how microgrids support regional balancing, black start capability, and low-carbon connections, while aligning with RESP, SSEP. By combining technical feasibility with stakeholder-specific design and whole-system coordination, VOLT delivers a scalable, replicable blueprint for industrial decarbonisation.

Building on Discovery

The Discovery Phase validated the feasibility of multi-vector microgrids and their potential to meet carbon, cost, and resilience goals when coordinated with upstream networks. It also identified key regulatory, commercial, and system-level challenges, shaping Alpha's focus on deliverability.

To address these, the consortium now includes NGET, Wales&West Utilities, and NECA, ensuring full consideration of transmission, regional planning, and system coordination. The customer base has expanded to include Pulsant (data centre) and Severfield (steel manufacturer), enabling testing across varied operational profiles. These additions reflect growing demand for resilient, low-carbon solutions in energy-intensive sectors. Letters of support are attached to this question, (NGET's submitted separately).

Lessons from Discovery and other SIF projects like ReFLEX and Distributed ReStart confirm the need for tailored, scalable models aligned with stakeholder priorities. VOLT Alpha is designed to meet this need.

Technical and commercial readiness

At Discovery's end, VOLT had reached:

TRL3--4: Concept validated; initial modelling complete.
IRL2--3: Early integration with network data and planning.
CRL2--3: Strong stakeholder and customer interest.
By Alpha's end, VOLT aims for:

TRL5: Operational models tested across industrial sites.
IRL4: Integration with RESP, SSEP, and planning frameworks.
CRL4--5: Defined route-to-market with tailored value propositions
Why SIF?

VOLT's complexity, systemic scope, and cross-sector coordination place it beyond the remit of BaU funding. It addresses uncertain data, regulatory gaps, and stakeholder engagement needs not typically resourced. The project prioritises consumer protection, resilience, and strategic planning---aligning with SIF's public benefit mission.

Stakeholder engagement and co-design

Alpha has been shaped through collaboration with EDF, NESO, NGET, Wales&West Utilities, and NECA. Their input ensures the project addresses challenges across the energy system. Engagement with new customer sites ensures replicability across diverse users. This inclusive approach fosters transparency, challenge, and collaboration, reinforcing VOLT's system-wide impact.

Counterfactuals

Without multi-vector microgrids, I&C customers would face up to 62% higher energy costs and 47% higher emissions, as shown in Discovery baselines for customers. VOLT Alpha offers a scalable, practical solution to meet decarbonisation needs, enhance resilience, and unlock I&C flexibility---supporting government objectives. Only SIF can enable a whole-system, multi-party innovation with public benefit at its core.

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

Revenues - creation of new revenue streams

Impacts and benefits description

Impacts and benefits description
Project VOLT offers substantial benefits for customers, networks, and wider stakeholders. Multi-vector microgrids reduce peak network loads, deferring reinforcement and enabling faster renewable connections. Coordinated regional microgrids provide flexibility and resilience services, while helping I&C customers cut energy costs, improve security, and meet decarbonisation goals. The project also strengthens the business case for commercialising new technologies, supporting regional development in line with the Government's Clean Energy Superpower Mission.

Pre-innovation baseline and challenges

I&C sites currently depend on centralised energy supply, resulting in high costs, emissions, and limited flexibility. Most demand is met via direct electricity and gas imports, with peak usage driving grid congestion and reinforcement needs. Fossil fuel reliance increases emissions, and industrial flexibility and multi-vector integration remain largely untapped.

Forecast net benefits

If adopted as BaU, VOLT could deliver:

£19-40 million in avoided network reinforcement over 25 years by reducing peak demand and optimising cross-vector flows.
15-62% annual energy bill savings per I&C customer via on-site generation, renewable export optimisation, demand-side management, and reduced peak-time grid reliance.
Up to 1,800 tonnes of direct CO savings annually from reduced fossil fuel use.
10,000-40,000 tonnes of indirect CO savings annually by reducing reliance on carbon-intensive peaking plants.
Up to £1 million in lifetime flexibility revenue for industrial users.
Resilience benefits valued at up to £1 million/year (or £3 million/year for mission-critical sites), based on Value of Lost Load estimates.
Alpha benefits

While Alpha won't deliver direct consumer benefits, it will generate outputs valuable to I&C customers, networks, NESO, and planners:

Design blueprints and operational processes for different customer types, with case studies applicable across GB, enabling decarbonisation without major network upgrades.
Policy and regulatory recommendations and a deliverability roadmap to support innovation trials or BaU development.
CBA toolkits and guidance to support future trials and deployments.
Flexibility potential analysis and alignment with NESO system operation strategies, including recommendations for new products supporting the Clean Flexibility Roadmap.
System coordination insights at regional and national levels, feeding into RESP, SSEP, NECA's Spatial Development Strategy, and the Energy Review.
A Beta phase roadmap, detailing how Alpha insights will transition into real-world demonstrations, identifying optimal sites, readiness requirements, and integration pathways with decarbonisation and network plans.
'Other' benefits: social and equity impacts

VOLT also delivers broader societal and environmental benefits:

Attracting investment by offering cost-effective, resilient energy to high-demand users.
Creating green jobs and high-value employment.
Strengthening local supply chains.
Driving innovation aligned with GB's energy transition.
Supporting decarbonisation of high-energy users, improving air quality.
The accompanying CBA and Business Case use Discovery Phase outputs and current BaU assumptions, including existing energy demand levels. Further analysis during Alpha will refine these based on evolving demand and generation trends through 2050. This will inform key cost--benefit metrics such as peak demand reduction, flexibility market participation, and energy bill savings, using WP2, WP5, and WP7.

Beta phase vision

In Beta, VOLT will move from design to demonstration at one or more I&C sites, combining real-world deployment with simulation to validate Alpha findings.

The Beta phase will:

Deploy a pilot multi-vector microgrid integrating renewables, battery storage, hydrogen CHP, and smart controls.
Demonstrate flexibility provision to NESO and DSO markets.
Quantify system and customer benefits: emissions reduction, peak shaving, deferred upgrades, improved continuity, and resilience.
Test commercial models and market participation mechanisms.
Validate digital and control tools for on-site and system-level coordination.
Establish a roadmap for scaling from innovation to BaU deployment across GB.

Teams and resources

Who will be involved with the delivery of the Project during the Alpha phase? Are there any changes in team or resource requirements from your previous SIF Discovery Phase, or innovation Project funded through other routes?
Core consortium and new partners

The core consortium from the Discovery Phase remains unchanged: Northern Powergrid, Northern Gas Networks, Newcastle University, and LCP Delta, with support from NESO and customers Newcastle Airport, Port of Tyne, and Nissan.

In Alpha, three new partners join: Wales & West Utilities (to support GB-wide adoption), Pulsant (a data centre operator), and EDF (an energy supplier and FSP provider). Additional support comes from Severfield (a leading steel manufacturer), the North East Combined Authority, and National Grid Electricity Transmission. These additions enhance strategic alignment with emerging sectors, broaden customer representation, and strengthen whole-system planning and replicability across GB.

Project partners and roles

Northern Powergrid (Lead Partner): Oversees governance, ensures alignment with electricity distribution needs, and supports integration with the wider energy network. Provides network constraint data and infrastructure insights.

Northern Gas Networks: Assesses gas and hydrogen integration, offering insights into network flexibility, infrastructure synergies, and regulatory considerations.
Wales & West Utilities: Evaluates green gas integration, including biomethane and hydrogen, and supports replicability across GB through configuration insights.
LCP Delta: Leads market analysis, techno-economic modelling, stakeholder engagement, and regulatory assessment. Offers expertise in flexibility markets and investment strategies.
Newcastle University: Conducts technical feasibility studies, models multi-vector configurations, and evaluates infrastructure readiness. Brings expertise in power systems and hydrogen integration.
EDF: Assesses flexibility potential and supports design and operational process development. Provides practical FSP market expertise. This is a new collaboration.
NESO (Supporter): Supports whole-system coordination and flexibility development. Ensures alignment with regional strategies and net-zero targets, including RESP and the Clean Flexibility Roadmap.
I&C Customers -- Port of Tyne, Newcastle Airport, Pulsant, Nissan, and Severfield (Unpaid Partners): Provide site data, infrastructure insights, and use cases. Their involvement ensures solutions meet the needs of energy-intensive industrial sites. Pulsant and Severfield joined in the Alpha Phase.
North East Combined Authority (Supporter): Supports regional coordination and development via the Spatial Development Strategy and Energy Review. Offers insights into I&C impacts, investment, and community benefits. This is a new collaboration.
National Grid Electricity Transmission (Supporter): Supports whole-system coordination and transmission--distribution interaction. Provides expertise in national infrastructure alignment.
Stakeholder Engagement Beyond the Consortium

Ofgem, DESNZ, and Elexon will be engaged to ensure alignment with future market structures, regulations, and policy frameworks. Their input will inform regulatory considerations and the deliverability roadmap for wider implementation.

Resources and facilities

All necessary resources are in place:

Network and demand data: Provided by NPg, NGN, Wales & West Utilities, and customers to assess energy flows and constraints.
Modelling tools: LCP Delta and Newcastle University will use advanced platforms to optimise microgrid configurations.
Customer site data: Provided by Newcastle Airport, Port of Tyne, Nissan, Pulsant, and Severfield to support configuration development and benefit assessments.
Stakeholder engagement frameworks: Developed by LCP Delta to ensure meaningful collaboration with industrial partners and energy users.
The expanded Alpha Phase team builds on the Discovery Phase's strong foundation, adding EDF, Pulsant, Severfield, NECA, and NGET for broader expertise and perspectives. This strengthened collaboration ensures robust outcomes that deliver tangible benefits for I&C customers, networks, communities, and consumers across GB.

Project Plans and Milestones

Project management and delivery

How will you manage your Project effectively? What is your Project plan? What are your milestones? What are the risks associated with your Project?
Project management and delivery

Project VOLT Alpha is structured around seven coordinated work packages, each led by a core partner with defined objectives and outputs. Delivery will follow agile principles and robust governance, supported by the Project Management Template and Gantt chart attached. Each project partner is contributing 10% to the total cost of the project.

WP1 -- Project management
Lead: NPg | Support: LCP Delta
Total cost: £110,646

WP1 oversees delivery, ensuring compliance with Ofgem's SIF requirements, managing risks, dependencies, and reporting. A Project Steering Committee with senior representatives from NPg, NGN, W&W Utilities, LCP Delta, Newcastle University, and EDF will guide delivery. LCP Delta will coordinate regular updates with I&C customers and supporters.

WP2 -- Stakeholder management
Lead: LCP Delta
Total cost: £79,093

WP2 develops a stakeholder engagement strategy and gathers insights to shape microgrid solutions. It ensures all WPs align with the priorities of networks, customers, DSO, NESO, and other stakeholders, supporting future trials or BaU deployment.

WP3 -- Microgrid design & operations
Lead: Newcastle University | Support: LCP Delta, EDF, W&W Utilities
Total cost: £75,698

WP3 delivers blueprint designs and operational processes for multi-vector microgrids tailored to customer classifications. Activities include customer needs assessment, design configuration, operational mapping, and coordination with planning frameworks (RESP, SSEP). A site assessment framework will support replicability across GB.

WP4 -- Future market, policy, regulation & technology
Lead: LCP Delta | Support: EDF, W&W Utilities
Total cost: £86,644

WP4 addresses policy and regulatory barriers identified in Discovery. It includes a technology readiness review and develops a deliverability roadmap outlining routes to market and replicability for different customer types.

WP5 -- Stakeholder benefits
Lead: LCP Delta
Total cost: £67,196

WP5 identifies and quantifies benefits for networks, customers, and stakeholders. It delivers a benefit framework, value propositions, business models, and case studies using both qualitative and quantitative analysis.

WP6 -- System operation & flexibility
Lead: LCP Delta | Support: EDF, Newcastle University
Total cost: £91,340

WP6 assesses flexibility potential from multi-vector microgrids, identifies barriers, and develops a replicable blueprint for I&C flexibility. It aligns with the Clean Flexibility Roadmap 2025 and NESO's flexibility actions.

WP7 -- Wider system coordination & benefits
Lead: Newcastle University
Total cost: £39,028

WP7 evaluates system-level benefits of regional microgrid deployment, focusing on resilience, decarbonisation, and low-carbon connections. It includes feasibility and operational value assessments, coordination mechanisms with NESO and DSOs, and scenario testing under outage or stress conditions.

Key outputs and dissemination

What are the expected key outputs of your Project and your plan for disseminating them along with any lessons learned?
Project VOLT Alpha phase will deliver a set of strategic, technical, operational, CBA and deliverability roadmaps that lay the foundation for a customer trial in a Beta phase. The Alpha Phase of Project VOLT will produce six core outputs to support a future Beta trial or BaU deployment:

WP2 -- Stakeholder engagement report: Summarises feedback, priorities, and alignment with microgrid design. Includes recommendations for engagement during the Beta phase.
WP3 -- Design blueprints and operational processes: Provides high-level designs for each customer classification, detailed case studies, and a site assessment framework to support replicability across GB.
WP4 -- Policy and regulation roadmap: Offers recommendations and a deliverability roadmap for I&C microgrid development, including blueprints for wider GB application.
WP5 -- Stakeholder benefit framework: Presents value propositions for stakeholder groups, supporting engagement and route-to-market planning. Includes detailed cost-benefit analysis for future phases.
WP6 -- Flexibility potential and service report: Aligns value between DSOs, NESO, and customers. Recommends integration into system operation strategies and potential new products. Will inform NPg's flexibility strategy for I&C customers.
WP7 -- System benefit report: Details contributions to resilience, security, and decarbonisation. Includes coordination strategies, integration recommendations for national planning frameworks, and potential regulatory changes. Highlights the role of gas networks in supporting resilience.
Dissemination Strategy

Project VOLT will use a multi-channel dissemination approach focused on accessibility, collaboration, and public value:

Workshops and webinars: Sessions with I&C customers, network operators, Ofgem, DESNZ, and NESO to present findings and gather feedback. Led by LCP Delta and Northern Powergrid.
Regulatory engagement: Meetings with Ofgem, DESNZ, and industry bodies to inform policy and market design.
Conference presentations: Participation in events such as the Energy Networks Innovation Summit and sector-specific forums.
Public reports: Findings will be published on partner websites and industry platforms. LCP Delta will host a partner on its "Talking New Energy" podcast to reach broader audiences.
Peer learning: Collaboration with other SIF projects focused on decarbonisation, resilience, planning, and flexibility.
Supporting competitive market development

Project VOLT will promote open-access knowledge and support innovation across the energy sector:

Transparency: Publicly available insights will support industry-wide progress without favouring specific suppliers.
Market participation: Identifies frameworks enabling I&C customers to engage in energy and flexibility markets.
Collaboration: Facilitates dialogue between networks, technology providers, and regulators to accelerate deployment.
Scalability: Ensures findings contribute to replicable solutions for I&C sites across GB, supporting widespread decarbonisation and resilience.
By delivering strategic outputs and ensuring open dissemination, Project VOLT Alpha will lay the foundation for industrial multi-vector microgrid adoption. It supports the long-term evolution of flexible energy markets and whole-system planning, enabling future Beta phase trials and scalable BaU deployment across GB.

Commercials

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

Intellectual Property Rights (IPR), procurement and contracting (not scored)
This project will adopt the default IPR arrangements as set out in Chapter 9 of the SIF Governance Document. No alternative arrangements are proposed for the Alpha Phase. All partners are aware of and agree to the terms of the default framework, which supports open knowledge sharing and protects the principles of fair and transparent market development.

Procurement and contracting

At this stage, we do not anticipate running any formal tenders or issuing RFIs/RFPs during the Alpha Phase. All delivery will be carried out by the confirmed project partners:

Northern Powergrid (NPg)
Northern Gas Networks (NGN)
Wales and West Utilities (W&W Utilities)
LCP Delta
Newcastle University
EDF
And supported by customers, NESO, NECA and NGET
No subcontracting is expected for the Alpha phase of Project VOLT.

No activities in this project phase involve procurement of physical infrastructure or delivery mechanisms that would affect consumers directly.

Commercialisation, route to market and business as usual

How will your idea become business as usual within your network and across the other networks? What strategy do your Project Partners have for commercialisation of the innovation?
Project VOLT is designed from the outset as a public value-driven project that supports decarbonisation, whole-system planning, resilience, unlocking I&C clean flexibility potential and wider benefits that generate fair outcomes for customers. VOLT seeks to bring together multi-vector elements and cross-sector coordination with all stakeholders to unlock additional benefits that could not be achieved in isolation. The outputs and deliverables will provide blueprints that can be adopted by other I&C customers and networks across GB.

During the Alpha Phase, the project will develop blueprint designs encompassing customer classification and prioritisation, high-level operational processes, CBA, business models and roadmaps to support the transition from Alpha to Beta trial at a customer site to BaU adoption.

Project VOLT will also support and link with broader regional and national strategic planning processes that are currently being developed by NESO. The project will help bridge understanding between local or combined authorities, networks and I&C customers. Senior sponsorship is embedded within both NPg and NGN. Project VOLT is strategically aligned to regulatory and company objectives as well as government policy associated with Clean Power 2030. These sponsors will support Project VOLT to ensure the network, I&C customers, flexibility and broader benefits are unlocked.

Policy, standards and regulations (not scored)

Do you consider there to be any barriers with respect to meeting the requirements of regulations, policy or standards?
Project VOLT Alpha Phase does not require any regulatory derogations or changes to standards. It is a desktop exercise that uses real-world data to develop designs, high-level processes and technical and commercial modelling with no physical infrastructure deployment or safety-related interventions. However, a Beta Phase project would include deployment of assets on I&C customer sites. We do not at this stage consider there will be a requirement for derogations or regulatory changes, but will continue to assess as part of the Alpha phase.

Value for money

What are the Alpha Phase Project costs and how are they proportionate to the Project delivery? How do they represent value for money for the consumer?
The total cost of Project VOLT for the Alpha Phase is £561,048.00, with £495,945.00 requested in SIF funding and the remaining £65,103.00 contributed by private funds, meeting the required contribution threshold.

The project represents value for money by leveraging industry expertise, minimising unnecessary expenditure, and ensuring a clear pathway to commercialisation and business-as-usual adoption. Breakdown of project costs and funding contributions

Northern Powergrid (lead partner): total cost of £26,796.00 including a 10% contribution from private funds -- Manages overall project governance, regulatory engagement, and alignment with electricity networks.

Northern Gas Networks: total cost of £11,568.00 including a 10% contribution from private funds -- Provides expertise on gas and hydrogen integration within multi-vector microgrids.

LCP Delta: total cost of £255,569.00 including a 10% contribution from private funds -- Leads techno-economic analysis, stakeholder engagement, and commercial feasibility assessment.

Newcastle University: total cost of £163,394.00 including a 10% contribution from private funds -- Conducts the technical feasibility study and system modelling to assess microgrid performance.

EDF: total cost of £84,592.00 including a 10% contribution from private funds -- Leads commercial and operational insights for flexibility from a supplier FSP perspective.

WWU: total cost of £9,130.00 including a 10% contribution from private funds -- Provides expertise on gas and hydrogen integration within multi-vector microgrids.

Industrial customers (Port of Tyne, Newcastle Airport, Pulsant, Nissan and Severfield): 10 days each free of charge - Provide real-world data and operational insights to inform project outcomes.

NESO: Contributes flexibility potential and implementation, whole-system energy planning insights and regional coordination expertise as outlined in their letter of support.

NECA: Contributes to understanding broader benefits, whole-system energy planning insights and regional coordination expertise as outlined in their letter of support.

NGET: Contributes to interaction between transmission and distribution, whole-system energy planning insights and regional coordination expertise as outlined in their letter of support.

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

WP7 - Wider system coordination and benefits assessment (M7.1).pptx - 8.6 MB
WP4 - Market, policy, regulation, fuels and technology assessment (M4.5).pptx - 14.6 MB
WP3 - Microgrid designs and operational process maps and roles (M3.2 & M3.3).pptx - 10.0 MB
WP3 - Integration plan and roadmap for innovation trial (M3.4).pptx - 8.8 MB
WP3 - Customer classification and prioritisation framework (M3.1).xlsx - 49.9 KB
WP2 - Stakeholder strategy (M2.1).pptx - 12.7 MB
WP1 - Project kick-off (M1.1).pptx - 18.8 MB
WP1 - Midpoint report (M1.2).pptx - 9.4 MB
WP1 - End of Phase reporting (M1.3).pptx - 8.9 MB
SIF Alpha Round 4 Project Registration 2026-03-30 10_50 - 78.6 KB

Documents uploaded where applicable?

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