

NIA Project Registration and PEA Document

Date of Submission

Aug 2026

Project Reference Number

NIA_UKPN0125

Project Registration

Project Title

PACE (Powering Access to Clean Energy)

Project Reference Number

NIA_UKPN0125

Project Licensee(s)

UK Power Networks

Project Start

September 2026

Project Duration

1 year and 2 months

Nominated Project Contact(s)

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Project Budget

£2,803,035.00

Summary

PACE (Powering Access to Clean Energy) is an innovation project that will develop and evaluate a coordinated, place-based approach to accelerating the adoption of low carbon technologies (LCTs) while improving network readiness for the energy transition. The project will generate real-world evidence on how Distribution Network Operators (DNOs) could take a more proactive role in enabling decarbonisation, particularly within communities where barriers to participation remain high. The project will bring together customer prioritisation, network planning, proactive network interventions and coordinated technology deployment at a neighbourhood level. This includes exploring how data-driven identification of priority locations, targeted engagement, and network activities such as proactive de-looping and network readiness works can be aligned to support more efficient uptake of low carbon technologies and improve customer outcomes.

Preceding Projects

NIA_UKPN0076 - Neighbourhood Green

WPDEN02 - OpenLV

Third Party Collaborators

Thermly

Community Energy Pathways

EA Technology

UK Power Networks Services

SIRIO Multilateral Strategies Ltd

SIA Partners UK

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Problem Being Solved

The transition to net zero is accelerating uptake of LCTs such as heat pumps, EVs, solar and batteries. This is placing increasing strain on the low voltage (LV) network, with both high export and high demand driving voltage and utilisation constraints at secondary substations.

Current approaches to intervention are reactive and inefficient. Network interventions such as de-looping are normally delivered on an ad hoc basis, resulting in higher costs, repeated site visits, and delays for customers seeking to adopt LCTs.

At the same time, many customers face significant barriers to participation in the energy transition. While these challenges can affect all customer groups, they can be particularly significant for customers in vulnerable circumstances and those on lower incomes. These include:

High upfront costs and affordability constraints

Lack of trust, awareness, or understanding of LCTs

Fragmented and complex delivery processes

Delays linked to network readiness and installation

As a result, LCT deployment is uneven and risks leaving some customers behind, despite the availability of national funding schemes. PACE highlights the scale of the challenge. Research from Energy Savings Trust and IPSOS Mori suggested that 30% of all heat system replacements occur under distress scenarios, e.g. when the boiler has broken down. A further 28% are replaced when the boiler is nearing the end of its serviceable life and needs regular repairs. This limits opportunities for planned electrification or coordinated, neighbourhood-level deployment.

There is a fundamental misalignment between network readiness, customer demand, installer capability, and policy delivery. LCT deployment remains reactive and inefficient, with continued reliance on individual interventions rather than coordinated, place-based approaches.

Looking ahead to the next funding period, Ofgem has confirmed that DNOs will take on an Enhanced Coordination role to support energy efficiency and LCT deployment and the question of a further “expanded” role is under active consideration. This signals a clear shift towards proactive, place-based delivery models. However, there is currently no proven, scalable methodology for how DNOs can deliver an expanded role effectively while capturing customer, social, and network value.

Without a new approach, the transition risks remaining fragmented and inefficient, leading to higher system costs, continued network constraints, and unequal access to benefits.

This project addresses this gap by developing and trialling an industry-leading, place-based approach to coordinated deployment of energy efficiency measures and LCTs at a neighbourhood level. Alongside testing coordinated delivery of low carbon technologies, the project will generate the commercial, operational, regulatory and organisational evidence required to determine whether and how an expanded role for DNOs could be delivered at scale.

Method(s)

This project will use a phased, trial-based commercial and operational innovation method to design, test and evaluate a coordinated, place-based approach to enabling the uptake of LCTs alongside targeted network readiness activities.

The project has been deliberately structured in two-phases to reduce technical, commercial and operational uncertainty.

Phase 1 will focus on research, solution design, customer proposition development, commercial arrangements and trial preparation, generating the evidence needed to determine whether a coordinated place-based delivery model is feasible, represents value for money, and should progress to demonstration.

If approved, Phase 2 will undertake a real-world demonstration of the proposed delivery model, validating customer outcomes, operational performance, network impacts and scalability.

Phase two will trial the impact of a coordinated, neighbourhood-based delivery model, where customer engagement, commercial coordination and LCT deployment are planned alongside targeted network readiness activities, rather than through a traditional reactive, property-by-property approach. This method has been selected because it offers the potential to improve delivery efficiency, customer experience, social outcomes and network utilisation.

Our proposed solution is a proactive neighbourhood-based approach that combines early community engagement and preparation, targeted network readiness works such as proactive de-looping and fuse upgrades, DNO led installation of LCTs in participating homes, and ongoing customer education and support to ensure benefits of the technology are realised.

The project will produce a replicable, evidence-based delivery model for place-based LCT deployment. Outputs will include a defined methodology for prioritisation, coordination, and delivery, alongside validated cost and benefit assumptions.

This model has strong potential to scale:

Within UK Power Networks

Nationally: providing a framework for wider DNO adoption aligned with Ofgem’s expanded role

Internationally: contributing to best practice for coordinated, community-level decarbonisation

Overall, this method enables the project to generate robust, real-world evidence on how an industry-leading, place-based approach can deliver improved customer and social outcomes, alongside network efficiencies.

Scope

This project will design, trial and evaluate a coordinated, place-based approach to delivering energy efficiency measures and LCTs alongside targeted LV network interventions. The scope includes research, trial design, commercial development and real-world demonstration, with the aim of establishing a scalable delivery model for ED3.

The project is delivered across UK Power Networks' licence areas, with activities focused on a small number of neighbourhoods selected based on network constraints, socio-economic characteristics and LCT potential. The scope is structured across two phases, supported by a series of interrelated work packages.

Phase 1 – Design, Prioritisation and Trial Preparation

Phase 1 focuses on building the evidence base through research, design, and preparation, including:

Trial design and stakeholder engagement

Identification of suitable trial areas using combined network and socio-economic data

Commercial and delivery model development: Development of an outline cost-benefit analysis and definition of the monitoring approach required to validate outcomes

Phase 1 outputs will include a refined trial design, confirmed delivery approach, and a stage gate submission to progress to the next phase to include updated scope, costs, and benefits.

Phase 2 – Trial Delivery and Evaluation

Phase 2 will deliver a live, place-based trial to test the proposed model in practice.

This includes:

Coordinated LCT installations:

Deployment of PV and/or battery systems across up to 100 households within selected neighbourhoods

Customer engagement and experience measurement:

Ongoing engagement to support uptake and measurement of customer outcomes

Network and delivery performance assessment:

Evaluation of delivery efficiency, coordination benefits, and any impact on network utilisation, including insights on managing looped supplies

Outcome evaluation and learning:

Collection of real-world data and refinement of cost-benefit analysis, alongside development of a documented, scalable delivery model

Scale and Impact

The project will be delivered at a scale sufficient to generate robust evidence across customer, operational and network dimensions, whilst remaining proportionate to the exploratory nature of the trial. Activities will be undertaken within a small number of carefully selected locations identified through the Phase 1 data-led prioritisation and prioritisation process.

These locations will be chosen based on a combination of customer demographics, network characteristics and the opportunity to test different aspects of the proposed delivery model. The customer-facing trial is expected to recruit up to 100 households across a small number of targeted neighbourhoods and secondary substation areas. This range has been selected to achieve meaningful levels of household participation within each location, allowing the project to evaluate the effectiveness of a coordinated, neighbourhood-based approach to customer engagement and low carbon technology deployment.

Concentrating activity within a limited number of areas will enable the project to assess customer outcomes, delivery approaches and the interaction between local network constraints and characteristics as well as LCT uptake. In parallel, the project will investigate opportunities for proactive network readiness activities, including de-looping and fuse upgrades. These activities will not be linked directly to the locations selected for the customer trial or to constrained secondary substations. Instead, Phase 1 will identify areas of the network where proactive intervention could provide the greatest operational, customer or strategic value. The scale of any network readiness activities will therefore be determined by the evidence generated during Phase 1 and the suitability of candidate locations for testing the benefits of a more proactive approach to network preparation for electrification.

Objective(s)

The objectives of this project are to design, trial, and evaluate a scalable, place-based approach to coordinated LCT deployment, aligned with the emerging expanded role of DNOs.

Establish and validate a robust methodology to identify and prioritise suitable neighbourhoods for intervention, considering network,

customer, and socio-economic data.

Define and test customer engagement, lead generation, and possible onboarding approaches, including producing a defined customer journey process.

Install PV and/or battery systems in selected areas, demonstrating a feasible and efficient delivery model with measurable metrics including installations completed, delivery timelines, and cost per installation.

Quantify impacts on customer bills, affordability, and experience, including capturing inputs to a validated Social Return on Investment (SROI) assessment.

Evaluate the impact of coordinated delivery on network utilisation, delivery efficiency (e.g. reduced repeat visits), and insights into managing constraints such as looped supplies, supported by updated cost-benefit analysis.

It should be noted that the final three objectives are subject to the project progressing to Phase 2.

Consumer Vulnerability Impact Assessment

PACE has been designed using an inclusion-by-design approach to ensure that no customer group is left behind in the transition to low carbon heating and wider decarbonisation. The project will consider Priority Services Register information alongside wider vulnerability indicators where appropriate, use local authority data, and established engagement mechanisms to identify and understand customer characteristics, including levels of fuel poverty, accessibility requirements, language needs and digital exclusion. The project's place-based prioritisation approach focuses on communities with higher levels of deprivation and vulnerability, ensuring support is directed towards customers who may otherwise face barriers to participating in the energy transition.

The project is expected to deliver positive outcomes for vulnerable customers by improving access to LCTs, reducing energy costs and simplifying the customer journey associated with network upgrades and technology adoption. Coordinated delivery of network and customer interventions will reduce disruption to households, while tailored communication and engagement approaches will ensure information and support are accessible to customers with different needs and preferences.

PACE actively seeks to address vulnerability, fuel poverty and the risk of exclusion by:

Prioritising households located within low-income communities.

Providing accessible and tailored engagement to accommodate language, digital and accessibility needs.

Reducing customer disruption and delivery costs through coordinated, neighbourhood-based planning and works.

Supporting greater participation in the benefits of the energy transition, including access to lower energy bills and improved energy resilience.

As a result, the project is not expected to create adverse impacts for vulnerable customer groups. Instead, it aims to generate evidence on how a more proactive, place-based approach can improve equity and inclusion within the Net Zero transition, ensuring that vulnerable and fuel-poor households are able to participate in and benefit from the deployment of LCTs.

Success Criteria

Phase 1 – Design, Prioritisation and Trial Preparation

Phase 1 will be considered successful if it generates sufficient evidence to assess the viability of the proposed delivery model and supports an informed stage gate decision on whether, and how, to proceed to a live demonstration. This will include refinement of the Cost Benefit Analysis (CBA), validation of the customer proposition, identified customers with which to conduct the trial, and initial summary of appropriate commercial and delivery arrangements.

Phase 2 – Trial Delivery and Evaluation

Should the project proceed to Phase 2, success will be demonstrated through the delivery of a coordinated, place-based trial, providing practical evidence on the feasibility of coordinated deployment of LCTs. Performance will be assessed through measures such as delivery progress, participation levels, and lessons learned from implementation and monitoring.

Success will be demonstrated through:

Positive customer feedback and learning on the factors that influence customer participation and satisfaction.

Evidence of customer benefits, including potential impacts on energy affordability and household energy resilience.

The effectiveness of proactive network readiness activities, including approaches to managing looped supplies and LV constraints.

Project Partners and External Funding

PACE will be delivered as a collaborative project, bringing together a range of specialist partners to support the design, prioritisation, and future delivery of a coordinated, place-based approach to low carbon technology rollout.

UK Power Networks will act as the project lead, providing overall coordination, governance, and assurance. However, given the scale and complexity of the challenge, collaboration is essential to access capabilities and expertise

The project is expected to involve collaboration with the following partners:

Thermly, who will support the development of data-driven prioritisation and insight capability, enabling identification of priority locations for interventions to improve the feasibility of decarbonised heating across the network. They will also support with technical

specification and shape a technical framework for energy efficiency installations.

Community Energy Pathways (CEP), who will play a key role in designing and delivering effective community engagement, drawing on their networks of local groups and energy champions to build trust, support vulnerable customers, and develop a repeatable approach to wraparound support

EA Technology, who will provide network and asset insight to inform prioritisation and constraint understanding

UK Power Networks Services will optimise the delivery model for PACE, looking at how de-looping and fuse upgrade works are done now and how they might be made more efficient and proactive in the future. UKPN Services will be developing the internal operating model, delivery processes and business readiness required to support a scalable business-as-usual function, whilst providing an evaluation of the project outcomes.

SIRIO, who will support the development of a robust social value and customer impact framework, building on their expertise in quantifying societal outcomes (e.g. wellbeing, fuel poverty, and health impacts) to strengthen the overall cost-benefit analysis and ensure the full value of the intervention is captured, as well as supporting on the legal framework workstream.

An independent installer and an Energy Supplier are to be identified during the project. This will enable the project to trial two ways of working in terms of value for customer engagement and to support development of a scalable delivery model

Sia Partners will lead the commercial workstream, facilitating collaboration across UK Power Networks, suppliers, installers and other stakeholders to develop and test a commercially viable operating model that could support an expanded role for DNOs. Sia Partners will develop and test an outward-facing commercial operating model through industry engagement and collaborative roundtables, identifying how installers, suppliers, community organisations and UK Power Networks could work together to support an expanded role for DNOs.

At this stage, no direct external funding is provided from partners, with the project funded through NIA. However, partners will contribute significant in-kind value, including technical expertise, data, analytical capability, delivery insight, and access to existing customer and community networks.

This collaborative approach ensures that the project is delivered efficiently and at pace, reduces delivery risk, and enables the development of a robust, scalable model. It also aligns with NIA objectives by ensuring that learnings, insights, and methodologies can be shared across the wider industry to support future adoption.

Potential for New Learning

PACE is designed to move beyond theoretical approaches and generate practical, real-world insight into how a coordinated, place-based model for LCT rollout can be designed and delivered effectively, particularly for customers who are most at risk of being left behind.

A central objective of the project is to better understand where and how interventions should be targeted. By combining network data, customer characteristics, and socio-economic indicators, the project will explore how to identify the areas and households where support will deliver the greatest impact. This will help move away from broad, scheme-led delivery towards a more precise, evidence-based approach.

Equally important is the project's focus on customer engagement and participation. Phase 1 provides an opportunity to understand how customers, especially those in vulnerable circumstances, engage with the energy transition when approached in a more coordinated and locally grounded way. Through close collaboration with community partners, the project will build insight into what drives trust, what barriers prevent participation, and how engagement models can be designed to support customers not just at the point of decision, but throughout their ongoing experience.

Alongside this, the project will develop learning on the role of the DNO as a coordinator within a wider delivery ecosystem. This includes exploring how to effectively bring together suppliers, community organisations, and other actors into a coherent delivery model, and how responsibilities, governance, and assurance can be structured to support successful outcomes. A key output will be an industry-leading blueprint for a scalable, repeatable delivery model.

The project will also strengthen understanding of the full value of interventions, particularly where benefits extend beyond traditional network metrics. Working with partners such as SIRIO, the project will develop a more comprehensive approach to quantifying customer outcomes, including bill impacts, wellbeing, and wider social value. This will help address a recognised gap in current assessments, where the benefits to customers and society are often not fully captured in decision-making.

Learning from the project will be actively shared with the wider industry in line with NIA principles. This will include formal reporting, engagement through industry and regulatory forums, and the publication of methodologies and insights developed through the project. In particular, outputs such as prioritisation approaches, engagement models, and delivery frameworks will be documented in a way that enables replication, scaling, and adoption by other network operators and stakeholders.

By working in this way, the project will not only generate learning for UK Power Networks but will contribute to the wider evidence base needed to support a more coordinated, inclusive, and effective approach to the energy transition across Great Britain.

Scale of Project

The project will be delivered at a scale sufficient to generate robust evidence across customer, operational and network dimensions,

whilst remaining proportionate to the exploratory nature of the trial. Activities will be undertaken within a small number of carefully selected locations identified through the Phase 1 data-led prioritisation and prioritisation process. These locations will be chosen based on a combination of customer demographics, network characteristics and the opportunity to test different aspects of the proposed delivery model.

The customer-facing trial is expected to recruit up to 100 households across a small number of targeted neighbourhoods and secondary substation areas. This range has been selected to achieve meaningful levels of household participation within each location, allowing the project to evaluate the effectiveness of a coordinated, neighbourhood-based approach to customer engagement and LCT deployment. Concentrating activity within a limited number of areas will enable the project to assess customer outcomes, delivery approaches and the interaction between local network constraints and characteristics as well as low carbon technology uptake.

In parallel, the project will investigate opportunities for proactive network readiness activities, including de-looping and fuse upgrades. These activities will not be linked directly to the locations selected for the trial neighbourhoods identified using network and socio-economic data. Instead, Phase 1 will identify areas of the network where proactive intervention could provide the greatest operational, customer or strategic value. The scale of any network readiness activities will therefore be determined by the evidence generated during Phase 1 and the suitability of candidate locations for testing the benefits of a more proactive approach to network preparation for electrification.

Technology Readiness at Start

TRL5 Pilot Scale

Technology Readiness at End

TRL8 Active Commissioning

Geographical Area

The project will be delivered within UK Power Networks’ electricity distribution licence areas, EPN, LPN and SPN. Pilot activity will be focused on a small number of targeted neighbourhoods, selected through the Phase 1 data-led prioritisation and prioritisation process. These locations will be chosen to reflect areas where coordinated energy efficiency, LCT deployment, and network interventions can deliver the greatest benefit to customers.

Revenue Allowed for the RIIO Settlement

No revenue has been provided in the RIO-ED2 allowance for this project.

Indicative Total NIA Project Expenditure

The total project budget is £2,803,035, of which 90% (£2,522,732) will be recovered from NIA.

Project Eligibility Assessment Part 1

Requirement 1

Facilitate the energy system transition and/or benefit consumers in vulnerable situations

Please answer **at least one** of the following:

How the Project has the potential to facilitate the energy system transition:

PACE will facilitate the energy system transition by testing a coordinated, place-based approach to deploying LCTs, including solar PV and battery storage as well as testing enhanced delivery methods to remove barriers to adopting LCTs. The project will generate evidence on how DNOs can work alongside installers, suppliers and community organisations to accelerate LCT uptake whilst making more efficient use of existing network capacity, coordinating multiple market actors around place-based delivery.

The project will evaluate proactive network interventions, including targeted de-looping and fuse upgrades, to improve network readiness for future electrification. Separately, it will assess how coordinated deployment of low LCTs can support customer outcomes and more efficient use of existing network capacity. Together, these workstreams will generate evidence on the value of a coordinated, place-based approach and its potential to reduce the need for traditional network reinforcement.

PACE will also develop and test the commercial, operational and governance arrangements required to support a scalable delivery model for an expanded DNO role, generating evidence to inform future business-as-usual approaches to coordinated LCT deployment and the transition to a low-carbon energy system.

How the Project has potential to benefit consumer in vulnerable situations:

PACE has the potential to deliver significant benefits for consumers in vulnerable situations by testing a coordinated, place-based approach to supporting households that are often least able to participate in the energy transition. The project will target constrained secondary substations serving communities with a high proportion of low-income households, helping to address financial and practical barriers to the adoption of LCTs.

The project will work with trusted community energy organisations and local authorities in trial areas to improve customer engagement and build confidence in the project, recognising that trusted local relationships can play an important role in reaching and supporting vulnerable customers. Participating households will receive customer-owned solar PV and/or battery installations, alongside independent energy advice and wraparound support designed to help customers understand, adopt and benefit from the technologies installed with confidence.

PACE has also been deliberately designed to test the governance, consumer protection and support frameworks required to ensure vulnerable customers can participate safely and confidently. This includes exploring appropriate engagement approaches, customer protections and delivery models that could be adopted more widely as part of future business-as-usual delivery.

The project will generate evidence on how coordinated, place-based delivery can improve participation, customer outcomes and accessibility, helping to ensure the benefits of the energy transition are available to those who may otherwise be left behind.

Requirement 2 / 2b

Has the potential to deliver net benefits to consumers

Project must have the potential to deliver a Solution that delivers a net benefit to consumers of the Gas Transporter and/or Electricity Transmission or Electricity Distribution licensee, as the context requires. This could include delivering a Solution at a lower cost than the most efficient Method currently in use on the GB Gas Transportation System, the Gas Transporter's and/or Electricity Transmission or Electricity Distribution licensee's network, or wider benefits, such as social or environmental.

Please provide an estimate of the saving if the Problem is solved

n/a

Please provide a calculation and/or description of the expected benefits of the solution

PACE expects to deliver a Net Present Value (NPV) benefit of up to £26m.

The NPV is derived from four principal quantified benefit streams:

Reduced network intervention costs through the coordinated delivery of proactive de-looping and fuse upgrades. The CBA assumes that proactive de-looping activities can be undertaken more efficiently than current reactive delivery.

Reduced operational costs through the coordinated delivery of fuse upgrades.

Avoided reinforcement through the deployment of customer-owned solar PV and BESS. The CBA assumes that these technologies

reduce peak demand or participating households, creating additional headroom at constrained secondary substations. Customer-side intervention costs, including the coordinated installation of solar PV, battery storage and supporting customer engagement activities, have been included within the Method costs. The CBA assumes technology costs reduce by approximately 3% per annum in line with historic price trends.

The assessment is underpinned by three demand forecasts covering proactive de-looping, fuse upgrades and customer deployment of solar PV and battery systems. These forecasts use Future Energy Scenarios (DFES) assumptions for LCT uptake and extend beyond ED3 to assess longer-term impacts. This reduced cost and avoided reinforcement equates to a costed benefit of approximately £17m to the network to the end of ED3.

In addition to the quantified network benefits, the project is forecast to deliver approximately £9.3 million of wider societal value through reduced customer energy bills, improved health and wellbeing associated with reduced financial hardship, and carbon emissions reductions arising from increased deployment of low carbon technologies.

The project trial will validate these assumptions using real-world deployment data, enabling the cost-benefit case to be refined before consideration of wider rollout.

Please provide an estimate of how replicable the Method is across GB

The PACE delivery method has a high potential for replication across Great Britain. The project has been designed to develop a scalable, evidence-based approach to coordinated, place-based deployment of clean energy technologies that is not dependent on a specific geography or network area.

Whilst the scale and pace of deployment will vary between licence areas, UK Power Networks considers the methodology to be highly replicable and capable of supporting coordinated delivery of clean energy technologies across the GB electricity distribution sector.

Please provide an outline of the costs of rolling out the Method across GB.

The costs of rolling out the PACE methodology across Great Britain will depend on the scale of deployment, local network requirements and the level of financial support available for customer-owned clean energy technologies. The project will evaluate scalability and these cost assumptions as part of the trial.

Requirement 3 / 1

Involve Research, Development or Demonstration

Projects must have the potential to have a Direct Impact on a Network Licensee's network or the operations of the System Operator and involve the Research, Development, or Demonstration of at least one of the following (please tick which applies):

- ☐ A specific piece of new (i.e. unproven in GB, or where a method has been trialled outside GB the Network Licensee must justify repeating it as part of a project) equipment (including control and communications system software).
- ☐ A specific novel arrangement or application of existing licensee equipment (including control and/or communications systems and/or software)
- ☐ A specific novel operational practice directly related to the operation of the Network Licensees system
- ☐ A specific novel commercial arrangement

Involve Research, Development or Demonstration - Please select all that apply

- ☐ A specific piece of new equipment (including monitoring, control and communications systems and software)
- ☐ A specific piece of new technology (including analysis and modelling systems or software), in relation to which the Method is unproven
- ☒ A new methodology (including the identification of specific new procedures or techniques used to identify, select, process, and analyse information)
- ☐ A specific novel arrangement or application of existing gas transportation, electricity transmission or electricity distribution equipment, technology or methodology
- ☐ A specific novel operational practice directly related to the operation of the GB Gas Transportation System, electricity transmission or electricity distribution
- ☒ A specific novel commercial arrangement

Specific Requirements 4 / 2a

Please explain how the learning that will be generated could be used by the relevant Network Licensees

PACE will generate practical evidence on how DNOs can coordinate the deployment of clean energy technologies at a neighbourhood level, providing learning that is directly applicable across GB electricity distribution networks.

The project will develop and validate a replicable methodology covering community and customer prioritisation, partnership working, customer engagement, coordinated delivery, targeted network interventions, and the commercial, operational and governance arrangements required to support implementation. It will also provide evidence on the costs, benefits and scalability of this approach. This learning will enable other Network Licensees to assess how coordinated, place-based delivery could be incorporated into their own business planning and future price control activities. The project outputs will support the development of more efficient approaches to facilitating the uptake of clean energy technologies, improving customer outcomes, making better use of existing network capacity and reducing the need for future network upgrades.

All key learning, methodologies, reports and supporting evidence will be disseminated through the Energy Networks Association Smarter Networks Portal and industry engagement activities, enabling other Network Licensees to adopt, adapt and build upon the project's findings.

n/a

Is the default IPR position being applied?

☒ Yes

Project Eligibility Assessment Part 2

Not lead to unnecessary duplication

A Project must not lead to unnecessary duplication of any other Project, including but not limited to IFI, LCNF, NIA, NIC or SIF projects already registered, being carried out or completed. Networks must explicitly mention similar projects that they have considered and how these differ.

Please demonstrate below that no unnecessary duplication will occur as a result of the Project.

This project will not result in unnecessary duplication, as no previous initiative has undertaken a comprehensive trial of a coordinated, place-based delivery model for accelerating the deployment of low carbon technologies whilst generating evidence to support an expanded role for DNOs.

Previous innovation projects across Great Britain have explored individual aspects of the energy transition, such as customer engagement, heat pump deployment, flexibility services, local energy planning and individual LCTs. These projects have generated valuable learning in specific areas but have typically focused on individual technologies, market mechanisms or isolated elements of the customer journey.

What has not previously been undertaken is a coordinated trial that:

Brings together a DNO, energy supplier, independent installer, Local Authorities and community organisations within a single place-based delivery model.

Combines customer-owned solar PV and battery installations with proactive network interventions, including targeted de-looping, to maximise both customer and network benefits.

Develops and tests the commercial, operational, legal and governance arrangements required to support coordinated delivery and inform a future expanded role for DNOs.

Evaluates how coordinated deployment can improve customer participation, network utilisation, consumer protections and the scalability of future business-as-usual delivery.

In summary, whilst previous projects have demonstrated individual technologies and delivery approaches, PACE is the first project to integrate these elements into a single coordinated delivery model and to generate the evidence required to understand how such an approach could be implemented at scale as part of BAU activity. The project addresses a critical evidence gap, ensuring future investment and policy decisions are informed by robust, practical evidence rather than duplicating existing innovation activity.

If applicable, justify why you are undertaking a Project similar to those being carried out by any other Network Licensees.

The challenges being addressed by this project are common across DNOs, namely how they can proactively support the uptake of LCTs whilst maintaining network resilience and delivering better customer outcomes. It is therefore reasonable that some innovation projects being led by different Network Licensees have similar objectives.

Projects such as LEO, which demonstrated the value of local energy coordination and flexibility in supporting whole-system planning, and SNUG, which is demonstrating the importance of trusted community engagement and targeted support for customers in vulnerable circumstances, have generated valuable learning relevant to this project. Other projects, including CommuniPower, Neighbourhood Green, have also advanced understanding of community participation, customer behaviour and the impacts of low carbon technologies. However, these projects do not investigate how DNOs can integrate these learnings into a coordinated, place-based delivery model that combines network planning, customer engagement and delivery partnerships to accelerate LCT adoption.

PACE will generate learning on customer engagement, commercial partnerships, operational integration and business case development that is not available from previous projects.

Accordingly, whilst the project addresses a similar industry challenge to previous innovation activities, it investigates a distinct delivery approach and will generate new learning that is relevant to Network Licensees. The resulting knowledge will be disseminated through established NIA processes to support future adoption across the industry.

Additional Governance And Document Upload

Please identify why the project is innovative and has not been tried before

PACE is innovative because it tests a coordinated, place-based delivery model for enabling the uptake of LCTs that has not previously been demonstrated by a GB DNO. Rather than focusing on individual technologies, the project will explore how a DNO can work alongside energy suppliers, independent installers, local authorities, community organisations and other delivery partners to coordinate customer engagement, commercial arrangements and network readiness activities within geographically targeted communities.

The project brings together DNO led, customer-owned solar PV and battery installations, proactive network readiness activities, independent energy advice and community-led engagement within a single coordinated delivery model. Its primary innovation lies not in the individual interventions themselves, but in testing how they can be planned, coordinated and delivered by the DNO as an integrated, place-based approach for both customer and network benefit. The project will generate evidence on the commercial, operational, legal and governance arrangements required to determine whether, and under what conditions, a more coordinated role for DNOs could deliver value for customers and the wider energy system.

Whilst some of the individual components have been explored separately through previous innovation projects, they have not previously been integrated and evaluated as a single delivery model. PACE will generate evidence on the feasibility, costs, benefits and scalability of this approach, providing an evidence base to inform future regulatory decisions and potential business-as-usual adoption where appropriate.

Relevant Foreground IPR

The Project is expected to generate Relevant Foreground IPR in the form of methodologies, frameworks, processes, analytical approaches and guidance relating to the coordinated, place-based deployment of LCTs.

This is expected to include:

A scalable delivery model for coordinated deployment of customer-owned LCTs.

Commercial, operational and governance frameworks to support collaboration between DNOs, energy suppliers, installers, local authorities and community organisations.

Customer engagement and vulnerability support approaches, including place-based engagement methodologies and consumer protection frameworks.

Network planning and deployment methodologies, including approaches to coordinated deployment and proactive network interventions such as targeted de-looping.

Cost-benefit assessment results, and evidence relating to the potential role of DNOs in supporting the energy transition.

Where project partners contribute pre-existing tools, software, datasets or methodologies, these will remain the Background IPR of the relevant partner. The Relevant Foreground IPR generated through the project will comprise the new knowledge, evidence, methodologies and project learnings developed through the collaboration. Use of certain Foreground IPR may therefore require access to, or interaction with, relevant Background IPR owned by project partners, in accordance with the terms of the Collaboration Agreement.

Data Access Details

Any data gathered during the PACE project, including network analysis, customer engagement insights, technology deployment outcomes, evaluation findings and trial results, will be de-sensitised as necessary to protect commercially confidential information and personal data. Project outputs, methodologies and non-confidential datasets may be shared with interested parties where it is lawful, practicable and in the interests of GB electricity consumers. In accordance with the Innovation Data Sharing Policy, UK Power Networks will seek to make all non-personal, non-commercially confidential data generated through the project available on request, supporting wider industry learning and the adoption of coordinated, place-based approaches to low carbon technology deployment. To view the full Innovation data sharing policy, please visit UK Power Networks' website to access it [here](#).

Please identify why the Network Licensees will not fund the project as a part of its business and usual activities

Ofgem itself has decided that it would be valuable to develop a set of pilots [during RIIO-ED2] testing aspects of an expanded role as part of ED3, as referenced in Para 3.284 of SSMC. It has therefore been concluded that further real-world evidence is required to determine what an expanded role for DNOs should encompass, how it should operate in practice, what commercial and regulatory

arrangements would be required, and whether it can deliver measurable benefits for customers, the electricity network and wider society.

PACE has been designed to generate the evidence required to support a wider business as usual type deployment. We do not believe this evidence could be generated through conventional business activities, as the commercial, regulatory and operational arrangements required to support this type of role do not currently exist. NIA provides the appropriate mechanism to innovate and generate the evidence required to inform future policy and regulatory decisions. We believe the scale and exploratory nature of PACE make NIA an appropriate and proportionate funding mechanism, providing the flexibility to develop, test and refine the proposed model through a phased approach. It also enables timely delivery of the evidence needed to support ongoing consideration of an expanded role for DNOs within ED3.

Please identify why the project can only be undertaken with the support of the NIA, including reference to the specific risks (e.g. commercial, technical, operational or regulatory) associated with the project

PACE can only be undertaken with the support of the Network Innovation Allowance because it is designed to generate evidence in an area where the commercial, operational and regulatory arrangements required to support delivery do not currently exist.

The project is testing a novel, coordinated, place-based approach to deploying low carbon technologies, bringing together a DNO, energy supplier, independent installer, community engagement partners and local authorities. There is currently no established commercial framework or regulatory mechanism that enables a DNO to coordinate this type of activity, meaning there is no viable route for UK Power Networks or market participants to undertake the trial through business-as-usual activities.

For clarity, UK Power Networks will not assert or test any DNO ownership or control over the installed assets and the LCTs will be donated to the trial households as part of the project. Relevant households will require a smart meter as a condition for participation, and participants will be advised that they sign up to a time of use tariff from their supplier to benefit optimally from the installed LCTs. These installations will provide a practical mechanism through which an expanded role for DNOs can be evaluated.

These activities are being undertaken to generate evidence on customer outcomes, network impacts and future delivery models, rather than to provide a commercial service. The benefits of this learning will accrue across the wider electricity distribution sector and are unlikely to be captured by any individual organisation, limiting the commercial incentive to undertake the work independently.

PACE also carries significant regulatory, commercial and operational risks. The project will explore new commercial relationships between network operators, suppliers, installers and community organisations, whilst testing governance arrangements, consumer protections and scalable operating models to support a potential expanded role for DNOs. The outcomes of the project are uncertain and will inform future policy and regulatory decisions, meaning there is no established commercial case for private investment.

NIA therefore provides the appropriate funding mechanism by enabling UK Power Networks and its partners to undertake a time-limited trial, generate evidence that cannot currently be obtained through conventional business activities, and share the learning openly for the benefit of consumers and the wider GB electricity sector.

This project has been approved by a senior member of staff

☒ Yes