NIA Project Registration and PEA Document

Date of Submission

Oct 2024

Project Reference Number

NPG_NIA_052

Project Registration

Project Title

Supporting Warm Spaces

Project Reference Number

NPG_NIA_052

Project Licensee(s)

Northern Powergrid

Project Start

September 2024

Project Duration

1 year and 10 months

Nominated Project Contact(s)

Ella Pinder - ella.pinder@northernpowergrid.com

Project Budget

£120,000.00

Summary

This collaborative project will look to directly address the desire to support customers in vulnerable situations by supporting and improving warm space infrastructure within the Yorkshire and North East regions of England. These regions have been selected based upon the geographical coverage of the associated Network Partnership's licence areas.

Preceding Projects

NIA_NGN_422 - Vulnerability Visualisation Tool Phase 2

Third Party Collaborators

National Energy Action

Energy Innovation Centre

Egnida

Nominated Contact Email Address(es)

yourpowergrid@northernpowergrid.com

Problem Being Solved

Increased energy prices have led to an increase in fuel poverty, with more consumers struggling to heat their homes. As a consequence, access to warm spaces has become increasingly important for the most vulnerable in our communities. Warm spaces provide a safe and warm environment, a platform for social interaction, and a central space within a local community where resources and support can be shared.

Northern Powergrid and Northern Gas Networks currently support warm spaces within the Yorkshire and North East regions. Increasing demand for warm spaces will likely result in additional pressures on local charity organisations, particularly within areas of highest socioeconomic deprivation, however rising operational costs may limit the capacity of such organisations to support those in greatest need. Additionally, operating costs may limit the opening hours of certain centres and could restrict the level and/or type of support that can be provided.

Warm Spaces provide a heated and safe space within local communities. There is limited guidance on where Warm Spaces should be established, and a limited consideration of demand based upon local requirements. It is therefore likely that regions of high socioeconomic deprivation are not currently sufficiently serviced by warm space services. This is particularly prevalent in rural, coastal and suburban regions, as warm spaces are generally located in central, highly populated urban areas. It is anticipated that additional warm spaces are likely required in key locations within the Yorkshire, and North East regions.

The Network Partnership currently provide a large portfolio of consumer support services including PSR support, CO awareness, and supporting the energy transition. A number of these services have been developed via NIA and/or VCMA funding such as The Carents Room, Project Doorstop, and Powergrid Care. Difficulties in engaging with customers in vulnerable situations can limit the effectiveness of such projects and support resources, but supporting warm spaces may enable the sharing of and access to additional support packages currently provided by the DNO, GDN and TO Partners. Furthermore, supporting Warm Spaces may enable integration of other services to provide added value to the community (e.g. skills and job support, healthy eating etc.), relieve pressure on statutory resources at a time of constrained budgets and help relieve stigma and shame associated with accessing services targeted just at those living in poverty or hardship.

Method(s)

The Open Maps tool is a best-in-class visualisation tool for disparate datasets concerning consumer vulnerability. It can display many types of data in a straightforward, easy-to-use tool with powerful functionality and the potential to be used across the industry. The tool is currently undergoing further development via an NIA Funded Phase 2 project which will provide additional resource availability (data), and also incorporate the use of AI and machine learning so as to enhance the tool Proof of Concept (POC). This includes utilising the tool within the context of consumer vulnerability and as a mechanism for Utility Networks to understand socioeconomic considerations within their regions.

NEA will utilise an action research approach to identify methods of engaging with and supporting warm spaces. In addition, NEA will provide relevant training for warm space personnel and engagement/awareness sessions for vulnerable customers.

Scope

Stage 1:

· Utilise Open Maps to identify warm space locations and regions of highest socioeconomic deprivation.

Stage 2:

· Provide relevant support to the currently established warm spaces identified in stage 1. This will provide an opportunity to support/sponsor warm spaces which are serving locations of highest socioeconomic deprivation within the Yorkshire and North East regions.

· Research engagement strategies and methods of support in order to develop a 'Toolkit Approach'.

Stage 3:

· Develop new warm space(s) within the Yorkshire and North East regions in preparation for winter 2025-26 and beyond.

· Apply learnings from Stage 1 and Stage 2, and test 'Toolkit Approach'.

Objective(s)

Stage 1: Discovery and Development

· Further development of the Egnida Open Maps tool.

· Engagement with relevant local/community stakeholders and commercial enterprises (Open Innovation, Citizens Advise). This will

· Maps proxy data for the determination of socioeconomic deprivation.

· Development of proxy data weighting method.

Stage 2: Warm-Space Support, 2024-25

· Utilise Open Maps to identify 40 priority warm spaces within the Yorkshire and North East regions.

· Identify warm space requirements for support and investigate potential support packages.

· Provide support for selected Warm Space organisations within the Yorkshire and North East regions. This will include community-based energy efficiency sessions.

· Engage with vulnerable customers and provide visibility of additional support packages available. This could include current Network support mechanisms or NIA/VCMA sponsored projects.

· NEA will offer training and development opportunities for selected warm space volunteers and organisations.

· Research on guidance and best-practice for supporting warm spaces. Research into warm space engagement and support via NEA: undertake both action research, to shape and inform the development of good practice guidance in respect to setting up and delivering Warm Spaces, and evaluation of the implementation of the guidance in future Warm Spaces.

Stage 3: Warm-Space Support, 2024-25

· Onboard learnings from previous Warm Space engagement.

· Utilise Open Maps to identify priority regions located in Yorkshire and North East regions which are not currently sufficiently serviced by a warm space.

· Engagement with relevant local/community stakeholders and commercial enterprises (Open Innovation, Citizens Advise). This will provide opportunity to understand local mechanisms for designing and implementing new Warm Space centres (this is likely to vary depending upon location and Local Authority).

· Design of mechanism/framework for developing/sponsoring new warm space(s) within the selected priority region(s).

· Rollout of new Warm Space(s) and associated/additional support packages.

· Development of final programme evaluation.

· Final Project Workshop to engage with warm spaces to obtain feedback/final comments on any project outputs.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

Project has been assessed to have a positive benefit (see tool output attached)

Success Criteria

The quality and performance criteria for the project's outputs and deliverables must/should satisfy essential high priority requirements for the project to be successful:

· The project must identify regions of highest socioeconomic deprivation for support provision.

· The project must support current Warm Space(s) within the Yorkshire and North East regions.

· The project must develop new Warm Space(s) within high priority regions which are not currently sufficiently serviced.

· The project must provide a new method for The Network Partnership to engage with vulnerable customers.

· The project must ensure enduring support.

Project Partners and External Funding

Egnida Innovation

Egnida Innovation is an award-winning digital consultancy, applying technology to energy industry problems with a particular focus on social issues. Egnida Innovation have considerable experience working within the energy distribution sector to produce a prototype visualisation tool. The Open Maps tool is currently undergoing a second phase of development to enhance its capabilities via the implementation of Artificial Intelligence (AI) and Machine Learning (ML). This project provides an opportunity to test and utilise Open Maps in real-world scenarios, and to support the energy networks in developing opportunities for supporting customers in vulnerable situations.

National Energy Action (NEA)

National Energy Action (NEA) is a national charity that works across England, Wales, and Northern Ireland to ensure that everyone in Great Britain can afford to live in a warm, dry home. NEA's in-house Research Team has over 30 years' combined experience of working on and researching fuel poverty, domestic energy issues and the impact of associated policy and practice interventions. NEA is a members-based organisation with over 200 members drawn from across the public and private sectors, including energy supply and distribution. It also provides the secretariat for the All-Party Parliamentary Fuel Poverty & Energy Efficiency Group to raise awareness of the problem of fuel poverty and the policies needed to eradicate it.

NEA is an industry leader in supporting frontline organisations and vulnerable households with a range of interventions, including the Warm and Safe Homes Helpline, advice resources and upskilling and training for frontline staff members and volunteers. Further to this offer, NEA has extensive experience of the conception, planning, and delivery of a range of community events which are adaptive to audience and need.

Network Partners

This project is supported by Northern Powergrid (Lead), Northern Gas Networks, National Grid Electricity Transmission and National Gas, who are equal funding partners.

Potential for New Learning

This project will provide insight and new learnings associated with supporting customers in vulnerable situations. The project will implement tools and learnings which have been developed across other NIA/VCMA projects and integrate teams from across The Network Partnership. Fundamentally, the project will provide insight into how The Network Partnership can collaborate to provide support to vulnerable customers through the sponsorship and development of Warm Space services within the Yorkshire and North East regions. Learnings will also provide insight into how engaging with local charities and organisations, in support of customers in vulnerable situations, can assist in the dissemination of alternative support programs/projects which are currently provided by the Networks.

NEA can add value to the warm space programme by delivering some of their relevant pre-existing activities in the warm spaces identified in both Stage 2 and Stage 3. This could include delivery of NEA's 'Warm Welcome' project, which supports new and expecting mums and their families, and the 'Empowered by Energy' programme, supporting refugee and asylum seekers. Each of these projects is being funded by NGN from April 2024 to March 2026 and will be delivered at community level to ensure support is targeted towards the right areas. Warm spaces that are supported through this project could be used as venues to host sessions such as those mentioned above.

Scale of Project

Stage 1 of this project will utilise Open Maps to identify existing warm spaces. Stage 2 of the project will involve the Network Partnership directly supporting those warm spaces considered to be serving the most vulnerable communities (identified using agreed proxy measures). This Stage will be completed during Winter 2024/25. Support will include financial assistance, sharing of current NIA/VCMA projects, sharing of combined network partner knowledge and experience, and sharing of additional support packages currently offered by the networks. In addition, training for warm space volunteers and practical support for vulnerable customers will be provided by National Energy Action (NEA). NEA will lead on the research and engagement throughout Stage 2, the learnings of which will help guide the development of Stage 3.

Stage 3 of this project is proposed for winter 2025/26. The Network Partnership will leverage learnings from Stages 1-2, and will utilise a similar identification approach to target areas of high vulnerability that are not already sufficiently served by a warm space with a view to addressing those gaps with the right partnerships and investment.

By combining the resources, relationships and expertise of all parties, the project is aiming to create a holistic, 'whole system'

approach to tackling consumer vulnerability which optimises benefits for consumers in vulnerable situations.

Technology Readiness at Start

TRL3 Proof of Concept

Technology Readiness at End

TRL4 Bench Scale Research

Geographical Area

The project will cover all of NGN's, and NPg's operational areas. Many of the public datasets which will bThe project will cover all of NGN's, and NPg's operational areas. Many of the public datasets which will be used in the project are England, England and Wales, GB or UK wide and will be included in their entirety. The learnings from this project will be applicable for other regions. e used in the project are England, England and Wales, GB or UK wide and will be included in their entirety. The learnings from this project will be applicable for other regions.

Revenue Allowed for the RIIO Settlement

Indicative Total NIA Project Expenditure

£120,000

Project Eligibility Assessment Part 1

There are slightly differing requirements for RIIO-1 and RIIO-2 NIA projects. This is noted in each case, with the requirement numbers listed for both where they differ (shown as RIIO-2 / RIIO-1).

Requirement 1

Facilitate the energy system transition and/or benefit consumers in vulnerable situations (Please complete sections 3.1.1 and 3.1.2 for RIIO-2 projects only)

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

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

n/a

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

This collaborative project will look to directly address the desire to support customers in vulnerable situations by supporting and improving warm space infrastructure within the Yorkshire and North East regions of England.

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 (RIIO-1 projects only)

N/A

Please provide a calculation of the expected benefits the Solution

See SROI benefit tool output

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

The Method is expected to replicable across all GB networks

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

Costs of rollout will be considered in the project outputs

Requirement 3 / 1

Involve Research, Development or Demonstration

A RIIO-1 NIA Project 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

RIIO-2 Projects

☐ 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

This project will provide insight and new learnings associated with supporting customers in vulnerable situations. The project will implement tools and learnings which have been developed across other NIA/VCMA projects and integrate teams from across The Network Partnership. Fundamentally, the project will provide insight into how The Network Partnership can collaborate to provide support to vulnerable customers through the sponsorship and development of Warm Space services within the Yorkshire and North East regions. Learnings will also provide insight into how engaging with local charities and organisations, in support of customers in vulnerable situations, can assist in the dissemination of alternative support programs/projects which are currently provided by the Networks. NEA can add value to the warm space programme by delivering some of their relevant pre-existing activities in the warm spaces identified in both Stage 2 and Stage 3. This could include delivery of NEA's 'Warm Welcome' project, which supports new and expecting mums and their families, and the 'Empowered by Energy' programme, supporting refugee and asylum seekers. Each of these projects is being funded by NGN from April 2024 to March 2026 and will be delivered at community level to ensure support is targeted towards the right areas. Warm spaces that are supported through this project could be used as venues to host sessions such as those mentioned above.

Or, please describe what specific challenge identified in the Network Licensee's innovation strategy that is being addressed by the project (RIIO-1 only)

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.

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

Current warm space infrastructure information will be onboarded from Open Innovation and the NGN sponsored warmhubs.com online resource to minimise the duplication of efforts where there is already established warm space infrastructure in place.

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

N/A

Additional Governance And Document Upload

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

NEA will utilise an action research approach to identify methods of engaging with and supporting warm spaces. In addition, NEA will provide relevant training for warm space personnel and engagement/awareness sessions for vulnerable customers.

Relevant Foreground IPR

ML Models

Models created by the machine learning platform used to predict vulnerability

Excel Plugins

Plugins built for Excel which convert partner data into a format which can be consumed by the visualisation tool.

API Documentation

Descriptions of the functions and access instructions from API access to the data.

Data Access Details

Contact project lead

Please identify why the Network Licensees will not fund the project as apart of it's business and usual activities

The project will leverage an existing innovation project, the Open Maps tool, previously the Vulnerability Visualisation Tool, to identify locations of greatest socioeconomic deprivation, and locations where supportive investment will have the greatest impact. The nature of the research and uncertainty around outcome, mean it is suited to be delivered through innovation funding.

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

The uncertainty around engagement of current warm spaces and whether a positive engagement outcome will result, mean the project is suited to be delivered through innovation channels rather than BAU processes.

This project has been approved by a senior member of staff

☑ Yes