Notes on Completion: Please refer to the appropriate NIA Governance Document to assist in the completion of this form. The full completed submission should not exceed 6 pages in total.

NIA Project Registration and PEA Document

Date of Submission

Mar 2025

Project Reference Number

NIA_SPEN_0110

Project Registration

Project Title

WARMTH (Wellbeing and Resilience through Medical-Thermal Heating)

Project Reference Number

NIA_SPEN_0110

Project Licensee(s)

SP Energy Networks Distribution

Project Start

March 2025

Project Duration

0 years and 5 months

Nominated Project Contact(s)

Aigbokhan Asibor

Project Budget

£130,000.00

Summary

Project WARMTH (Wellbeing and Resilience through Medical-Thermal Heating) is a discovery innovation effort that aims to explore how the 'Warm Home Prescription' model can be implemented to integrate Distribution Network Operators.

The WHP model typically identifies people with health conditions made worse by the cold and prescribes them a warm home via vouchers or home improvements. Under this model, health practitioners identify people whose health conditions are likely to worsen by living in a cold home and prescribe them 'warmth'.

DNOs are the natural energy industry partner for this collaborative effort. The involvement of DNOs can maximise the impact of the WHP model given their complete regional coverage and the broad range of support offered.

The chosen model will be tested in future stages of the project.

Third Party Collaborators

SIRIO Multilateral Strategies Ltd

Nominated Contact Email Address(es)

innovate@spenergynetworks.co.uk

Problem Being Solved

In the ED2 period, the DNOs are required and incentivised to deliver an ambitious consumer vulnerability strategy that aims to tackle (i) fuel poverty (FP) and (ii) the risk that customers may be left behind in the energy system transition (LCT). DNOs face challenges in

identifying high numbers of low-income and vulnerable people, as many do not recognise themselves as vulnerable. Identification is particularly challenging for customers who are most likely to benefit from living in a warm home. This project proposes a solution to this identification problem and enables the DNOs to enhance the volume and targeting of vulnerability support delivered in ED2 and beyond.

Method(s)

The 'Discovery' phase of project WARMTH will be delivered in five phases:

- Phase 1 – Study existing material on WHP trials in detail to extract opportunities, learnings and challenges to address.
- Phase 2 – Leverage an in-depth understanding of SPEN's (and other DNOs') vulnerability programme to propose one or more possible WHP operating models, clearly specifying strengths and weaknesses.
- Phase 3 – Test operating models with (i) SPEN, (ii) Delivery Partners, (iii) possible health partners, (iii) expert stakeholders with experience in the delivery of WHP
- Phase 4 – Produce a cost/benefit analysis of each model
- Phase 5 – Make a recommendation on the optimal model(s) and final suggestion for a Phase 2 test(s).

Scope

The scope of this project consists of:

- Review of material produced to capture learnings of previous WHP models to identify strengths and weaknesses
- Definition of possible WHP operating models in the context of the DNOs' vulnerability remit and the support programmes currently delivered
- Stakeholder engagement to test the potential and shape the preference for proposed WHP models
- Development of a cost-benefit analysis to support the selection of the preferred WHP model
- Production of recommendations and clear next steps to test the suggested WHP model

The project is expected to have significant net benefits for customers, the public sector and the environment.

- Fuel poor customers affected by medical issues will benefit financially from increased disposable income driven by lower expenditure on heating and, more generally, energy costs. They will also experience significant wellbeing benefits driven by the ability to heat their home properly – this will drive increased life satisfaction and, most importantly, improved health outcomes in the context of cold-related health issues that initially led to the 'warmth prescription'.
- Environmental benefits in the form of reduced CO2 emissions linked with energy use will stem from the installation of energy efficiency and low carbon heating solutions provided to customers referred by health practitioners to the DNOs.
- Public sector benefits will stem from the improved health outcomes enjoyed by customers with cold and damp-related illnesses effectively resolved by the provision of warmth linked to the support delivered by the DNOs. These benefits include avoided hospitalisations, GP visits, ambulance call outs, among others.

Objective(s)

The 'Discovery' phase of project WARMTH will seek to answer the following questions:

- What is the optimal operating model for a DNO to embed the WHP
- Who are the relevant parties and what are their respective roles
- What data is required to capture the SROI impact of this model? How will this data be captured and by whom?
- What is the experience from a customer's perspective and how can this be made as smooth as possible?
- How will support delivered via this channel co-exist with customers supported via standard/alternative channels?
- How can this model be tested in the next phase? Who are the relevant parties and what are their roles?

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

Customers in vulnerable situations are the main beneficiaries of method and solution. As described in Section 2.3 above, fuel poor customers affected by medical issues will benefit financially from increased disposable income driven by lower expenditure on heating and, more generally, energy costs. They will also experience significant wellbeing benefits driven by the ability to heat their home properly – this will drive increased life satisfaction and, most importantly, improved health outcomes in the context of cold-related health issues that initially led to the 'warmth prescription'.

Success Criteria

Delivery of a clear WHP model that:

- Specifies the types of organisations required and their respective roles
- Is compatible with the structure and objectives of the DNOs' current vulnerability programmes
- Is informed by expert stakeholder engagement
- Is informed by a cost-benefit analysis
- Is supported by next steps to test its feasibility

Project Partners and External Funding

This project is led by Sirio Multilateral Strategies LTD ('Sirio') with the support of the Energy System Catapult.

Potential for New Learning

The project will generate learnings on promising channels that energy networks can implement to increase the efficiency, reach and ultimately, the social impact of fuel poverty and low carbon transition support in the ED2 period and beyond.

Specifically, this project will generate learnings on:

- The optimal operating model for a DNO to embed the WHP
- The relevant parties involved and their respective roles in the optimal WHP operating model
- The data required to capture the SROI impact of this model, along with the methods of data collection and responsible parties.
- The optimal customer experience with a focus on ensuring a smooth and seamless process for the energy networks, the health sector and the end-customer.
- The coexistence of support delivered via this channel with customers supported through standard or alternative channels currently deployed by the networks to deliver their fuel poverty and low-carbon-transition programmes.
- The approach for testing this model in practice.

Scale of Project

The project will develop a WHP model that can be adopted by the DNOs in the context of their vulnerability programmes, shaped by the CV-ODI. The small scale of the project reflects the definition of an optimal model to be tested and implemented in further phases. A smaller scale would not answer key questions that must be answered to define an effective and efficient delivery model for the DNOs' vulnerability programmes

Technology Readiness at Start

TRL4 Bench Scale Research

Technology Readiness at End

TRL5 Pilot Scale

Geographical Area

The focus of the discovery project will be on SP Energy Networks license areas

Revenue Allowed for the RIIO Settlement

£0

Indicative Total NIA Project Expenditure

£130,000

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:

The project will connect customers in vulnerable situations affected by health conditions worsened by cold and damp environments with DNOs. The DNOs can offer a range of fuel poverty and low-carbon transition support that lead these customers in warmer homes, improving their living conditions and addressing (and preventing) cold-and-damp related health issues.

This outcome can be achieved through the delivery of energy efficiency improvements, the installation of energy technologies, guidance and training in adopting low-carbon and energy saving behaviours, among other interventions. These interventions enable the energy system transition within a hard-to-reach group that is typically considered at a high risk of being left behind.

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

The project primarily benefits customers in vulnerable situations – this is explained in the response to 3.1.1. Furthermore, as described in Section 2.3 fuel poor customers affected by medical issues will benefit financially from increased disposable income driven by lower expenditure on heating and, more generally, energy costs. They will also experience significant wellbeing benefits driven by the ability to heat their home properly – this will drive increased life satisfaction and, most importantly, improved health outcomes in the context of cold-related health issues that initially led to the 'warmth prescription'.

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

N/A

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

The project will output a specific WHP model that can be tested and implemented by energy networks across GB to enhance the targeting and volume of consumer vulnerability support. The proposed model will be developed considering the typical interaction the health and energy sector across England, Scotland and Wales – this is because the geographical scope of the project is set to SPEN's network license areas. It follows that the method and the solution (i.e. the suggested model) will be highly replicable across GB.

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

The method and solution produced by this project will be readily applicable across GB at no extra cost.

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

The learnings generated by this project will allow DNOs to test and implement WHP models as a delivery channel in the context of their consumer vulnerability programmes. Specifically, the DNOs can use the learnings to:

- Implement an optimal operating model to embed the WHP
- Identify, contact and recruit the necessary parties involved in the model and their respective roles
- Collect the data required to capture the SROI impact of this model, along with the methods of data collection and responsible parties.
- Establish the optimal customer experience with a focus on ensuring a smooth and seamless process for the energy networks, the health sector and the end-customer.
- Manage the coexistence of support delivered via this channel with customers supported through standard or alternative channels currently deployed by the networks to deliver their fuel poverty and low-carbon-transition programmes.

These learnings will be accessed directly via the project's final report.

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.

A search of the ENA smarter network portal and publication on the ENA huddle portal has revealed no other projects carrying out this specific work. This is expected given the novelty of the WHP concept in addition to its innovative applications to an energy network

context.

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

This project will develop a WHP model that can be implemented by the DNOs. This is innovative because Warm Home Prescription is a novel concept that has only been trialled twice in GB with a limited number customers in small geographical areas. These trials only included energy suppliers and did not consider the extension of the model to network operators. It follows that the project is innovative not only because it tests an innovative concept but also due to the novel application to a different sector.

Relevant Foreground IPR

N/A

Data Access Details

The SP Energy Networks Data Sharing Policy can be found here.

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

The DNOs' business-as-usual activities in the context of vulnerability support focus on the delivery of services in partnership with third parties. The funding, defined as part of the DNOs' ED2 vulnerability strategies, centres on the delivery of support through established channels and does not include provisions for the exploration of novel methods or channels that could improve the effectiveness and impact of the support currently being delivered.

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

This project requires NIA support due to its innovative nature and unprecedented implementation. NIA funding enables the exploration of a novel concept in a new area, facilitating the development and assessment of pioneering solutions. The key risk that NIA funding mitigates in the context of this project is that the investment necessary to explore, develop and refine a new delivery model for vulnerability support cantered around the WHP concept will divert significant funding away from the delivery of the very support. This creates a regulatory risk for the networks as a lack of funding can jeopardise the achievement of support volumes and the relative social impact targets. It also leads to significant foregone benefits for customers in significant need of support. The NIA funding unlocks the development of a new delivery channel that can amplify the impact of the DNOs' support while ensuring there is enough business-as-usual funding for the networks to deliver the services and impact to which they have committed over the ED2 period.

This project has been approved by a senior member of staff

☑ Yes