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

Dec 2013

Project Reference Number

Project Registration

Project Title

Vulnerable Customers and Energy Efficiency

Project Reference Number

Project Licensee(s)

UK Power Networks

Project Start

January 2014

Project Duration

4 years and 0 months

Nominated Project Contact(s)

UKPN Innovation Team

Project Budget

£5,490,000.00

Summary

The government's Low Carbon Transition Plan necessarily has an impact on customers' energy bills. Those with the potential to be hardest hit include the 4.5 million fuel poor in the UK (2011, DECC), of which a significant number are also vulnerable in some way.

Separately, the Distribution Network Operators (DNOs) are forecasting increasing and more uncertain demands on their networks as the result of the electrification of heat and transport and the increased reliance on micro-generation and distributed generation (DG). The more customers that participate in providing time-shifting or Demand Side Response (DSR) and the more customers that can achieve sustained energy savings, the more it will help to mitigate this substantial challenge.

VCEE reflects UK Power Networks' desire to support these customer groups and allow them to fully participate in DSR and energy saving opportunities, reducing their own bills, accessing offers, and playing a small but socially important role in supporting the network. It will provide DNOs with evidence-based learning on the extent that fuel poor can engage in such activities and consequently how their move and reduction in demand benefits the network by deferring or avoiding network reinforcement.

VCEE will run in the London Borough of Tower Hamlets; which has a high penetration of fuel poor customers, social housing and tower blocks. We will conduct two trials: demand reduction and demand shifting, by providing 550 households in 2 groups with a smart meter, simple energy saving and energy shifting devices, energy advice and Time-of-Use tariffs. The trials will research the effectiveness of techniques and capture learning on the:

- Level of response from fuel poor to smart meter data & price signals
- Energy cost savings achieved from customer interaction and network benefits
- Improved demand profiling for these customers
- What engagement material & channels were effective in supporting their behaviour.

In future, these activities will largely be replicated through existing supplier obligations. The additional activities for the DNO are relatively low cost, providing a positive cost-benefit for DNO customers overall and significant benefits to the communities affected.

The project has attracted substantial external funding.

Nominated Contact Email Address(es)

innovation@ukpowernetworks.co.uk

Problem Being Solved

Method(s)

Scope

Objective(s)

The overarching aim of this project is to understand the requirements of the fuel poor (which have a significant overlap with those who are vulnerable) and explore the means to encourage their increased participation in energy efficiency and in Time-of-Use (ToU) tariffs. This in turn will have the effect of suppressing network loads and shifting their energy usage away from peak demand periods.

The project's six core objectives are to research and build evidence-based learning on:

- How to identify and use existing trusted social resources to effectively engage fuel poor customers in the adoption and use of smart metering technologies;
- The amount of energy savings (in energy and monetary terms) arising from a set of intervention measures tailored to the specific resources and needs of the trial area community;
- The amount of energy shifting arising from a package of intervention measures tailored to the specific resources and needs of the trial area community
- The impact on network reinforcement from reduction or shift in energy consumption
- Improved demand profiling for these customers
- What engagement material and communications channels were effective in reinforcing and supporting their behaviour.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

n/a

Success Criteria

n/a

Project Partners and External Funding

n/a

Potential for New Learning

n/a

Scale of Project

n/a

Geographical Area

Revenue Allowed for the RIIO Settlement

Indicative Total NIA Project Expenditure

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:

n/a

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

n/a

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

n/a

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

n/a

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

☐ Has the Potential to Develop Learning That Can be Applied by all Relevant Network Licensees

Is the default IPR position being applied?

☐ Yes

Please demonstrate how the learning from the project can be successfully disseminated to Network Licensees and other interested parties.

Please describe how many potential constraints or costs caused, or resulting from the imposed IPR arrangements.<

Please justify why the proposed IPR arrangements provide value for money for customers.

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.

n/a

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

n/a

Relevant Foreground IPR

n/a

Data Access Details

n/a

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

n/a

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

n/a

This project has been approved by a senior member of staff

☑ Yes