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 2016

Project Reference Number

NIA_NGN_180

Project Registration

Project Title

Back Blade Protector

Project Reference Number

NIA_NGN_180

Project Licensee(s)

Northern Gas Networks

Project Start

December 2016

Project Duration

0 years and 4 months

Nominated Project Contact(s)

John Pickering

Project Budget

£11,642.00

Summary

The scope of the project is to demonstrate the Back Blade protectors are fit for purpose and can be retro fitted to all mini excavators with back blades.

We will purchase 6 protectors and fit them onto our mini excavators blades for a period of 3 months. The back blade protectors are mainly made from 80% recycled material and utilize old excavator tracks so it is a solution which is environmentally friendly in all aspects.

Monitor throughout this period and undertake feedback from all interested parties.

Third Party Collaborators

Chippendales

Nominated Contact Email Address(es)

innovation@northerngas.co.uk

Problem Being Solved

When excavating using a mini excavator, the operator must put the back blade on the ground for stability. This operation can cause marking of the highway. This marking becomes more of a problem in warm weather and ‘hard’ ground conditions.

This problem can be unsightly and can be defected by the local authority, also it has led to customer complaints.

This can impact on our company image.

Method(s)

Currently when scaring takes place, the only way to rectify it is by undertaking a further reinstatement where all the work has to be guaranteed for at least two years. If the council inspectors defect the work through scaring, this can impact on our stakeholder relationship and can potentially lead to an improvement notice.

Scope

The scope of the project is to demonstrate the Back Blade protectors are fit for purpose and can be retro fitted to all mini excavators with back blades.

We will purchase 6 protectors and fit them onto our mini excavators blades for a period of 3 months. The back blade protectors are mainly made from 80% recycled material and utilize old excavator tracks so it is a solution which is environmentally friendly in all aspects.

Monitor throughout this period and undertake feedback from all interested parties.

Objective(s)

The objective is to test and validate the back blade protectors and make sure they are fit for purpose and then promote the solution as best practice across the network in all work streams and promote its possibilities to other networks.

Throughout the trial we will develop the back blade protector to make it user friendly and easy to fit to the majority of mini excavator.

Gain the confidence of the operators in the new equipment and gain their approval.

Review the 3 month trial.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

n/a

Success Criteria

The project will be deemed a success if the following criteria are met:-

- Reduction in defects.
- Less Customer complaints.
- Sign on from our stakeholders (Local authorities).
- Reduction in revisits to sites to undertake ‘cut outs’ for scaring on the highway surface.
- A cost benefit for the new equipment.
- Time saving on dealing with site meetings.
- Less damage to the trailers from the back blade (on access and egress).
- Reduce impact on the environment.

Project Partners and External Funding

n/a

Potential for New Learning

n/a

Scale of Project

The project will be initially be within the South of the NGN network but if it is deemed a success all utilities and mini excavator manufacturers could develop and utilize this equipment going forward.

Technology Readiness at Start

TRL4 Bench Scale Research

Technology Readiness at End

TRL8 Active Commissioning

Geographical Area

The project initially will be in Yorkshire for the trial period.

Revenue Allowed for the RIIO Settlement

N/A

Indicative Total NIA Project Expenditure

NGN external expenditure- £8732

NGN Internal expenditure- £2910

Total expediture- £11,642

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)

This project has the potential to save an estimated £46,400 per year.

Please provide a calculation of the expected benefits the Solution

There have been approx. 40 defects across the network in the last year, a defect has a fine of £47.50 from the local authority, to rectify any defect it costs a minimum of £1000, that includes site visits, labour and materials.

Also most scaring is dealt with directly on site and is not recorded separately from any other reinstatement.

Customer

Reduction in customer complaints, approximately 12 per annum.

Impact on commuters traveling, delays waiting in traffic management systems.

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

The piece of equipment that will be developed can be replicated in all the networks.

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

The units at present can be produced for £458, this is the cost for the prototype so it is anticipated that this will reduce over time.

Depending on how many excavators each GDN uses will determine the roll out 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

By undertaking the project this piece of equipment can be adopted by all networks

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

This will address NGN's strategy towards customer complaints together with improving stakeholder relations.

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

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.

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