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

Aug 2016

Project Reference Number

NIA_NGN_166

Project Registration

Project Title

Risk Assessment for Overbuilds

Project Reference Number

NIA_NGN_166

Project Licensee(s)

Northern Gas Networks

Project Start

August 2016

Project Duration

0 years and 4 months

Nominated Project Contact(s)

Iain Foster

Project Budget

£25,532.00

Summary

1. Defining the definition of a building to be incorporated into NGN's build over policy.
2. Develop a formal risk assessment approach/decision tree for built over mains that would stand the test of an HSE challenge

Third Party Collaborators

DNV

Nominated Contact Email Address(es)

innovation@northerngas.co.uk

Problem Being Solved

NGN has an ongoing program of works to remediate distribution pipes that have been built over. As this program has developed it has become apparent that the definition of a built over pipe and hence definition of a building is unclear in existing policy and operation procedures. Therefore there is a need to develop a formal risk assessment/decision tree approach to ensure that the program of works is fit for purpose and pipes are been remediated based on their risk.

Method(s)

Revaluating NGN's current policy and procedures on built over mains in order to enable work that is both safer and better risk assessed.

Scope

1. Defining the definition of a building to be incorporated into NGN's build over policy.

2. Develop a formal risk assessment approach/decision tree for built over mains that would stand the test of an HSE challenge

Objective(s)

A report detailing the analysis carried out and the final risk assessment/decision tree for overbuilds in various locations/situations.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

n/a

Success Criteria

The project will be deemed successful, if a risk based decision tree has been developed that results in

- Safety improvements
- Facilitates the development of innovative remediation techniques to mitigate the risk from close proximity to property like annulus sealing for example

Project Partners and External Funding

n/a

Potential for New Learning

n/a

Scale of Project

Revaluating NGN's current policy and procedures on built over gas distribution mains

Technology Readiness at Start

TRL7 Inactive Commissioning

Technology Readiness at End

TRL8 Active Commissioning

Geographical Area

The Project encompasses the entire NGN network geography.

Revenue Allowed for the RIIO Settlement

n/a

Indicative Total NIA Project Expenditure

£19,151 total external cost (x1.3332 internal funding calculation) = £25,532

£25,532 x 90% (recoverable NIA funding) = £22,979

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)

Savings can be achieved because the newly developed risk based decision tree approach will enable the application of alternative remediation methods that are less cost and work intensive than the traditional PE insertion method.

Please provide a calculation of the expected benefits the Solution

See above

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

This Method can be applied to all built over distribution mains across the UK.

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

(project costs*number of GDNs) = (£25,532*4) = 102,128

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 risk based decision tree approach can be easily incorporated into their procedures for the remediation of built over distribution mains.

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 project addresses the challenge of Network and Asset Management which is one of NGN's four strategy focus areas.

☑ 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