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

Jun 2017

Project Reference Number

NIA_CAD0003

Project Registration

Project Title

Connections Forecasting Feasibility Study

Project Reference Number

NIA_CAD0003

Project Licensee(s)

Cadent

Project Start

May 2017

Project Duration

0 years and 3 months

Nominated Project Contact(s)

Nicholas Cannon – Project Manager Stuart Easterbrook – Project Sponsor Darren Marcus – Technical Lead Yanguo Jing & Rahat Iqbal – Supplier – Coventry University

Project Budget

£26,022.00

Summary

The Scope of this Project is all UK industry connections, non-standard connections, alterations and disconnections. This includes connections made by UIPs and IGTs.

Nominated Contact Email Address(es)

Innovation@cadentgas.com

Problem Being Solved

Lack of clarity over Connection market share and no accurate forecasting model for future Connections workload. In order to provide excellent service to our customers, we need to ensure sufficient resources are available to meet our customer's requirements and aspirations. Short to medium term regional workload forecasts will facilitate effective resource planning. In addition, our Regulator requires us to forecast future workloads when considering our future allowances. The objective of this study is to identify total market, and any correlation with, for example, housebuilding? What drives the changes in that factor, such as government policy and economic factors, and then to identify what Cadent's market share is, dependent on a range of factors such as, pricing, reputation, marketing and overall company strategy.

Method(s)

Project to be broken down into two Phases – both Phases to be delivered by our project partners at Coventry University. Phase 1 – to last two calendar months, with its deliverable being a Feasibility report confirming whether such a forecasting model is feasible, the timescales to produce the model, the data requirements, the development costs, the ongoing maintenance costs and the success criteria for the model. This Feasibility report is to be reviewed by National Grid Gas Distribution before a decision is made to move the Project onto Phase 2. Phase 2 consists of Coventry University developing and testing the agreed model, against the success criteria set out.

Scope

The Scope of this Project is all UK industry connections, non-standard connections, alterations and disconnections. This includes connections made by UIPs and IGTs.

Objective(s)

The Objective of this Project is to determine whether it is feasible to create a forecasting model for future UK connections demand. If we can't deliver this model, why is it not feasible? If we can, Coventry University is tasked with creating an accurate forecasting model that meets all of the desired criteria set out in the Project brief.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

n/a

Success Criteria

A categorical analysis of whether we can accurately forecast Connection demands for a future period of 7 year

If we can, Coventry University, as our partner, must develop a forecasting model that incorporates all requested variables as well as accurately predicting the role we, as a business, will have to play as the Connections market continues to develop.

Project Partners and External Funding

n/a

Potential for New Learning

n/a

Scale of Project

All 4 retained Gas Distribution Networks.

Technology Readiness at Start

TRL2 Invention and Research

Technology Readiness at End

TRL3 Proof of Concept

Geographical Area

All 4 retained Gas Distribution Networks.

Revenue Allowed for the RIIO Settlement

none

Indicative Total NIA Project Expenditure

£26,022

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

The Forecasting Feasibility Study will either prove to other relevant Network Licensees that it isn't feasible to forecast future connections workload – and therefore prevent them from attempting to complete a similar study. However, if the feasibility study indicates that we can create an accurate forecasting model, this model can be shared amongst relevant Network Licensees, allowing all GDNs and UIP/IGTs to have a clear understanding of their market share, and also better preparing those parties for future Connections demand.

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

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