

## NIA Project Registration and PEA Document

### Date of Submission

Apr 2020

### Project Reference Number

NIA\_CAD0057

## Project Registration

### Project Title

Decision Tool

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NIA\_CAD0057

### Project Licensee(s)

Cadent

### Project Start

April 2020

### Project Duration

1 year and 3 months

### Nominated Project Contact(s)

Cadent Innovation Team

### Project Budget

£72,648.00

## Summary

Development of an interactive decision tool to support conversations with customers in vulnerable situations.

### Nominated Contact Email Address(es)

Innovation@cadentgas.com

## Problem Being Solved

During gas interruptions the customer is provided with alternative provisions. Decisions are made by the engineer on site however provisions & services now available has increased and these could impact on customer wellbeing if incorrect provision is provided. Customers on the Priority Service Register (PSR) need to be kept updated and, if they are identified as being at-risk, they must also be supplied with alternative provisions that best fit their specific needs.

The current approach to this problem uses a manual identification process – meaning that colleagues need to remember which services/products there are available to support certain situations - based on common sense and an employee's own judgement during visits.

## Method(s)

To produce an interactive solution that can make recommendations of 'Services for All' customers in vulnerable situations and link to the next steps of delivery and/or installation.

The solution will be an interactive software application that will use integrated data systems and a bespoke model to identify and prioritise at-risk customers and produce an informed list of recommended products and services to customers.

## Scope

To efficiently develop the interactive software tool, we will be using our agile software development process. We propose to develop the solution in 7 sprints with the development work falling into the following key work streams:

#### Systems Integration (Sprint 1-2)

- Integration with internal data feeds
- Host solution in cloud-based environment

#### User Interface Development (Sprint 2-6)

- Requirements collation
- User interface mock-ups
- User Interface development

#### Model Development (Sprint 3-6)

- Requirements collation
- Model Architecture Design
- Model Development
- Penetration Testing

#### Product Delivery (Sprint 6 & 7)

- Field Testing & Trials
- Deployment

### Objective(s)

To deliver an interactive solution to aid discussion with customers during interruptions and provide the best solutions & advice to meet their needs. The solution will:

- Be a standalone application
- Integrate with multiple data feeds
- Can be updated manually when data is not available
- Easy to navigate & be user friendly
- Adhere to GDPR legislation
- Consider all PSR codes & needs of customers
- Easily integrated into existing systems
- Capability to change/add/remove products & services
- Provide a reporting MI dashboard
- Provide certainty and restraint for field engineers when offering products & services

### Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

n/a

### Success Criteria

A deployable software application which will work standalone and then be incorporated into the new & existing software solutions.

### Project Partners and External Funding

Energy Innovation Centre & Frazer Nash Consultancy  
The project will be wholly funded by the NIA.  
Total cost: £128,250

### Potential for New Learning

State-of-the-art web-based technologies will be used to develop interactive software solution. The data collated from this application could be used to provide metrics to help monitor and improve customer care.

### Scale of Project

The scale of this project will be across all Cadent networks however learnings will inform all Gas Distribution Networks which all utilise the PSR database to manage their customers who would be in vulnerable situations. The scale of investment in this project is necessary as feasible solutions have not yet been identified to proactively manage products & services for PSR customers

### Technology Readiness at Start

### Technology Readiness at End

## Geographical Area

This project will be delivered by Frazer Nash Consultancy and the Cadent IS & Safeguarding Teams

## Revenue Allowed for the RIIO Settlement

No revenue allowed for in the RIIO settlement.

## Indicative Total NIA Project Expenditure

Total cost: £128,250

Plus cost to Cadent for integration with existing/new systems & roll out.

## 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)

It is anticipated that costs will be avoided if this project is a success, however the primary benefit of this project is safety for customers in vulnerable situations. Potential to reduce time on site and ensure the right provisions & advice is left with the customer.

#### Please provide a calculation of the expected benefits the Solution

This project looks to support safety of customers & impacts our license agreement to treat customers fairly. There may be some cost saving regarding social return on investment (SROI) by ensuring safety of customers during interruptions as they would not be required to go to hospital or other care facilities.

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

Nearly 2 million of our customers are on the PSR database, this would also benefit those not yet on the register and those on the register within other licensee networks.

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

Each network would have to integrate into their existing systems costing around £50K - £100K per network. However simple roll out of standalone system developed during the project would only cost around £20K per network to roll out.

### 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

#### RIO-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

All networks have customers in similar situations and so the learning from this project will be of benefit for all. As the final software will look to be standalone & the ability to change the inputs and outputs, the other Network Licensees will be able to take the software and integrate into their own systems with limited effort.

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

There is no specific theme or aim that focuses on customers in vulnerable situations

- ☒ 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.

No project has looked to pull data from multiple sources and create an instant option to offer customers alternative provisions and services. NIA\_NGN\_231 developed a spreadsheet for assessing water provisions during interruptions however this project will take away the manual processing of information and offer the ability to add and take away provisions & services.

#### 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

Improvements in PSR data and not having a current solution to manage these customers when interruptions occur. Now have 25+ provisions and services available to offer to our customers, no means for the field engineers to determine the best option for each customer dependent on their needs.

#### 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**

Bespoke decision tree & algorithms needed to work with information available, not part of BAU as unproven ability to link these different data sources for this outcome.

### **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**

We have not found any available options that could solve the problem the networks face to assist vulnerable customers getting the right provisions during interruptions. The problem was shared through an EIC 'Call for innovation' to see what was available in the market place. This call was circulated to over 7,100 SME's as well as being published on social media streams. This project was constructed from the responses to that call for innovation. Using NIA funding helps us to collaborate widely for better problem solving and allows us to explore new avenues to find the correct solution to solve the issues faced. The use of NIA also means that all findings will be shared with other networks who are not collaborating directly within the project.

### **This project has been approved by a senior member of staff**

☒ Yes