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NIA Project Registration and PEA Document

Date of Submission

Nov 2023

Project Reference Number

NIA_CAD0098

Project Registration

Project Title

Additional Welfare Decision Tool Phase 2

Project Reference Number

NIA_CAD0098

Project Licensee(s)

Cadent

Project Start

October 2023

Project Duration

0 years and 11 months

Nominated Project Contact(s)

innovation@cadentgas.com

Project Budget

£501,333.00

Summary

An API (Application Programme Interface) within Cadent's PSR data software, the most up to date PSR data will be available every 24hrs, so that engineer or customer teams can ensure that the welfare provision offered at the property is the most suitable for the customer's needs.

Tool use will be expanded to accommodate other Cadent processes beyond emergency and repair, such as connections and replacement processes. This will open the tool to a wider audience, benefiting more customers and communities.

Redesigned to capture information and include functionality that is currently captured in the alternative heating and cooking monitoring form. This will remove the need to populate that form going forward. Therefore, reducing duplication, saving time, and benefiting the employees of Cadent.

Nominated Contact Email Address(es)

Innovation@cadentgas.com

Problem Being Solved

Cadent are committed to provide additional welfare items to 162,250 PSR and non-PSR registered customers during gas interruptions as part of its RII02 commitments. The AWDT delivered in Phase 1 is being used to support this process. There is a need to take the AWDT to the next level to enhance the process and the experience for both engineers and customers.

During gas interruptions, Cadent provides welfare provisions to customers based on the needs code(s) listed for that property within the PSR. In the current version of the tool, PSR data is manually collated, shared, and uploaded via a csv file in a time consuming and costly process. PSR data constantly changes and grows, therefore a reliable, robust solution is paramount to ensure engineers have the latest data available when attending a customer's property. The proposed solution is to facilitate an integration with Cadent core systems (ldox), enabling a data feed refresh of the PSR data every 24-hours in industry terms, as close as possible to a real-time

update.

There is also requirement to manage and automate the welfare product logistics processes to reduce engineer effort and increase their capacity. The tool will be developed to enable Cadent Network teams and third-party logistics providers to automatically receive and fulfil orders, track welfare products delivery progress, and ensure timely delivery to customers.

Method(s)

Phase 2 seeks to build upon the app developed in Phase 1, a URL based system for identifying welfare items for distribution via postcode/needs code to customers in vulnerable situations. Welfare items distributed will be logged and maintained, evidenced via internal scorecards. To sustain the otherwise unproven app and distribution process, regulatory and core systems will be integrated also, along with other tertiary systems already utilised by the networks.

Data Quality Statement

The project will ensure that necessary data is of sufficient quality and readily available to meet the objectives of the project. This will be achieved by capturing output that has derived from research undertaken with charity organisations.

Measurement Quality Statement

The project will develop a working prototype and the data/performance will be communicated and reviewed with the wider project team regularly to ensure transparency and consistency.

Scope

Live PSR Data – The AWDT will have the most up to date version of the PSR data (from the last 24hrs) via API.

Heating and cooking monitoring form functionality – build features of this existing form into the AWDT to remove the need for it (e.g., gifted/loaned/declined, e -signature, item make, model and serial number) in-turn removing duplication of effort for the engineer, whilst improving accuracy of reporting too

Application Access – The AWDT is currently accessed by Cadent AD (Active Directory) accounts via a single sign on and third parties with specific roles and access rights to be provided.

AWDT Logistics Portal – The AWDT will capture the following additional data fields in the logistics portal:

Process (including incident <250 or >250 off gas)

Network

Property Address

Preferred delivery contact number

Work order/unique identifier

Outage period

Field operative/requestor name

Field operative/requestor phone number

Items marked as 'provided to customer.'

Items marked as 'ordered.'

E-signature box or customer declined to provide signature.

AWDT 'Complete Job' date and timestamp

Delivery supplier

AWDT Logistics portal API – The AWDT logistics portal will have an API connection with third party supplier Simply Thank You (STY.com) to their ordering system, to send orders directly from the AWDT for them to be fulfilled, removing the need for engineers to

navigate to a third-party website and place orders.

Dropdown for Cadent Processes – The AWDT will identify which Cadent process is using the application by selecting from a dropdown menu.

Notification Banner – The AWDT will have the ability to add a notification banner at the top if needed to brief users if there is an application issue and or any instructions.

Data Extract – XML file output can be downloaded by safeguarding team roles for all data fields to a cloud-based repository to support regulatory reporting.

Improved user experience – lessons learned from Phase 1 engineer engagement has resulted in a number of User Interface modifications to improve the experience.

Objective(s)

- PSR data fed to AWDT automatically updated every 24hrs (no manual uploads).
- Products can be ordered by the engineer for delivery directly from third parties using the AWDT.
- Safeguarding and customer teams can actively track delivery of products in a logistics portal.
- Ability for a wide range of roles across Cadent customer teams and external partners, such as the British Red Cross to access the application and respond to a customer's needs in an incident.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

This project has been input into the Consumer Vulnerability Impact Assessment Tool and there are no negative impacts on consumers in vulnerable situations therefore there is no need to take mitigation measures.

Success Criteria

- The AWDT takes a direct, reliable daily feed from Cadent ESRI (Ilox) system via API for PSR data.
- Users can record the Cadent process that applies in a dropdown and the work order number entered manually.
- The AWDT allows the user to confirm the action taken for each product. The selection is driven by the back end of the tool.
- Preferred delivery options set up in the safeguarding portal - products portal dictates what the buttons say. I.e., carry on van shows a different button option such as 'provided to customer' vs delivery has 'mark as ordered'.
- The AWDT specifies the appropriate action for each product based on safeguarding team decisions but can be edited by the user.
- The logistics portal will allow tracking of welfare product provision for customer teams and 3rd parties by presenting data in an easy to read and navigate view.
- Customers can provide signatures using the engineer/user device.
- The logistics portal will present clear, easy to read data and update in real time so Safeguarding and Customer teams can track welfare provision and be exportable to excel.
- The logistics portal will allow for data fields to be updated by those with access provided to provide a complete record of whether the delivery was successful and to be exportable to excel.
- AWDT will send all relevant details of any products for next day delivery to simply thank you 3rd party supplier (name, address, product, quantity etc)
- Users can record the information in the form of a dropdown or manual entry for compliance with engineering policy.
- Several Cadent roles and access types are created to ensure the widening of the use of the tool.
- AWDT must be resilient to growing numbers of users and increased functionality.

- Users can record this key part of the process for engineering and safety compliance.
- AWDT Data is available for export so that it can be analysed and submitted as part of regulatory reporting.
- This is utilised for next day delivery items process.
- Remind users that they must fulfil licence conditions by offering a minimum set of products.
- Adherence to GDPR compliance throughout the development sprints, and Cadent Project Manager to consult with Cadent DPIA lead as appropriate.
- As there is a field force of 3000 engineers, the tool will be able to communicate messages, promotions, reminders at the top of the screen. The safeguarding team will need to be able to control this.
- Modify the AWDT from phase 1 to ensure it is identifiable and easy to read for Cadent engineers on their handheld devices.
- Users could record a PSR conversation if they added additional needs codes to the AWDT.
- AWDT will have functionality to enter a customer email address and send a standard set of operating instructions to that email address.
- AWDT will have functionality to attach a photo of a manual form and be accessible to view in the dashboard.
- AWDT will have the functionality to record in these fields as either free text or dropdown as requested by Cadent.
- ADWT will be easy to view and navigate for users.

Project Partners and External Funding

The project partner for this project is Frazer-Nash Consultancy Limited and the project will be wholly funded via NIA.

Potential for New Learning

Will provide GDN's the necessary steps and wider blueprint for implementing a similar PSR driven beneficiary welfare distribution and deliver method.

Scale of Project

The Project will be delivered as detailed, 9 agile sprints over 11 months. If the scale of the project is impacted at any one sprint, then it will be agreed in principle prior to passing.

Technology Readiness at Start

TRL4 Bench Scale Research

Technology Readiness at End

TRL7 Inactive Commissioning

Geographical Area

Cadent's 5 networks applicable. (EA, EM, NL, NW, WM).

Revenue Allowed for the RIIO Settlement

N/A

Indicative Total NIA Project Expenditure

Total external costs: £376,000.00

Total internal costs: £125,333.33

Total NIA indicative expenditure: £501,333.33

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:

The solution will help to facilitate, identify and distribute welfare items to customer in vulnerable situations based off the unique needs codes associated with the property, as identified by the priority services register (PSR). With immediate items being able to be distributed directly from the engineer's transport, other more specialist items will be able to be distributed via next day delivery through key project partners.

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

The aim of the project is not necessarily to see financial benefits but to improve the experience of vulnerable customers and potentially the wider public when they are in an off-gas situation. In addition, the project could provide the below benefits:

- By establishing an API (Application Programme Interface) with Cadent's PSR data software, the most up to date PSR data supplied for that property will be available every 24hrs, so that the engineer or customer team can ensure that the welfare provision offered at the property is the most suitable for the customer's needs.
- The use of the tool will be expanded to accommodate other Cadent processes beyond emergency and repair, such as connections and replacement processes. This will open the tool to a wider audience of users, benefiting more customers and communities.
- The tool will be redesigned to capture information and include functionality that is currently captured in the alternative heating and cooking monitoring form. This will remove the need to populate that form going forward. Therefore, reducing duplication, saving time, and benefiting the employees of Cadent.
- The e-signature functionality will enable Cadent to evidence provision of items to the customer by the engineer or by logistics 3rd parties. It will allow Cadent to track and monitor performance.
- The tool will send a daily file to third party suppliers of next day products via suitable API, which will remove the need for engineers to navigate from the AWDT to a separate website to make these orders (which is the as-is process), therefore benefiting the employees of Cadent.
- The tool will allow secure access for registered third parties such as the British Red Cross to enable support in the event of an incident, which will benefit the customers and the community.

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

Potentials for rollout to be nationwide, through availability for all GDN's. Whilst the project is looking to benefit Customers who are in Vulnerable Situations, further phases would need to be delivered for this to be achieved.

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

Roll out costs are not yet defined within the project due to the project starting at TRL4. These will be discussed and monitored throughout the project's lifecycle.

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 learnings from this project could be adopted by other Network licenses.

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

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.

A thorough check has been completed and no similar projects have been identified. All networks were informed of the project via a project notification form on huddle and no issues of duplication have arisen.

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

It's been identified that the PSR data provided could be better utilised to serve customers who find themselves in vulnerable situations. The PSR is currently isolated data, this app seeks to establish a synergy between the data we have available of a customer's property via needs codes, and the corresponding items of welfare we can offer, either through direct handover of matrix driven identified high use items or priority next day delivery of specialist items. This method of additional welfare distribution has not been identified previously across all GDNs and thus makes this project innovative.

Relevant Foreground IPR

The project and the resultant outcomes/deliverables will conform to the default treatment of IPR as set out under the agreed NIA Governance (where the default requirements address two types of IPR: Background IPR and Foreground IPR).

Data Access Details

Any consumer data gathered throughout this project will be anonymised and will be compliant with General Data Protection Regulations (GDPR) and the UK Data Protection Act. Any compliant data can be made available for review upon request.

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

The scale of the issues at hand is unknown until a prototype is produced/deployed, and therefore there is a high level of uncertainty associated with the project which would be beyond the network licensees' risk appetites and is not provided for, under the funding provided under the current RIIIO settlement.

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

The high-level risk associated with the low TRL project is beyond the current risk appetites of networks. NIA will allow us to complete this project to better inform future decisions and opportunities.

This project has been approved by a senior member of staff

Yes