NIA Project Registration and PEA Document

Date of Submission

Jul 2024

Project Reference Number

NIA_CAD0107

Project Registration

Project Title

Strategic Education Roadmap

Project Reference Number

NIA_CAD0107

Project Licensee(s)

Cadent

Project Start

July 2024

Project Duration

0 years and 4 months

Nominated Project Contact(s)

Mumtaz Patel

Project Budget

£126,496.13

Summary

To create the first, GT led, strategic roadmap for a "1 stop shop" that brings future energy, including hydrogen awareness and education into schools, colleges, universities, and other education providers and will define a simple, clear, creative communication of the offerings and attract engagement from stakeholders.

a.   respond to requests from schools and colleges on hydrogen and green energy,

b.   Demonstrates the roles of future gaseous fuels in achieving net zero

c.   Compliments other green energy education initiatives

We believe this roadmap is the most cost effective way to develop a consistent and accessible approach in a way that will increase engagement with these fuels, attract people into net zero economy, and grow advocacy for green gaseous fuels.

Nominated Contact Email Address(es)

Innovation@cadentgas.com

Problem Being Solved

As excitement around net zero and decarbonisation grows, the electricity industry appears to have a well-considered and cohesive approach to introducing the challenges and opportunities associated with the growth of electrical solutions to heat and transport across the spectrum of education providers.

As of February 2024, there doesn't appear to be an equivalent for future gaseous energy solutions, such as hydrogen or biomethane, and their role in a net zero future. Whilst there has been some work done in pockets by the GT's and other industry groups, it would be beneficial to the industry to develop a consistent and co-ordinated approach to the development of content and messages for

education providers and their pupils/students/researchers.

This project sets out to create the first, GT led, strategic roadmap for a "1 stop shop" that brings future energy, including hydrogen and biomethane awareness and education into schools, colleges, universities, and other education providers and will define a simple, clear, creative communication of the offerings and attract engagement from stakeholders.

a.   respond to requests from schools and colleges to brief pupils/students on hydrogen and green energy,

b.   Demonstrates the roles of future gaseous fuels in achieving net zero

c.   Compliments other green energy education initiatives

We believe this roadmap to be the most cost effective way to develop a consistent, and accessible approach that will improve the credibility of these gaseous future fuels, the reputation of the industry in a way that will increase engagement with these fuels, attract people into net zero economy, and grow advocacy for green gaseous fuels.

Method(s)

a.   This desktop project will design a roadmap which recommends what content should be developed and how it should be delivered specific to each customer/audience type. The material will be inclusive, accessible, and suitable across the neurodiversity spectrum.

b.   The research will be in 4 stages:

1.   Understand the current landscape with regard to future gaseous fuels & green energy awareness in education settings, and current perspectives and existing initiatives to address the net zero skills gap

2.   Establish our key stakeholder groups

a.   E.g. schools, colleges, STEM and Green Energy educational bodies (STEM Foundation, in2science etc)

b.   HUK working groups on Hydrogen Education and HydEx

3.   Determine a role for GT's in developing and deploying their content. (i.e. develop new or sponsor existing)

4.   Make recommendations for content and delivery methods appropriate for a) and b) above to maximise engagement, excitement, advocacy and retention.

a.   Consider emerging technologies such as VR/AR/IR etc.

Next Steps and future phases:

Recommendations from this project will be prioritised and delivered via successor projects, which will be separately funded.

Please see the document attached for Graph / Charts

Scope

This desktop project will design a roadmap to address 2 themes:

a)   General green energy, hydrogen, sustainability and net zero for presentations to   schools at KS1 – 4

b)   Advocacy for STEM and other sustainability subjects, with the intention of growing the number of students self-selecting into these courses at A Level and beyond.

All educational establishments within the UK are within scope.

The project is an enabler, helping to understand the current level of awareness and understanding of the role of hydrogen in helping to meet the UK's net zero target (2050) and determining where we need individuals and educational establishments to be. Then setting out a roadmap of activities to help bridge the gap. The fragmented approach to addressing this gap to date, has not helped to benefit customers. This joined up strategic approach will optimise the use of NIA to better understand the gap in knowledge and understanding and how we as the gas distribution and transmission businesses can help address it.

Objective(s)

Create a GT led, strategic roadmap for a "1 stop shop" that brings future energy, including hydrogen and biomethane awareness and education into schools, colleges, universities, and other education providers and will define a simple, clear, creative communication of the offerings and attract engagement from stakeholders.

We believe this roadmap will be the most cost effective way to develop a consistent, and accessible approach that will improve the credibility of these gaseous future fuels, the reputation of the industry in a way that will increase engagement with these fuels, attract people into net zero economy, and grow advocacy for green gaseous fuels.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

N/A

Success Criteria

This project can be considered a success if we achieve the following 4 milestones:

1.   A roadmap detailing the rollout of a strategic education strategy, which includes a series of recommendations for content and delivery methods appropriate to the points above to maximise engagement, excitement, advocacy and retention.

2.   Gain a good understanding of the current landscape with regard to future gaseous fuels & green energy awareness in education settings, including initiatives being undertaken by other industry bodies.

3.   Establish our key stakeholder groups, both as contributors to, and recipients of, the outcomes of this project

4.   A clear role established for GT's in developing, deploying and promoting net zero green gas content to education establishments

Project Partners and External Funding

Cadent, SGN, WWU, NGN, NGT, National Gas and Skewb. The project will wholly funded via NIA.

Potential for New Learning

The primary purpose of the project is to produce and communicate a '1 stop shop' Strategic Education Roadmap with implementation plans, that can be utilised by all the network, the wider industry and education providers. These outputs will also be subject to wider exploration into further content to support the roadmap.

Scale of Project

The project is UK wide encompassing both gas distribution & National Gas and covers all stages of education. The project will be a combination of desktop study, and stakeholder engagement.

Technology Readiness at Start

TRL2 Invention and Research

Technology Readiness at End

TRL3 Proof of Concept

Geographical Area

The roadmap should be relevant to all education establishments in the UK

Revenue Allowed for the RIIO Settlement

N/A

Indicative Total NIA Project Expenditure

External Cost: Cadent £ 42,222.23 SGN £ 21,111.11 WWU £ 10,555.55 NGN £ 10,555.55 National Gas £ 10,555.55 Internal Cost: Cadent £ 14,074.08 SGN £ 7,037.04 NGN £ 3,518.52 WWU £ 3,348.00 National Gas £ 3,518.52

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:

This project will allow hydrogen and future energy knowledge and learning for the future generate to understand the energy transition which is critical to understanding Net Zero thus playing a part in the wider net-zero ambitions of the country.

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

This is for Development or Demonstration Projects, not required for Research Projects. It should be (Base Cost – Method Cost, Against Agreed Baseline) and include a description of the recipients of the benefits.

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

The project covers all across GB and does not need to scaled.

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 learning can be used by any network to educate on the energy transition and improve knowledge in the area.

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

Please demonstrate how the learning from the project can be successfully disseminated to Network Licensees and other interested parties.

N/A

Please describe how many potential constraints or costs caused, or resulting from the imposed IPR arrangements.<

N/A

Please justify why the proposed IPR arrangements provide value for money for customers.

N/A

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.

The suitability of existing education programmes cannot be repurposed as they do not cover across the spectrum or Consider emerging technologies such as Virtual reality and Augmented reality.

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

As excitement around net zero and decarbonisation grows, the electricity industry appears to have a well-considered and cohesive approach to introducing the challenges and opportunities associated with the growth of electrical solutions to heat and transport

across the spectrum of education providers. There isn't an equivalent for future gaseous energy solutions, such as hydrogen other green energy and their role in a net zero future. Whilst there has been some work done in pockets by the GT's and other industry groups, it would be beneficial to the industry to develop an innovate, consistent and co-ordinated approach to the development of content and messages for education providers and their pupils/students/researchers.

Relevant Foreground IPR

All relevant foreground IP created as part of the project will follow NIA governance.

Data Access Details

Current expectation is that all data used in this project will be sourced from published documentation and stakeholder input. All data will be will be available upon request

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

This project cannot be considered as BAU due to their first of a kind nature and risks which go beyond BAU.

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

This project has inherent risks due to its first of a kind nature so it is right it should be supported using NIA funding. This project looks to create a roadmap across the spectrum of education considerations. We believe this roadmap to be the most cost effective way to develop a consistent, and accessible approach that will improve the credibility of these gaseous future fuels, the reputation of the industry in a way that will increase engagement with these fuels and grow advocacy.

This project has been approved by a senior member of staff

☑ Yes