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

Jul 2015

Project Reference Number

NIA_WWU_025

Project Registration

Project Title

Project Futurewave – Phase 2 (Digital Prototype)

Project Reference Number

NIA_WWU_025

Project Licensee(s)

Wales & West Utilities

Project Start

June 2015

Project Duration

0 years and 7 months

Nominated Project Contact(s)

WWU – Steven Edwards – lead GDN, SGN – Stephen Tomlinson, NGN – Dan Sadler, NGG – Tony Nixon, SSE – Martyn Lyster, SPEN – Geoff Murphy

Project Budget

£961,978.00

Summary

Define

The Define stage is focused on gaining definition and alignment on the core project parameters, objectives and logistics. The project will start with a one-day working session with the core project team; supplemented by ongoing conversations, document/data review, and necessary stakeholder consultations.

Informed by the kick-off meeting, available sample scenarios and associated data sets, the Define stage begins with developing, defining and articulating the potential features and components of the Platform and its underlying business.

The Define stage will culminate with a one-day prototype co-design workshop where the following areas will be initially defined using the above mentioned work streams as stimulus.

Develop

Following completion of the Define stage and the prototype design workshop, we will commence an 8-week iterative design and development process with weekly live demos of the prototype as it evolves. In parallel to the agile development of the digital prototype, Fahrenheit 212 will develop the roadmap and investment case for the Platform.

Deliver

Following completion of agile development, Fahrenheit 212 will: oversee user testing of the prototype; organize a collaborative industry session; and deliver the roadmap and investment case for Phase 03.

Preceding Projects

NIA_NGN_090 - Project Futurewave

Nominated Contact Email Address(es)

innovation@wwutilities.co.uk

Problem Being Solved

Energy customers in the UK have limited options for how they generate, access and consume energy, as well as the price they pay. There is also very little scope to flex supply across the energy distribution networks at a local level (i.e. switch off parts of the networks) which in turn makes it difficult to reduce generation capacity and make significant carbon reductions at a national level. Moreover, the cost of energy and access to different sources in rural areas is adding to the issue of fuel poverty. Additionally, concerns around the Energy Trilemma, are relatively unsophisticated when it comes to understanding the energy market – and the potential of gas within it. Any model to resolve these issues has to help inform consumers about the value of gas and help place it on the social agenda.

Phase 01 of Project Futurewave was a feasibility study leading to the development of a collaborative approach for the Gas Networks to collectively identify, design and develop future pilot projects that deliver valuable proof of concepts for the industry.

This led to the concept of a digital platform to facilitate a collaborative approach.

Background to the digital platform:

With the heightened pressures on the energy industry to demonstrate value to its customers, there is a renewed focus on satisfying their needs. GDN's cannot meet the challenge alone. By understanding their pain points and their challenges, the energy industry is aligning to seek opportunities to redeploy its assets and resources to create dynamic solutions for customers. Today's UK energy sector is made up of disconnected players and networks, who actually need one another, leaving an unaddressed gap – between customer needs and their solutions, between technologies and markets, between capital and projects. The digital platform activates the creation, design and development of new customer centric energy initiatives with a new level of efficiency and speed. The platform is designed to close three unaddressed gaps in the energy market and give stakeholders a new way to engage.

Phase 2 seeks to develop and validate a prototype of the digital platform to inform the decision to continue with the Development, phase 3, of the project.

Method(s)

This Phase 2 of work is focused around conceptualising, designing and developing the digital Platform and each one of its three digital tools into a fully dimensioned product and business proposition that are ready for sharing with key stakeholders and end users.

It will be focused on creating confidence in the solution by creating a digital prototype to test the experience and tools, supported by a commercial rationale and investment case for the platform including financial, strategic and operational requirements, risk assessment, and organisational design.

Scope

Define

The Define stage is focused on gaining definition and alignment on the core project parameters, objectives and logistics. The project will start with a one-day working session with the core project team; supplemented by ongoing conversations, document/data review, and necessary stakeholder consultations.

Informed by the kick-off meeting, available sample scenarios and associated data sets, the Define stage begins with developing, defining and articulating the potential features and components of the Platform and its underlying business.

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Fahrenheit 212 will develop the roadmap and investment case for the Platform.

Deliver

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Objective(s)

To define the parameters of the digital platform, develop a digital prototype (with supporting commercial rationale) and test it with users across the 3 journeys (source it, build it, fund it) to assess its suitability for moving on to the next phase of the project.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

n/a

Success Criteria

Success for this Phase 2 is to allow the Energy Innovation Centre and the Gas Distribution Networks to make the decision as to whether to move forward with Phase 03 of the project. This will be achieved through “proof of concept” via a user tested minimum viable product prototype that provides confidence that:

- There is demand for this type of collaboration platform across all user-types identified in the first stage of this phase
- The prototype demonstrates that data can be collected and harnessed in meaningful and productive ways
- Qualitative findings from end-user testing demonstrates that users find real value and ease-of-use in the platform
- The investment case demonstrates that the platform can be self-sustaining, through funding / revenue models

There is agreement that the platform can be delivered by the EIC efficiently and effectively

Project Partners and External Funding

n/a

Potential for New Learning

n/a

Scale of Project

Fahrenheit 212, working in close collaboration with Radical, a UK based digital agency will develop a high fidelity, rich and fully branded data driven prototype that presents the core features and functions of the digital platform.

If this project were smaller, we may be able to test the user experience but would not have any way to demonstrate that we will receive meaningful data as a result of using the platform. This scale of project allows us to make a robust decision about the feasibility of the platform from a product, commercial and end user point of view.

Technology Readiness at Start

TRL3 Proof of Concept

Technology Readiness at End

TRL5 Pilot Scale

Geographical Area

GB only

Revenue Allowed for the RIIO Settlement

None

Indicative Total NIA Project Expenditure

WWU Costs

£**80,163(£72,147 claimable NIA expenditure) total Project expenditure (Total external £60,183)**

NGN Costs

£80,163 (£72,147 claimable NIA expenditure) total Project expenditure (Total external £60,183)

SGN Costs

£ 160,330 (£144,297 claimable NIA expenditure) total Project expenditure (Total external £120,368)

NGGD Costs£ 320,659 (£288,593 claimable NIA expenditure) total Project expenditure (Total external £240,735)

SPEN Costs

£160,330 (£144,297 claimable NIA expenditure) total project expenditure (Total external £120,368)

SSE costs

£160,330 (£144,297 claimable NIA expenditure) total project expenditure (Total external £120,368)

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)

The Cost Benefit Analysis is not required under NIA governance due to the low TRL, however the financial benefit case will be defined as part of this phase of the project.

Please provide a calculation of the expected benefits the Solution

This is a research project

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

All networks are collaborating on this project and are committed to delivering a better service to their customers.

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

These costs would be available later in the project owing to the current low TRL level.

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

All Network Licensees will be able to use the learning generated from this project to understand how a digital platform can help end users, SMEs & Networks, and Funding parties engage with projects, what the specific benefits are for those users and how those needs can be better met in the future by networks.

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

All GDN's recognise the significant challenges that the wider energy industry in the UK will face in the long term. This project plays significant role in ensuring our gas distribution networks can fully play a full part in the move to a low carbon economy.
It also maintains our focus on the continuing challenging and improving overall levels of service, meeting our stakeholders' expectations and delivering long term improvements

☑ 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