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NIA Project Registration and PEA Document

Date of Submission

Feb 2016

Project Reference Number

NIA_NGGD0072

Project Registration

Project Title

Project Futurewave - Phase 3 (Pilot)

Project Reference Number

NIA_NGGD0072

Project Licensee(s)

Cadent

Project Start

February 2016

Project Duration

1 year and 1 month

Nominated Project Contact(s)

WWU – Steven Edwards, NGN – Andrew Irwin, NGG – Tony Nixon – Lead network, SEPD/SHEPD – Martin Lyster, David MacLeman, SPEN – Geoff Murphy

Project Budget

£1,709,678.00

Summary

The scope of the project will include the following:

1. Develop a brand that engages customers and instils trust in the product and platform partners.
2. Identify cost effective routes to user engagement, retention and referral.
3. Develop a fully responsive digital platform that drives consumers from discovery to action, by optimising 'Source it', 'Build it' and 'Fund it' functionality to achieve the desired behaviours.
4. Engage with individuals and community groups to understand their needs in relation to the platform, feedback on the product development, and to take part in live trials.
5. Trial the platform with individuals and community groups to optimise the product being developed and the assumptions behind the business model.
6. Update the Business Plan, including:
 - Revised assumptions based on data observed in live trials.
 - Refined roadmap to commercialisation and national growth.
 - Defined business and governance structure.

Nominated Contact Email Address(es)

Innovation@cadentgas.com

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. From a customer's point of view the energy market is fragmented and "too confusing". There are different sources of funding, installations and advice, but no central point that makes it easy for a customer to take action. In addition, people are increasingly cautious due to a history of bad experiences, shifting government policy and high prices.

This lack of trust, combined with a difficult-to-navigate category, creates high barriers to action.

Today the onus is always on the individual to research, understand, select and act. This results in inertia.

Moreover, the cost of energy and access to different sources in rural areas is adding to the issue of fuel poverty.

Any model to resolve these issues has to engage customers in their energy, help inform them about better options available to them, and inspire them to take action.

Phase 01 of Project Futurewave was a feasibility study leading to the development of a collaborative approach for the 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. Networks 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 02 of Project saw the development of a prototype digital platform, business case and user validation. This has given the partner networks confidence to progress to Phase 03 – The pilot stage.

Phase 03 seeks to develop and pilot the digital platform with UK communities representative of our core target audience. Over the course of this phase customers in select communities will be able to engage with the platform and start activating otherwise inaccessible energy projects either in communities or as individuals.

Method(s)

This Phase 03 of work is focused on piloting the platform to refine the product, the business model and the user engagement strategy, as well as to build the basis for the platform to achieve a successful commercial launch.

Taking the existing investment case for the platform (including commercial, strategic and operational requirements, risks assessment, and organisational design), we will test the defined hypotheses through lean and agile methods.

This approach will ensure constant validation and measurement of any business assumptions and build a "continuous delivery" ethic, maximising productivity and velocity of the delivery team whilst ensuring the focus is in the right areas.

As with the previous phase the project will follow a Define, Develop and Deliver method however unlike the previous phase, these phases will gradually be condensed into fortnightly design and development "sprints" of components of the Futurewave platform.

Taking this approach ensures the delivery team can be focused on specific user and business requirements and ensure the design, code and underlying architecture is always being tested to ensure its robustness and maximum quality.

This method also allows for the team to adapt, change and revisit any requirement changes (e.g. market changes, new legislation or new user requirements) at any point in the delivery cycle.

We are proposing a staged approach to the project;

Stage 1 – Defining the business, user and technical requirements for trial

- Define and gain alignment on the core business goals, dependencies, architecture and infrastructure.

- Develop, define and articulate the basic technical architecture for the launch of the minimal viable product.
- Define product trials, and communities to engage in trials.

Stage 2 – Developing the Minimum viable product and user engagement

- On definition of trial communities we will start to sign up 'Build it' & 'Source it' users to the platform for stage 3.
- Build the correct framework for all future design and development phases.
- Based on the above requirements, develop the minimum viable product for the first trial.
- As part of the above, we will co-ordinate regular user testing sessions with key stakeholders to ensure that as progress is being made each component is being thoroughly tested with real end users. These sessions will also be used to help validate relevant components of the business model.

Stage 3 – Product trials and business model evolution

- We will launch each component defined in stage 1 into a live community to run tests specifically designed to validate our business model and assumptions.
- As the first component goes live the team will measure its success against the defined metrics and tweak the live component to improve the product based on user activity and feedback.
- As we measure each live component and optimise its delivery we will update the business model and roadmap for delivery.
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Scope

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Objective(s)

1. Define and build the minimum viable product required for each trial.
2. Validate and determine the viability of the commercial model through live data observed in trials including;
 - What penetration are we likely to achieve in year one for 'Source It' and 'Build It' users?
 - What rate of completion rate we are likely to achieve?
 - What the average project value is?
 - What level of 'Fund it' support is required
3. Define user acquisition tactics for 'Build it' and 'Source it' users.
4. Develop the final product ready for commercial launch.
5. Outline the commercial launch plan.

Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)

n/a

Success Criteria

Success for this Phase 03 is to test and prove or improve upon the product, user acquisition and commercial model hypotheses so we can define the best route to commercialisation.

We will have validated or improved upon;

- The assumptions behind the commercial model for the pilot year, which include;
- 1% of off-gas homeowners in the defined target community use the platform.
- 10% of these users will make contact with 'Build It' suppliers in their area with the desire to complete a home energy improvement through the platform.
- The average value of projects considered is £2,425.

In order to achieve this we will have defined;

- Who our users are and why they use the platform.
- What the best 'marketing / referral' channels are.
- Which platform tools are critical to improve completion rates through the platform for customers and installers.
- The best ways to build community engagement and retain users.

Project Partners and External Funding

n/a

Potential for New Learning

n/a

Scale of Project

If this project were smaller, we may be able to test some components of the platform but will not be able to test the whole product live in market, understand where the real value lies for customers, and we would not be in a position to run Futurewave as a self-sufficient business. Further funding would be required to proceed to commercialisation.

Though we could build and test the platform over a longer time period, it would increase the likelihood of failure as the product we build could lose traction with customers. The test and learn approach we are proposing speeds up our journey to market, as well as ensuring that each component we are building delivers against its purpose.

Technology Readiness at Start

TRL5 Pilot Scale

Technology Readiness at End

TRL8 Active Commissioning

Geographical Area

GB only

Revenue Allowed for the RIIO Settlement

None

Indicative Total NIA Project Expenditure

WWU Costs

£178,488 total project expenditure (£160,639 claimable NIA expenditure) (Total external £134,000)

NGN Costs

£580,752 total project expenditure (£522,677 claimable NIA expenditure) (Total external £436,000)

NGGD Costs

£539,460 total project expenditure (£485,514 claimable NIA expenditure) (Total external £405,000)

SPEN Costs

£133,200 total project expenditure (£119,880 claimable NIA expenditure) (Total external £100,000)

SEPD/SHEPD costs

£277,778 total project expenditure (£250,000 claimable NIA expenditure) (Total external £250,000)

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)

According to the Energy Savings Trust the average home could save £250 / year by installing energy efficiency measures. Post the pilot we expect to expand nationally, with a minimum of 30,420 energy customers completing projects across the UK through the platform. This would indicate a saving of up to £7.61m over a three year period.

Please provide a calculation of the expected benefits the Solution

Not applicable

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

Over the course of the next four years we expect to expand nationally, reaching a minimum of 67,000 energy customers across the UK.

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

Our current base case scenario states that we will spend £1.03m before the platform becomes a self-sustaining business. The assumptions behind these costs will be tested as part of Phase 03.

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

n/a

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 networks recognise the significant challenges that the wider energy industry in the UK will face in the long term. This project plays a significant role in ensuring our 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