NIA Project Registration and PEA Document

Notes on Completion: Please refer to the **NIA Governance Document** to assist in the completion of this form. Please use the default font (Calibri font size 10) in your submission. Please ensure all content is contained within the boundaries of the text areas. The full-completed submission should not exceed 6 pages in total.

Project Registration

Project Title

Carbon Tracing

Project Reference

NIA_WPD_022

Funding Licensee(s)

Western Power Distribution (West Midlands)

Project Start Date

01/08/2016

Project Duration

c. 19 months

Nominated Project Contact(s)

James Bennett

Project Budget

£327K

Problem(s)

Giving visibility of generation mix to customers

Method(s)

There is currently no mechanism for telling a customer how the generation in their area is made. We feel that by providing a mechanism for them to find out that this will act as:

a.   A catalyst for more information about generation
b.   A potential new avenue into the community and those customers with an interest of where the energy they use comes from.

In addition we also feel that this project could also help with the engagement and use of Demand Side Management- allowing customers to see the impact of using their LCTs and possibly shifting their load.

Scope

There will be thorough investigation of the numerous candidate data sources that will be required in order to make the app and website work to deliver an accurate picture of the generation breakdown and associated information. Some of this data is sourced internally (true load, solar response profiles, substation details, attached local generation) while weather, geographic information, almanac information and national

generation mix are all externally to be sourced – some in real-time via live data feed/API.

The app and website will be rolled out across all of WPD's areas. In order to obtain access to interested customers we will be partnering with the Carbon Trust. They will be actively working with WPD and the customers to manage interest groups and trials with customers to monitor uptake with us throughout the project.

The Carbon Trust carried out their research on the project as part of their scope of work. This concluded that an agile approach is more appropriate to the development of an app and the website. In order to achieve this it is necessary to reshape the originally foreseen delivery schedule and carry out the activities over a longer timescale. The project objectives remain exactly the same, although the approach has been adjusted.

Because the approach Is changing to an agile delivery method over the course of a longer duration the budget is increasing to £327k. This includes the additional digital marketing campaign costs.

Objective(s)

The project will address a perception that customers are increasingly interested in how their energy is made up. We continue to see the adoption of Solar and Wind generation and as such being able to tell a customer what the mix is like at any point in time is deemed valuable. Having created an app and website we will then test with local groups before a cross WPD implementation enabling customers to see their generation mix and allow for their own generation as well.

Once this is available to all, we will then measure interest across the WPD area.

Success Criteria

Success will be measured within the trials and then monitored once live.
We will also be monitoring how we can make the calculation more accurate over time.

Technology Readiness Level at Start

2

Technology Readiness Level at Completion

3

Project Partners and External Funding

Not applicable- suppliers will be procured to build the app and website.
Carbon Trust will be providing the "validation" aspects of the trials for us.

Potential for New Learning

Parties will learn the following:

- The detailed design of the app and website
- The calculation of the energy mix and any options that were considered
- The results of the trials with customers
- Specific customer feedback
- how the calculation of generation mix can be achieved to a level that is credible with the data available
- the level of interest in such visibility of data and
- how best to present this information to end customers through end user trials.

Scale of Project

We will trial this with customers first and if possible across more than one geographic area. This is because we believe that we should test the premise of the project fully first to see what the level of interest is in this deliverable. Failure to do this could mean that we miss an important validation of the project. It is though our intention that this should be as a minimum across all WPD areas.

Geographical Area

We intend to trial in as many areas as possible but as mentioned above, we want this to be across all areas from the outset.

Revenue Allowed for in the RIIO Settlement

N/A

Indicative Total NIA Project Expenditure

£294,641

Project Eligibility Assessment

Specific Requirements 1

1a. An 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 systems and 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	☐

Specific Requirements 2

2a. Has the Potential to Develop Learning That Can be Applied by all Relevant Network Licensees ☒

Please answer one of the following:

i) Please explain how the learning that will be generated could be used by relevant Network Licenses.

Parties will be able to take the learning and develop their own app/website for their geographic area. In addition they will be provided with the detailed design of the app and website.

Parties will also be able to see the specific customer feedback from the trials.

ii) Please describe what specific challenge identified in the Network Licensee's innovation strategy that is being addressed by the Project.

Is the default IPR position being applied?

Yes	☒
No	☐

If no, please answer i, ii, iii before continuing:

i) Demonstrate how the learning from the Project can be successfully disseminated to Network Licensees and other interested parties

ii) Describe how any potential constraints or costs caused, or resulting from, the imposed IPR arrangements

N/A

iii) Justify why the proposed IPR arrangements provide value for money for customers

N/A

2b. Has the Potential to Deliver Net Financial Benefits to Customers ☒

Please provide an estimate of the saving if the Problem is solved.

There is no direct monetary saving to customers by providing this solution. The benefit is expected to derive from customers being more aware of where generation comes from as a function of time of day/year with this capability therefore providing them with information to allow informed behavioral adjustments they may then make. This is all about making informed choices and enablement.

Please provide a calculation of the expected financial benefits of a Development or Demonstration Project (not required for Research Projects). (Base Cost – Method Cost, Against Agreed Baseline).

N/A

Please provide an estimate of how replicable the Method is across GB in terms of the number of sites, the sort of site the Method could be applied to, or the percentage of the Network Licensees system where it could be rolled-out.

All network licensees could use this application if it is proven to be successful. Costs are relatively small as it is about the development of an app/website. Conceivably many customers across all geographies could use the Method to inform their energy usage or perhaps invest in LCTs on the back of the information provided.

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

This could be rolled out across all GB and this project would mean that other DNO's would ostensibly be saved the costs of developing the underlying calculation.

2c. Does Not Lead to Unnecessary Duplication ☒

Please demonstrate below that no unnecessary duplication will occur as a result of the Project.

This has not been trialed before and the specification will be made available as part of dissemination.

If applicable, justify why you are undertaking a Project similar to those being carried out by any other Network Licensees.

N/A