

## NIA Project Registration and PEA Document

### Date of Submission

Jan 2013

### Project Reference

WPDT1008

## Project Registration

### Project Title

Community Energy Action

### Project Reference

WPDT1008

### Project Licensee(s)

Western Power Distribution

### Project Start

October 2012

### Project Duration

1 year and 8 months

### Nominated Project Contact(s)

WPD Future Networks Team (01332 827446)

### Project Budget

£434,565.00

## Summary

The key task of this project is to determine if demand side response is effective for communities who have demand information and incentives available to them. Western Power Distribution have selected the Centre for Sustainable Energy as a partner as we have worked together before and have a good working relationship and have excellent resources in close proximity to Western Power Distribution's head office. Western Power Distribution are working with four other charitable organisations that specialise in energy spread across Western Power Distribution's licence area that will help select 10 communities with different characteristics to be involved in the project. There will be particular emphasis on communities that have high low carbon technology adoption (such as heat pumps, electric vehicles and photovoltaics). This will increase learning on understanding how low carbon technologies change demand profiles and affect the Low Voltage (LV) network.

Community level electricity network and energy flow data will be collected and this will be shared with the community via a website and specially designed energy monitor that can display the individual's demand and the overall community demand. The community will also get local energy efficiency advice from energy charities. Western Power Distribution will be incentivising the communities to reduce demand at peak periods of the day to reduce potential overloading of the LV network. This will be done in a way similar that a supplier or DNO in the future could use time of day tariffs. Once the demand profiles have been understood through interaction with the communities the findings can be reported to explain how effective the demand side response actually was.

### Nominated Contact Email Address(es)

wpdinnovation@westempower.co.uk

## **Problem Being Solved**

## **Method(s)**

## **Scope**

## **Objective(s)**

The project has listed the following objectives:

- Understanding the effectiveness of demand side response at a community level.
- Understanding what effect do incentives provide
- Communities are successfully engaged and that we receive positive feedback
- Developing a community energy monitoring device
- Understanding the potential affects of low carbon technology on the LV network
- Delivering the project on budget and on time.

## **Consumer Vulnerability Impact Assessment (RIIO-2 Projects Only)**

n/a

## **Success Criteria**

n/a

## **Project Partners and External Funding**

n/a

## **Potential for New Learning**

n/a

## **Scale of Project**

n/a

## **Geographical Area**

## **Revenue Allowed for the RIIO Settlement**

## **Indicative Total NIA Project Expenditure**

## 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)

n/a

#### Please provide a calculation of the expected benefits the Solution

n/a

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

n/a

#### 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**

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)**

n/a

- Has the Potential to Develop Learning That Can be Applied by all Relevant Network Licensees

**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.**

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

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

## 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