

NIA Project Registration and PEA Document

Date of Submission

Feb 2013

Project Reference Number

Project Registration

Project Title

ENA Research & Development Programme

Project Reference Number

Project Licensee(s)

Scottish and Southern Electricity Networks Distribution

Project Start

April 2005

Project Duration

5 years and 0 months

Nominated Project Contact(s)

SSEN Future Networks Team

Project Budget

£140,000.00

Summary

The Energy Networks Association (ENA) represents all of the UK network operators. Several projects have been initiated by the ENA R&D Working Group and have been funded through the IFI.

Nominated Contact Email Address(es)

frp.pmo@sse.com

Problem Being Solved

Method(s)

Scope

Objective(s)

The projects listed below address issues which have been identified by the ENA Working Groups as significant issues requiring technical investigation and development:

- Harmonic Impedance Modelling: The project addresses the detailed modelling of cable and overhead line components, to develop cable models appropriate for distribution networks
- KEMA Workshops 11 and 12: Consider potential issues and opportunities presented by demand response and to establish the booklet Cool Use of Energy (CUE) and the terms of reference for the two reports CUE 1 and 2. Subsequently the use of the term CUE has been changed to demand response and this is the current title of the ongoing work with ERA (Energy UK)
- KEMA Cool Use of Energy Reports 1 and 2: Support a number of ENA/ERA joint demand response workshops which developed a list of requirements that can be considered as key tasks to transform the traditional power sector

- KEMA Smart Grids Standards Review: Aim to focus on the impact of developments of the above standards (excluding commercial standards), on the GB electricity networks community, which will be affected profoundly by these activities
- KEMA Cyber Security Report: Provide an approach and management framework to address the cyber security challenges face nationally by the DNOs as the current network infrastructure is developed with new smart grid systems and technologies
- Redpoint Scenarios: Survey the studies of future energy provision in the UK currently in the public domain and produce a common stance on investment requirements
- Engage Access to Data: Identify the key smart metering and smart grid benefits that network operators will need to deliver to support the Governments low carbon agenda efficiently
- Engage Privacy Impact Assessment: Assess the privacy issues surrounding the use of smart meter data by DNO's and identify measures that can be taken to mitigate stakeholder concerns
- Telent Smart Grid Communications: Survey the DNO communications managers to understand both the extent of existing communications deployment/penetration on electricity networks and their aspirations for extending that deployment
- KEMA LCNF Catalogue: Develop the first stages of a GB smart grid coverage catalogue, focusing on Low Carbon Network Fund (LCNF) (LCNF) Tier 1 and Tier 2, and the Innovation Funding Incentive (IFI) funded Registered Power Zones (RPZ) projects
- KEMA OTEG Report: Explore a number of innovative Web based solutions to presenting the progress of LCNF projects including video recordings by engineers and managers involved in the process
- Smart Grid Forum Workstream 3 Phase 1 & 2: Takes the impact of GBs future energy scenarios into key strategic directions for network development, identifying the needs for network expansion and the opportunities for smart grid techniques to drive cost efficiency and deliver new services. It considers the enablers for change, including the necessary development of commercial and regulatory frameworks.

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 RII0-1 and RII0-2 NIA projects. This is noted in each case, with the requirement numbers listed for both where they differ (shown as RII0-2 / RII0-1).

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 RII0-2 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 (RII0-1 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 RII0-1 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

RII0-2 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