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## NIA Project Registration and PEA Document

### Date of Submission

Feb 2014

### Project Reference Number

NIA\_NGET0107

## Project Registration

### Project Title

Stakeholder attitudes to electricity infrastructure

### Project Reference Number

NIA\_NGET0107

### Project Licensee(s)

National Grid Electricity Transmission

### Project Start

October 2013

### Project Duration

8 years and 6 months

### Nominated Project Contact(s)

John Swanson

### Project Budget

£160,000.00

## Summary

This project addresses a problem that is common to all network companies. The InspireGrid component draws collaboratively on understandings and best practice across Europe to develop an improved understanding of the underlying issues and principles. The studentship builds on the track record of work in this area from the academic group concerned.

### Nominated Contact Email Address(es)

box.NG.ETInnovation@nationalgrid.com

## Problem Being Solved

Public concern about and opposition to new power line proposals is well-recognised and presents an increasing challenge to meeting future energy needs. This issue is highly relevant to all UK network companies given the substantial programme of new lines required to connect new generation. If this problem is not addressed, delays to granting consent or even failure to obtain consent are likely, as well as customer and stakeholder dissatisfaction.

## Method(s)

### Research

Social science research based on interviews and case studies, with two components: "InspireGrid", a collaborative EU research programme, and a PhD studentship at Exeter University.

InspireGrid has the following specific steps:

1. the analysis of the needs, concerns, wants and expectations of stakeholders and general public
2. the development or adaptation of methodologies to assess impacts and benefits

3. the development of suitable processes for an effective communication and real participation of the stakeholders and general public
4. a series of case studies (taking into account geographical location, size of the infrastructure and stage of completion of the scheme), with a double aim: to give elements to the methodological activities and to allow a proper testing
5. a synthesis of the project results and a series of recommendations about the stakeholders and general public engagement
6. the dissemination of the project results and output.

The studentship has a particular focus on understanding how people's relationship to the place where they live affects their response to proposed power lines, and on the interplay between local and national factors.

## Scope

This project addresses a problem that is common to all network companies. The InspireGrid component draws collaboratively on understandings and best practice across Europe to develop an improved understanding of the underlying issues and principles. The studentship builds on the track record of work in this area from the academic group concerned.

## Objective(s)

The overarching goal of this proposal is to gain a better understanding of how to structure consultations to fully address stakeholder concerns.

The InspireGrid component will develop a methodology to manage the consultation in order to engage the stakeholders in the decision making process and to improve support for development of future grid infrastructure. Based on a multidisciplinary approach, it is proposed to design and develop a European good practice guide led by experts in the field of development of grid infrastructure and environmental and social acceptance issues.

The studentship will develop improved understanding of factors that lead stakeholders to respond in the ways they do, and hence will allow network companies to structure their consultations more effectively.

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

n/a

## Success Criteria

The success criteria for this project include:

- InspireGrid will create a best practice guide relating to an improved understanding of the underlying issues and principles of electric and magnetic fields.
- The Studentship will published papers setting out the new insights gained and develop seminars and presentations for relevant staff from Network Licensees.

## Project Partners and External Funding

n/a

## Potential for New Learning

n/a

## Scale of Project

InspireGrid is an appropriate scale for a pan-European research project, as endorsed by the EU funding. National Grid's contribution is at an appropriate level to play our intended role in the project.

The studentship comprises 50% funding of one PhD student.

Reducing the scale of either element of this project would significantly diminish the chances of meeting the project objectives.

## Technology Readiness at Start

TRL2 Invention and Research

## Technology Readiness at End

TRL3 Proof of Concept

## Geographical Area

InspireGrid: Europe.

Studentship: UK

## Revenue Allowed for the RIIO Settlement

None

## Indicative Total NIA Project Expenditure

NGET NIA project expenditure is £160,000

## 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)

Delays to obtaining Consent for overhead line connections can lead to delays in Generation customers being able to start generation. The costs of such delays are specific to customers but are clearly considerable.

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

Not required for research projects.

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

All GB electricity networks at all voltage levels.

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

It is not expected that there would be significant costs in rolling out the learning from this project. However, the project involves the development of a best practice guide. The potential additional cost of adopting the approaches identified by both studies cannot be estimated at this stage.

### 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 trialed 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

## RIO-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 face similar problems with public opposition (although the scale of National Grid's problems are the greatest) and therefore all can benefit from improved techniques of engaging stakeholders in public consultations based on improved understanding of the underlying factors driving public concerns.

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

## 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