Notes on Completion: Please refer to the appropriate NIA Governance Document to assist in the completion of this form. The full completed submission should not exceed 6 pages in total.

NIA Project Registration and PEA Document

Date of Submission

Jan 2018

Project Reference Number

SSEEN0

Project Registration

Project Title

TRANSITION

Project Reference Number

SSEEN0

Project Licensee(s)

Scottish and Southern Electricity Networks Distribution

Project Start

January 2018

Project Duration

3 years and 6 months

Nominated Project Contact(s)

SSEN Future Networks Team

Project Budget

£14,500,000.00

Summary

There is widespread recognition that the GB network needs to become more flexible. Delivery of the best whole system outcome for consumers will depend upon DNOs taking an increasing role in delivering an efficient, coordinated and economical system. This will require active use of new technologies, solutions and providers, with significantly increased engagement between the DNOs, SO and TOs. This transition toward the new Distribution System Operator (DSO) model promises significant benefits for consumers but presents all licensees with new challenges and risks.
The industry-wide ENA TSO-DSO Project has been established to provide a more detailed view on the transition to a flexible energy system. The outputs from Workstream 3 (WS3) of this project (DNO to DSO transition), include a DSO road map, functional requirements and market model options. The objective of TRANSITION is to design, develop, demonstrate and assess the tools, data and system architecture required to implement the proposed models arising from the TSO-DSO Project, with a focus on the outputs from WS3 to help inform and de-risk the industry's transition to DSO. SSEN and ENW are continuing discussions with other licensees on further collaboration opportunities to maximise value from this project.

Preceding Projects

PRJ_403 - Northern Isles New Energy Solutions (NINES)

EDFT2001 - Low Carbon London

NIA_SSEN_0041 - MERLIN (Modelling the Economic Reactions Linking Individual Networks)

Third Party Collaborators

CGI

Origami Energy

baringa

Atkins

Nominated Contact Email Address(es)

fnp.pmo@sse.com

Problem Being Solved

Method(s)

Scope

Objective(s)

There are already moves toward a more flexible system, with the implementation of pioneering initiatives such as Active Network Management (ANM) and Constraint Managed Zones (CMZ). These have only been possible due to the learning outcomes from previous innovation projects, which have helped prepare DNOs and the wider industry for the transition to a DSO.
Work Stream 3: DNO to DSO Transition will build on this early work and produce a transition road map, functional requirements and potential DSO market models. Based on the road map, the TRANSITION project will look to develop functional tools prior to demonstration across a range of network scenarios. This will ensure that the proposed models are validated to establish their technical, commercial and market suitability.
The NIC project will consist of six Stages, with a Stage Gate prior to the trial deployment. The project structure will be confirmed in the full submission.

- Stage 1: based on the SGAM outputs produced in WS3, develop technical, commercial and market requirements for identified market models;
- Stage 2: Engage with a range of stakeholders to define, agree and validate the functional and non-functional requirements to deliver the models;
- Stage 3: Identify the deployment requirements necessary to validate the proposed DSO models; this should consider a range of geographies and network configurations;

-Stage Gate-

- Stage 4: Deployment;
- Stage 5: Operation and assessment; and
- Stage 6: Learning and dissemination activities will be structured throughout the project to ensure knowledge is captured and shared on an incremental basis.

To ensure a robust solution, SSEN issued a "third party challenge" based around the transition to DSO. Over fifty responses were received with a range of proposals relating to technical and commercial challenges of the DSO transition. Following detailed assessment, a number of the respondents have been identified to progress the scope of TRANSITION. This will ensure that the project benefits from a much broader range of knowledge, skills and experience to give a more robust outcome

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