

SSEN – Network Innovation Competition Third Party Bid Challenge

Introduction

For Ofgem’s 2017 Network Innovation Competition (NIC) Scottish and Southern Electricity Networks has issued this Call for Information to enable a third party to either submit an NIC application themselves **or** to participate in bid led by SSEN. The key Challenges which SSEN are looking to address through the NIC are outlined below.

This document outlines the process which SSEN intends to follow and the timeline through to the Full Submission. The first stage is to complete the attached response document by 13 Feb 2017 (12pm)

SSEN is engaging with third parties to investigate the potential availability of innovative solutions to the challenges outlined below.

This call has been published on the SSEN innovation website, ENA Collaboration portal, EIC and the ‘Tenders Electronic Daily’ (TED) supplement to the Official Journal’ of the EU. In all instances further information can be requested from futurenetworks@sse.com.

***** Important note for potential suppliers *****

It is anticipated that supplier responses to this Call for Information will inform SSEN and enable SSEN to publish a further ‘refined’ problem statement and/or requirement for an innovative solution/ service provision. To fulfil SSEN’s ultimate ‘Business as Usual requirements’ (BAU), SSEN intends to run a regulated procurement event in accordance with the OJEU UCR 2016.

Suppliers are advised that participation in this ‘Call for Information’ doesn’t guarantee the supplier an award of contract or an invitation to participate any further with SSEN, nor qualification onto any subsequent future procurement event.

Details for any resulting Procurement/ Tender event will be published through TED, where suppliers will be able to register their interest with SSEN in due course.

Challenges

Discussed below are network challenges that require technical or commercial solution(s). For all these challenges, a technical or commercial solution will be considered for installation or implementation at any point on the distribution network or the transmission network.

1. Preparing for DSO

In support of the transition to DSO we are looking for innovation support to identify the various enablers (new technologies and commercial arrangements) that will require to be developed in order to realise a fully effective DSO model.

There is a growing recognition that there are a number of different potential business models which could support the transition to a DSO model. All of these will rely on the appropriate network data being gathered and analysed to allow the network to be operated more efficiently. Similarly, most of the models propose a complex portfolio of services (demand reduction, storage, reactive control etc.) either in the form of bilateral contracts or a market. It is also recognised that individual sections of the Distribution network will have different issues at times. Taken in combination, this has the potential to become a very large, very complex system.

To date our deployment of flexible solutions within SSEN have been relatively low in number, and the portfolio has been managed by our Active Solutions Team. In order to realise the full potential of the move to a full scale DSO, more complex and automated systems will be required, which will require a broader range of capabilities than those currently available, amongst others, the areas to be addressed could include :

Data:

- Data exchange between parties;
- Rogue and missing data;
- Communication systems failure; and
- Cybersecurity.

Services:

- Real time triggering of service provision;
- Identification of Service failure to deliver;

- Service provision “testing”; and
- Contract management.

Asset Management:

- Identification of critically reducing margins;
- Asset investment triggers; and
- Forecasting tools.

The challenge identified here is to provide the solutions, systems and methodologies that will be necessary to enable DNOs to make this change and to be better prepared for the transition to a DSO model.

2. Extracting added value from Data to manage our Assets

SSEN want to be the most efficient network operator. We are looking for support to increase the value that we can extract from our existing and new data sources to reduce costs and maximise benefits for our customers.

Improving the understanding of the health and capacity of our assets is a key enabler to appropriate maintenance, operation and investment strategies. It is also a key factor in allowing network operators to safely operate their networks more efficiently.

The costs of sensors, communication systems and power supplies continue to fall and analytics and data management continues to become more sophisticated. This offers the potential to utilise data in new ways to provide benefits for our customers.

We welcome solutions which would allow us to cost effectively monitor the mechanical, structural, electrical and systemic health of a broader range of our assets in all areas using new and existing sensors. Ideally these can be combined with other public and industry data sets and analytics to allow for additional value to be derived.

In particular we are keen to identify data sets or combinations that drive multiple benefits e.g. Pre-fault location, Active Network Management, asset investment capacity release and safety performance.

This could include non-destructive testing methods, methods for inspection or monitoring assets including conductors, supports, structures, buildings, cables (including subsea) and any other transmission or distribution equipment.

In line with our commitment to keep costs to a minimum for customers, we also welcome projects which will help us to gain further value from our existing or any new monitoring data. This could include the use of analytic techniques which will deliver additional insights from our existing data sets if they are combined with other available datasets such as meteorological or locational data to predict health, identify failures, predict faults or plan maintenance of non-monitored assets.

SSEN are looking for innovative solutions which will provide richer and more robust sources of data on the condition and health of our assets. Equally we are keen to understand new ways of analysing our existing data including the use of additional external data to derive better value for our customers.

NIC Requirements

The NIC is an annual opportunity for network licensees to compete for funding for the development and demonstration of new technologies, operational techniques, alternative commercial arrangements and innovative business models. Up to £81m per year is available through the Electricity NIC.

Full details of the NIC process are set out in Ofgem's Electricity NIC Governance Document. To be eligible for funding a NIC project must involve the development or demonstration of at least one of the following:

- A specific piece of new (i.e. unproven in GB) equipment (including control and/or communications systems and/or software);
- A specific novel arrangement or application of existing electricity transmission and/or distribution equipment (including control and communications systems software);
- A specific novel operational practice directly related to the operation of the electricity Transmission System/Distribution System; or
- A specific novel commercial arrangement.

Also, it must be robustly demonstrated that a project meets all the following criteria:

- Accelerates the development of a low carbon energy sector and/or delivers environmental benefits while having the potential to deliver net financial benefits to existing and/or future network customers;
- Delivers value for money for electricity customers;
- Creates knowledge that can be shared across energy networks in Great Britain (GB) or create opportunities for roll-out across a significant proportion of GB networks; and
- Is innovative (i.e. not business as usual) and has an unproven business case where the innovation risk warrants a limited Development or Demonstration Project to demonstrate its effectiveness.

Submission Requirements

1. Applicants are required to familiarise themselves with the full NIC submission requirements and documentation. Further details on the NIC can be found at <https://www.ofgem.gov.uk/network-regulation-riio-model/network-innovation/electricity-network-innovation-competition> . In particular applicants are advised to fully understand the requirements set out in the NIC Governance document.
2. Please note that the NIC mechanism is currently under consultation and may be subject to change. Further information can be found at <https://www.ofgem.gov.uk/publications-and-updates/network-innovation-review-our-consultation-proposals>
3. Applicants are advised to familiarise themselves with previous NIA and NIC projects and ensure that their proposal does not entail any unnecessary duplication.
4. Any proposal must have quantified benefits for electricity network customers and for the wider electricity industry.
5. Only information contained in the attached proforma will be considered in the evaluation, any additional information will be discounted.
6. In the event that a proposal is not progressed for NIC funding, consideration will be given, where appropriate, to funding the proposal under SSENs Network Innovation Allowance (NIA).
7. SSEN are keen to enter into innovative commercial arrangements with potential suppliers and third parties for the delivery of any potential project.
8. Submissions should be limited to six pages as outlined in the attached proforma.

Assessment Criteria

Responses will be assessed on the following criteria:

Criteria	Sub Criteria
Benefits	<ul style="list-style-type: none"> Financial benefits to Network Customers
	<ul style="list-style-type: none"> Financial benefits to wider system
	<ul style="list-style-type: none"> Capacity released kW
	<ul style="list-style-type: none"> Environmental benefits
Method Proposed	<ul style="list-style-type: none"> No. of problems/challenges addressed
	<ul style="list-style-type: none"> Quality of Innovation
	<ul style="list-style-type: none"> Risk Management
	<ul style="list-style-type: none"> Quality of Learning
Financial / Delivery	<ul style="list-style-type: none"> Funding arrangements
	<ul style="list-style-type: none"> Compliance with NIC Governance
	<ul style="list-style-type: none"> Quality of delivery plan
	<ul style="list-style-type: none"> Quality of Cost Plan

Timeline

Requirement	Date
Issue Call to providers	30 Jan 2017
Submission of Initial Proposal	13/02/2017 (12pm)
Notification of Progress to Information Day	17/02/2017
Attend Information Day Meeting	7/03/2017
Selection of project for NIC	12/03/2017 - (Exact date tbc)
Submit ISP	Early April 2017 - (Exact date tbc)
Announcement of Bid to Proceed to FSP	Late April 2017 - (Exact date tbc)
Submit FSP	Late July 2017 - (Exact date tbc)
Q+A process	August – October 2017 - tbc
Attendance at bilateral meetings in London	August – October 2017 - tbc

Expressing Your Interest

To express your interest please complete the attached form and return it to futurenetworks@sse.com by 13 February 2017 (12pm).