

## NIA Project Registration and PEA Document

### Date of Submission

Mar 2019

### Project Reference Number

NIA\_SSEN\_0036

## Project Registration

### Project Title

Social Constrained Managed Zones (CMZs)

### Project Reference Number

NIA\_SSEN\_0036

### Project Licensee(s)

Scottish and Southern Electricity Networks Distribution

### Project Start

March 2019

### Project Duration

0 years and 10 months

### Nominated Project Contact(s)

Joe McNeil

### Project Budget

£190,000.00

## Summary

SSEN have released 5 CMZ zones to date, all structured around reinforcement deferral where the NPV of postponing reinforcement over a 4-6-year term provides the overall value of the service provision. To date, tender responses received from CMZ type procurement exercises have largely been from large scale I+C customers such as energy storage providers. Whilst, there has been an appetite from smaller community led initiatives to become involved CMZ, this has proven to be challenging for them due to the burden of conforming with the requirements of an OJEU procurement exercise and commercial barriers in place to protect the business such as Achilles registration.

In addition, SSEN's current tender assessment process does not currently consider the wider societal benefit of a community providing the Flexibility, generation or efficiency of a CMZ service. Although SSEN has established a clear case for communities and local organisations providing services to a DSO, local groups are currently behind the curve in understanding this business case and as a result need assistance to commit to the concept. In short, the market place at a community level needs assistance and stimulation.

### Nominated Contact Email Address(es)

fnp.pmo@sse.com

## Problem Being Solved

SSEN have released 5 CMZ zones to date, all structured around reinforcement deferral where the NPV of postponing reinforcement over a 4-6-year term provides the overall value of the service provision. To date, tender responses received from CMZ type procurement exercises have largely been from large scale I+C customers such as energy storage providers. Whilst, there has been an appetite from smaller community led initiatives to become involved CMZ, this has proven to be challenging for them due to the burden of conforming with the requirements of an OJEU procurement exercise and commercial barriers in place to protect the business such as Achilles registration.

In addition, SSEN's current tender assessment process does not currently consider the wider societal benefit of a community providing the Flexibility, generation or efficiency of a CMZ service. Although SSEN has established a clear case for communities and local organisations providing services to a DSO, local groups are currently behind the curve in understanding this business case and as a result need assistance to commit to the concept. In short, the market place at a community level needs assistance and stimulation.

## Method(s)

The project will provide a stream of stakeholder engagement which will aid smaller community organisations to take part in the CMZ process, starting with two areas of Drayton and Coxmoor Wood. This will be achieved through the following:

- An initial event in each of the two geographical areas to gain information and opinions from the community groups about the project and the CMZ process
- A stakeholder engagement research piece in collaboration with National Energy Action (NEA) to identify the correct groups and methods of engagement
- Development of a materials pack to share with community groups
- A suite of internal processes for simplified legal and procurement documents for use with smaller community groups
- Running an informative workshop with community groups interesting in providing SCMZ services
- Providing support for community groups in the form of an option of seed funding or SSEN funded consultancy support to aid the production of procurement documentation and PQQ/ITT submissions

## Scope

The project has three aspects:

- Work in the Drayton and Coxmoor Wood and will support community groups to submit tender responses to the ongoing procurement process for the CMZ zones in those locations. The project scope includes the provision of support in relation to the tender in these locations only (SCMZ Delivery Document)
- Work on the documentation of a longer-term process, to allow for the replication of this process in other areas
- Identify a method for accounting for the social and environmental benefits for the SCMZ providers participation

## Objective(s)

The objectives of the project are:

- 1) To reduce the barriers of participation in the CMZ process for smaller community groups by:
  - Producing documentation that will aid smaller community groups in understanding the process and requirements of the SCMZ process
  - Providing direct support to interested providers in the Drayton and Coxmoor Wood areas, through seed funding and/or consultant support
- 2) Determining the internal processes required for a future rollout of SCMZ to encourage participants in other CMZ areas by:
  - Working with legal, planning, regulation, CMZ and procurement teams to design processes for the trial which pass approval from all these internal teams
  - Gain approval for use of these processes for BAU applications
- 3) Determine a method for calculating the social and environmental benefits of SCMZ provider participation to include in network planning decisions in future by:
  - Working with BEIS and Ofgem on calculations and approval

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

n/a

## Success Criteria

The project will be deemed successful if:

- 1) SCMZ Providers are passed to the CMZ team to take part in a BAU process
- 2) The SCMZ processes are approved to be rolled out across other CMZ areas
- 3) A method for calculating the social and environmental benefits of SCMZ participation is developed and approved

## Project Partners and External Funding

NEA

## Potential for New Learning

The SCMZ project has potential for learning to share among the GB DNOs. The immaturity of the flexibility market is a major blocker to the utilisation of flexibility in managing distribution related constraints and this project will progress the understanding of the market and how to advance its maturity within smaller organisations.

The project will provide a proven method of mobilising dormant flexibility (marginal cost) within an area and will maximise the likelihood of affordable flexibility being available to DSOs. This should include: opportunities, barriers to entry and recommendations for further market stimulation in the future. In addition, the learning associated with the quantification of societal and environmental benefits will allow for understanding of the wider impact and benefit of expanding the flexibility and DSR marketplaces.

There will be two main documentation outputs from the project which will be shared between the DNO's are:

- SCMZ 'delivery document' (outlined process) will enable the replication of the process within BAU implementations of SCMZ in wider zones, without the need for additional resource. It will also be accessible for other DNOs and industry partners once completed and successful as an example of best practice
- SCMZ 'Index' Document to be utilised in future BAU implementations of SCMZ and circulated as an example of best practice among DNO's, ENA, industry partners and potential SCMZ communities

Scale of Project

The project works in two substation areas, for one CMZ tender period.

Technology Readiness at Start

TRL5 Pilot Scale

Technology Readiness at End

TRL8 Active Commissioning

Geographical Area

The project will explore the two regions of Coxmoor Wood (Hampshire) and Drayton (Oxfordshire)

Revenue Allowed for the RIIO Settlement

N/A

Indicative Total NIA Project Expenditure

£186,000

## 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)

The savings will be the delay of reinforcement (and option to not invest if expected demand does not materialize)

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

Base costs include traditional reinforcement of Drayton and Coxmoor Wood – NPV @ 16 years = -£3.64m  
Project – Implementation costs = £0.186m, Ongoing costs = £0.02m/year TOTAL = £0.182m Investment delayed by 2 years at Drayton and 3 years at Coxmoor Wood – NPV @ 16 years £-3.38m  
Total project benefit = £0.27m NPV @16 years

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

Expected SSEN Rollout within RII0ED1 – 6 sites  
Expected SSEN benefit within RII0ED1 assuming savings similar ~ £1.62m

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

It is expected that the costs of rollout will be much lower than the initial project costs as the learning will be used in future sites. The documentation and guidance can be used across GB by DNOs. The site specific rollout costs will depend on availability payments for flexibility as decided by reinforcement costs and costs benefits by each DNO at the investment planning stage. For SSEN, the cost will be a factor in the CMZ BAU process once the market is stimulated.

### 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

#### 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 are utilizing flexibility to defer network reinforcement and as part of their network planning suite of tools. All three aspects of the project provide learning for other DNOs. The societal benefits can be applied across the GB network, as can the learnings in engaging with smaller community groups in flexibility tendering.

#### 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.

This project complements the suite of CMZ services that are being offered as BAU at SSSEN, there is no duplication of work and the project team are working closely with the BAU team to ensure this. While there are a number of projects across GB on flexibility this project is specifically focusing on the methods of engaging with smaller community organisations.

#### 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

Plenty projects have been done with communities demonstrating how they can provide flexibility however the commercial aspects of this have not been addressed. This project will focus on the stimulation of the market for flexibility provision by small community groups and organisations such as housing associations, local businesses, schools, etc. Tenders we have done through the CMZ process have failed to attract engagement from these key groups creating the potential for a less fluid market and key groups being left behind. The project will effectively provide a template through which communities can engage from starting from a point of low awareness up to the point of full commitment. The funding will effectively de-risk the process of a community or SME entering a market with intermediaries and directly. It will include stakeholder mapping, development of technology offering, financing guidance and offering of seed funding or consultant support through the procurement process.

## 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**

SSEN are committed to utilising flexibility in network investment planning. Significant investment is occurring through the CMZ process and this funding will complement the existing BAU investment in order to stimulate the market further and bring new flexibility providers to market, encouraging a range of technology/offering types and organisation types. For clarity, all aspects of our tendering process and subsequent contract placement will be funded by BAU funding, the NIA funding will be focused on assisting and de-risking the process for those less engaged groups that could bid into this process.

### **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**

The NIA funding will allow investment to stimulate the market in smaller community groups that have not previously been able to access the procurement processes to tender for flexibility. Risks that are being addressed include. - Financial incentive alone are not enough to stimulate the local flexibility market. - Higher costs to bill payers as a result of an illiquid market. - Key sectors of our customer base being excluded from this early stage or market development - Loss of more holistic solutions such as energy efficiency and cross vector options. The project and processes it develops will help overcome the risks surrounding compliance with OJEU procurement regulations while allowing the business to explore procurement from non-traditional flexibility providers.

### **This project has been approved by a senior member of staff**

☒ Yes