Energy Networks Innovation Process

Annual Project Progress Report Document

The voice of the networks

Date of Submission: 02/07/2021

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Notes on Completion: Please refer to the NIA Governance Document to assist in the completion of this form. Please use the default font (Calibri font size 10) in your submission. Please ensure all content is contained within the boundaries of the text areas.

Project Title (*This cannot be changed once registered*)	Project Reference
TraDER	NIA_SSEN_0047

Funding Licensee(s)	Project Start Date
Scottish Hydro Electric Power Distribution	March 2020

Project Duration	Year
15 months	2021

Nominated Project Contact(s)
Peter Taddei

1. Scope

Electron, a UK based Entech company, have been appointed by BEIS to lead a consortium to develop a neutral, multi-product flexibility exchange as part of its FleX competition.

The consortium, named TraDER, brings together CGI, EdF Energy, Elexon, Energy Systems Catapult, Kaluza [an OVO company] and SSEN, alongside other key players in the emerging flexibility arena. It is looking to deliver a single access point to multiple energy services such as balancing, stability and network capacity.

SSEN's input to TraDER is funded via NIA rather than BEIS. SSEN will act as a facilitator to TraDER by enabling access to the Active Network Management (ANM) scheme currently operating in Orkney.

2. Objective(s)

SSEN will act as a facilitator to TraDER by:
Delivering data from the ANM system currently operating in Orkney.
Enabling changes to the ANM system in order to execute trades created by the TraDER platform.

In return, TraDER will deliver outputs which will allow SSEN to assess the impact of –
How trades can be implemented on the ANM scheme eg. changes to Last In First Out (LIFO) connection order, and associated costs to SSEN.
Scale of the market to ensure implementation costs can be recovered by SSEN.
Allows SSEN to assess the preferred Neutral Market Facilitator (NMF) model of 3rd parties. This assessment can feed into wider DSO related projects being undertaken by SSEN.

3. Success Criteria

The NIA project will be deemed as successful if all items in the objectives are met and provides effective support to the delivery of the larger TraDER BEIS project.

4. Performance compared to the original project aims, objectives and success criteria

Details of how the Project is investigating/solving the issue described in the NIA Project Registration Pro-forma. Details of how the Project is performing/performed relative to its aims, objectives and success criteria.

Between April 2020 and the end of March 2021 the following progress was achieved;

1. **How trades can be implemented on the Active Network Management (ANM) scheme eg. changes to Last In First Out (LIFO) connection order, and associated costs to SSEN.**

To date, the project has successfully designed a process from which ANM data can be captured and transmitted to Electron in near real-time. Further work is being undertaken to deliver this active link from SSEN's Centralised ANM system prior to the project end.

During the development work it was identified that LIFO stack trading was not a priority and could not be implemented without costly modification to the fundamental operation of the ANM system. Electron identified that maximum value could be gained from ANM headroom data being sent from SSEN to Electron. This variation in approach will be fully documented in the BEIS reporting that Electron undertakes. As the NIA project was created to support the larger BEIS project, the deliverables were changed to support the delivery of the ANM headroom data.

2. **Scale of the market to ensure implementation costs can be recovered by SSEN.**

Implementation costs thus far have been minimal. SSEN's costs are captured and will be reported during the project closedown. Electron are investigating methods by which TraDER can be further developed to provide a fully commercially viable market. SSEN are supporting ongoing discussions with Electron and potential funding partners.

3. **Allows SSEN to assess the preferred Neutral Market Facilitator (NFM) model of 3rd parties.**

TraDER has given SSEN a detailed insight into the types of data that will be requested both now and in the near future. These requirements have been captured as part of the lessons learnt and will be shared with larger DSO related projects such as TRANSITION during the project closedown. TraDER has also given Electron learnings on the processes required to be undertaken to integrate with systems that form part of Critical National Infrastructure. These learnings will be reported as part of the BEIS project.

5. Required modifications to the planned approach during the course of the project

The Network Licensee should state any changes to its planned methodology and describe why the planned approach proved to be inappropriate. Please confirm if no changes are required.

A change was made to move away from LIFO stack trading within the TraDER project to support Electron's response to market demand for ANM headroom data. This will be further documented by Electron within the BEIS reporting.

6. Lessons learnt for future projects

Recommendations on how the learning from the Project could be exploited further. This may include recommendations on what form of trialling will be required to move the Method to the next TRL. The Network Licensee should also state if the Project discovered significant problems with the trialled Methods. The Network Licensee should comment on the likelihood that the Method will be deployed on a large scale in future. The Network Licensee should discuss the effectiveness of any Research, Development or Demonstration undertaken.

Discussions are ongoing with regards to further development of the TraDER market and platform. This will be further documented by Electron within the BEIS reporting.

7. The outcomes of the project

When available, comprehensive details of the Project's outcomes are to be reported. Where quantitative data is available to describe these outcomes it should be included in the report. Wherever possible, the performance improvement attributable to the Project should be described. If the TRL of the Method has changed as a result of the Project this should be reported. The Network Licensee should highlight any opportunities for future Projects to develop learning further.

Outcomes will be reported during the project closedown upon completion of the project objectives.

8. Data Access & Quality Details

A description of how any network or consumption data (anonymised where necessary) gathered in the course of the Project can be requested by interested parties. This requirement may be met by including a link to the publicly available data sharing policy.

For information on how to access data gathered in the course of the project see Network Innovation Competition (NIC) and Network Innovation Allowance (NIA) Data Sharing Procedure at https://www.ssen.co.uk/InnovationLibrary/Distribution/

9. Foreground IPR

A description of any foreground IPR that have been developed by the project and how this will be owned.

N/A