Scottish and Southern Energy Power Distribution

Date of Submission

July 2014

Network Innovation Allowance Progress Report

Notes on Completion: Please refer to the appropriate NIA Governance Document to assist in the completion of this form.

Network Licensees must publish the required Project Progress information on the Smarter Networks Portal by 31st July 2014 and each year thereafter. The Network Licensee(s) must publish Project Progress information for each NIA Project that has developed new learning in the preceding relevant year.

Project Progress

Project Title		Project Reference
Lightning Protection		NIA_SHET_0011
Project Licensee(s)	**Project Start Date**	**Project Duration**
Scottish Hydro Electric Transmission	Dec 2013	3 Years

Nominated Project Contact(s)

David MacLeman

Scope

The scope of this project is to build and verify simulation models of lightning strikes on lines where the towers have high footing resistances (applicable to steel-lattice towers at voltages of 132kV and above), and investigate the protection options to inform decisions on lightning protection approaches.

Objective(s)

1) Understand the behaviour of transmission lines under lightning strike conditions.

2) Determine the alternative techniques to provide lightning protection on transmission lines.

3) Create recommendations for a lightning protection policy for transmission lines.

This is intended to inform the further development of SHE Transmission's lightning protection policy.

Success Criteria

The project will be successful if it can deliver recommendations to further improve our approach to lightning protection , and more informed decisions on lightning protection options can be made.

Performance Compared to the Original Project Aims, Objectives and Success Criteria

A PhD candidate has been appointed at Heriot-Watt University to undertake this project. Research work will begin September when the appointed student commences studies.

Required Modifications to the Planned Approach During the Course of the Project

None.

Lessons Learnt for Future Projects

The PhD student recruitment process went on longer than initially envisaged. This provided an indication that additional contingency may need to be explicitly incorporated into future R&D projects involving academic partners.