

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

DC/DC Converter

Project Reference

NIA_SHET_0009

Project Licensee(s)

Scottish Hydro Electric Transmission

Project Start Date

Sep 2013

Project Duration

3 Years 6 Months

Nominated Project Contact(s)

David MacLeman

Scope

The scope of the project comprises:

- 1 Design and develop the software models of high power DC/DC converter
- 1 Study DC/DC converters, DC hubs and their integration with HVDC systems
- 1 Optimise the design of a DC/DC converter.
- 1 Produce conclusions and recommendations on the design of DC/DC converters and their use integrating HVDC systems.

This project is intended to complement our 2013 NIC submission (the MTTE), however neither of the projects are dependant on the other.

Objective(s)

The overall objective of the project is to develop a design for a DC/DC converter which could subsequently (as part of a potential separate project) be developed further into a laboratory demonstration.

More specifically the objectives of the project are to:

- 1 Develop an optimal DC/DC converter suitable for high power applications
- 1 Study the integration of DC/DC Converters and DC hubs with HVDC systems

Success Criteria

The project will be successful, if it produces robust conclusions on the design of a high power DC/DC converter.

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

Issues relating to the appointment of a PhD candidate to undertake the scope identified above have caused a delay in the project. The appointed PhD candidate is now expected to start work in August 2014.

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

None.

Lessons Learnt for Future Projects

None