electricity north west

Bringing energy to your door

NIA ENWL013
Detection of Islands

NIA Progress Report

31 July 2017

VERSION HISTORY

Version	Date	Author	Status	Comments
V1	16 May 2017	G Bryson		

REVIEW

Name	Role	Date
L Eyquem	Innovation Programme Assistant	10 July 2017
P Turner	Innovation Manager	16 July 2017

APPROVAL

Name	Role	Date
Steve Cox	Engineering & Technical Director	20 July 2017

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1 PROJECT BASICS

Project tile	Detection and prevention of formation of Islands via SCADA
Project reference	NIA_ENWL013
Funding licensee(s)	Electricity North West Limited
Project start date	January 2016
Project duration	2 years 6 months
Nominated project contact(s)	Geraldine Bryson (geraldine.bryson@enwl.co.uk)

2 SCOPE

The project is a proof of concept examination into the use of SCADA and ADMS as a solution to overcome the issue of island formation as a result of wider RoCoF settings.

3 OBJECTIVES

To produce a proof of concept paper and associated functional specification on the use of SCADA and ADMS to detect and fragment islands formed on the distribution network.

4 SUCCESS CRITERIA

This project will be considered a success upon production and publication of a proof of concept paper and associated functional specification on the use of SCADA and ADMS to detect and fragment islands formed on the distribution network. It is proposed that the outcomes of the project will be shared with industry experts and comments invited.

5 PERFORMANCE COMPARED TO THE ORIGINAL PROJECT AIMS, OBJECTIVES AND SUCCESS CRITERIA

A piece of work has been carried out to identify and detail the risks associated with the formation of islands and the various scenarios under which an island can be created. Using the risks and scenarios Electricity North West has reviewed whether the island could be maintained or needs to be shut down.

The above gave the criteria for a series of dynamic studies to simulate transition to an island network with the aim of demonstrating the conditions that are necessary for the continued operation of an island and the expected behaviour of the island. These studies are using an IPSA model of part of the Electricity North West system and include generation of different types. The studies are currently underway and when complete, the results will be used to establish the likelihood of an island forming and the criteria necessary to sustain the island.

6 REQUIRED MODIFICATIONS TO THE PLANNED APPROACH DURING THE COURSE OF THE PROJECT

There have been no changes to the planned approach.

7 LESSONS LEARNED FOR FUTURE PROJECTS

No lessons have been identified at this stage of the project.

8 THE OUTCOMES OF THE PROJECT

Not applicable.

9 PLANNED IMPLEMENTATION

Not applicable.

10 OTHER COMMENTS

Not applicable.