

# Enhanced Low Frequency Demand Disconnection (LFDD)

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## Project overview

An NIA project to investigate the use of existing relays to provide LFDD response. The project will also look to build intelligence into the system to identify sites with a high level of embedded generation

## Project objectives/stages

- 1 Design and develop algorithm to provide response
- 2 Upgrade relays at the trial sites
- 3 Carry out on site testing to prove the functionality
- 4 Refine and retest the algorithm as appropriate
- 5 Carry out a CBA of rolling out the method network wide

## The project

Enhanced LFDD will look to move the demand disconnection functionality from the existing relays installed at 132kV/ 33kV substation and replicate it at the 33kV/ 11kV sites lower down the network. This will allow for increased granularity in which sites are disconnected, meaning that we can avoid shedding ones which are net exporters at the time.

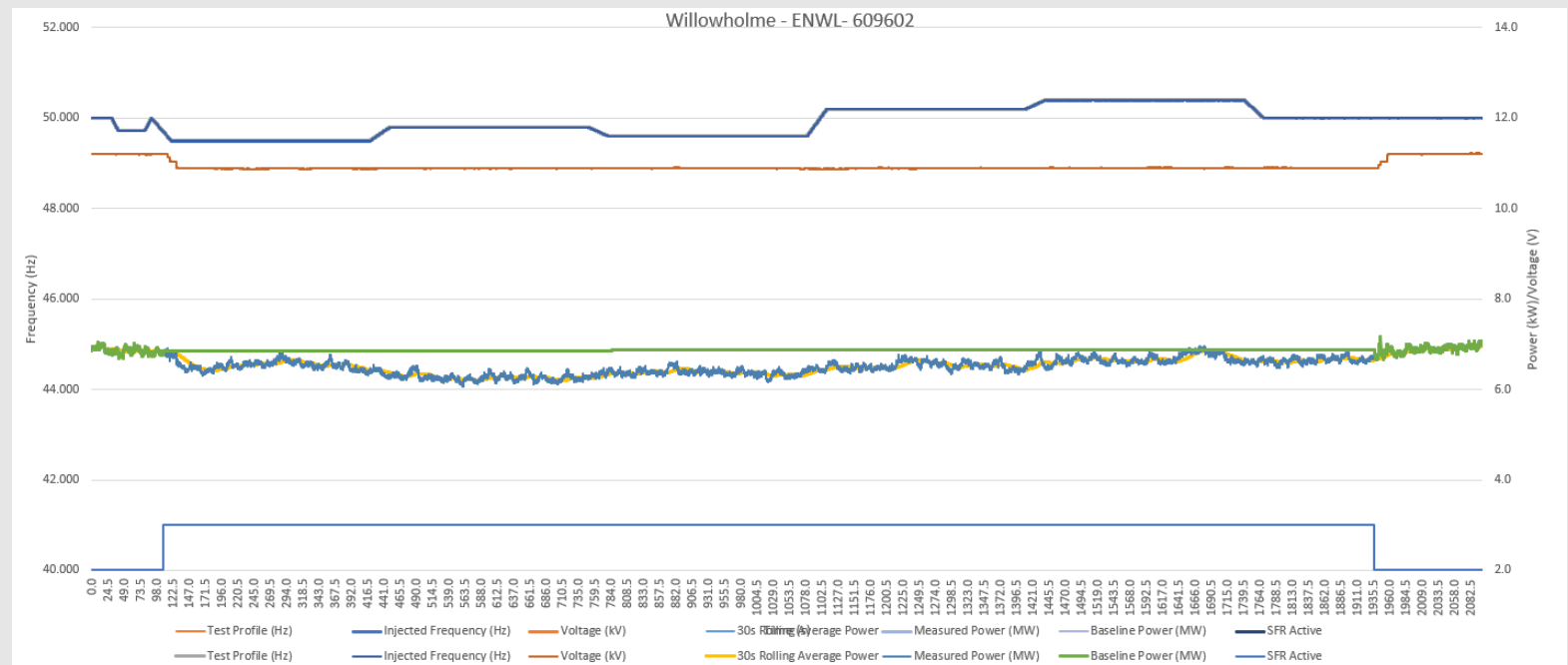


Fig 1 - Frequency triggered voltage reduction

## Overview

The project builds on our successful use of frequency based response from the SuperTAPP SG relay, as demonstrated in our CLASS project and subsequent roll-out. We will also look at the outputs of the SHEDD project to ensure we capture the learning. The project started in October 2021 and is expected to run for 18 months. The project will deliver a method of delivering a selective LFDD function using existing relays at the primary substation level.

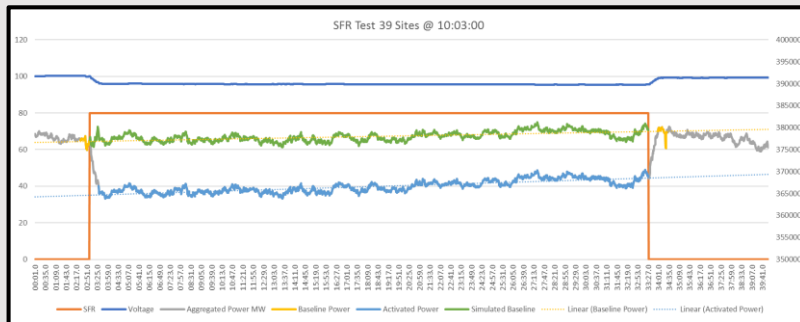


Adds functionality to existing relays – currently fitted as standard

Gives more flexibility in terms of disconnections

Maintains generation

Adds intelligence



## Contact

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Or visit our stand for more information.

## Project team

Include the logos of your organisation and your partners' organisations.

**electricity**  
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Bringing energy to your door

