

Grid Code Review Panel Update July 2006

Network Defence Against Widespread Voltage Collapse Low Voltage Demand Disconnection (LVDD)

Introduction

This paper provides an update to the Grid Code Review Panel on the progress of the LVDD Working Group.

Background

The LVDD proposal was raised at the February 2006 Grid Code Review Panel (GCRP) by National Grid. National Grid recommended a subgroup should be established to assess the technical, commercial and regulatory issues surrounding introduction of a LVDD scheme as a defensive measure.

National Grid proposed draft Terms of Reference for the subgroup, a summary of these are as follows:

1. Network Operators, Ofgem and other interested parties to assess whether LVDD should be introduced as a defence measure against widespread network voltage collapse, considering both the costs and risks
2. To discuss the commercial and regulatory issues. To discuss and agree whether Grid Code obligations should be introduced
3. To discuss and determine whether a LVDD scheme should be nationwide or focused in the areas most at risk
4. To develop a proposal for the basis of the Grid Code change

GCRP agreed with National Grid's recommendation and requested interested parties to make nominations to attend the subgroup.

Working Group

The first Working Group for LVDD was held on the 5th May 2006 and the following people attended the meeting:

Charlie Zhang	Edf energy
Cornel Brozio	SP Powers System
John Morris	British Energy
Paul Ward	United Utilities
Patrik Lewis	Western Power Distribution
David Ward	Magnox Electric Ltd
Bridget Morgan	Ofgem
Nilton Green	National Grid
Beverley Viney	National Grid
Emma Carr	National Grid
Mark Perry	National Grid
Darren Chan	National Grid

The group agreed the Terms of Reference proposed by National Grid.

During the meeting National Grid gave a brief presentation which considered the issues of voltage collapse, regulatory obligations, technical merits, financial impact and a possible way forward. National Grid outlined details of a LVDD feasibility study that had been undertaken for the Southwest and South coast area.

National Grid proposed criteria to assess whether consideration should be given to the installation of a LVDD scheme in any given area. These criteria are based on the likelihood of voltage collapse and the extent to which any collapse could impact on the whole GB system. Based on these criteria, National Grid identified the West Midlands and London as areas where LVDD should be further investigated, as significant widespread voltage collapse could occur due to severe contingencies.

Concern was raised about the effect of inadvertent tripping and the consequential compensation impact upon the DNO's under the terms of their incentive scheme. The group also identified that the potential for malicious action to bring down the system could assist in justifying the expense of a LVDD scheme.

Agreed actions and outcomes from the Working Group

Outcomes

The group agreed further work was required by National Grid focusing on London and the Midlands.

It was agreed that a joint Working Group report should be produced for Ofgem which discusses the impact, benefits and costs of introducing a LVDD scheme in order to obtain an indication of support from Ofgem before parties commit resources and time in developing a detailed design.

Actions

- National Grid to draft the joint Working Group report and issue to the group for comment by end of August.
- The Working Group members to comment on the above paper by the end of September.
- To hold the next meeting on the 3rd of October 2006 to finalise the draft report for issue to Ofgem.