



# Exercising Generator Target Voltage Instructions

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Presentation to GCRP Panel on 21<sup>st</sup> May 2009

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# Background

## History

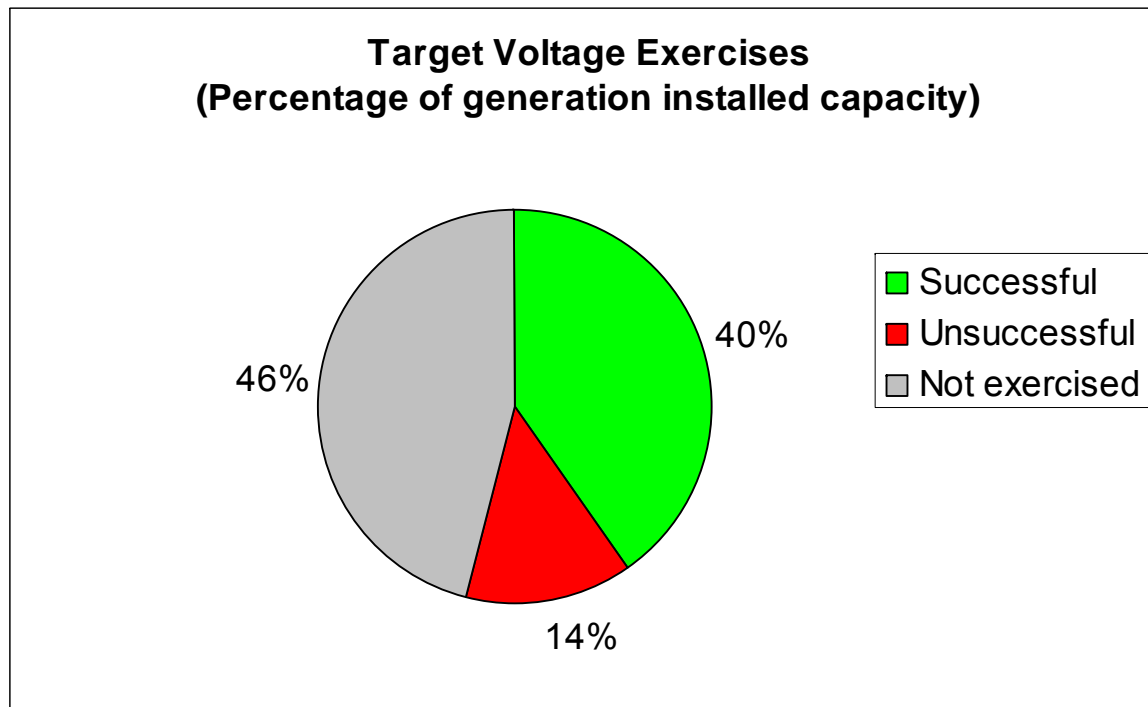
- ◆ Target Voltage is a form of ancillary services instruction required under the Grid Code: BC2.A.2.6 refers
- ◆ In the 1990's Target Voltage instructions were common, but nowadays familiarity has dropped since the vast majority of instructions are given by the MVAr output method.

## Context & Objectives

- ◆ The ability to rely upon Target Voltage instruction would be important in certain “High Impact Low Probability“ contingency circumstances
- ◆ Following the support of GCRP panel members in Autumn 2008, NGET commenced a programme of exercising the use of target voltage instructions to obtain assurance in its effectiveness.
- ◆ This presentation summarises the outcome of that exercise, the issues arising and the recommended way forward.

# Progress to date

- ◆ Since January 2009 the target voltage instruction exercises have been carried out with the co-operation of station staff at 26 generating stations.
- ◆ Most of the exercises have been successful
- ◆ A few issues have been identified to be progressed with the assistance of generating companies



# Outcome and Issues identified

**On the basis of these results NGET considers there is adequate assurance in the effectiveness of target voltage instructions for contingency circumstances**

- ◆ Provided the instructions continue to be exercised periodically
- ◆ Provided station specific issues are addressed as they arise

## **Main issues identified from Unsuccessful exercises at 6 stations**

- ◆ Lack of familiarity with NGET's objectives
- ◆ High reactive output possibly due to changing voltage by adjusting excitation rather than tapping the generator transformer
- ◆ Circulating MVArS at the same Station
- ◆ Metering issues

# The way forward

## **NGET embed an ongoing target voltage instruction exercise process by:**

- ◆ Involving all ENCC Control Room shift teams
- ◆ Including all generators
- ◆ Working with individual stations to resolve any issues identified
  - Follow up mechanisms:
  - Periodic operational liaison meetings between NGET & Gencos,
  - Liaison through NGET Generator Dynamic Performance team
  - Liaison through NGET Contracts Account Managers
- ◆ Ensure that voltage metering is adequate for despatch.

**Continued support is sought from power station operators**