

## **Grid Code Review Panel**

### **Harmonics**

#### **Background**

Paper number pp09/33 was presented to the September GCRP and identified that National Grid was giving further consideration to whether provisions should be included within the Grid Code relating to the allocation of rights to emit harmonic pollution.

This paper describes the outcome of National Grid's consideration of this issue.

#### **Current position**

- The Grid Code references Engineering Recommendation G5/4 for the management of harmonic emissions
- Headroom to emit harmonics is allocated on a first come first served basis. This means that later connectees may have less freedom to emit harmonics resulting the requirement to install mitigation
- On occasion, users' investment decisions on mitigation cannot be taken at the most efficient time
- National Grid believes that a review of the processes used in analysing and allocating harmonic emissions is required. This is particularly important given the expected increase in the number of windfarms connecting to the transmission system and the potential for the incorporation of HVDC.
- Engineering Recommendation G5/4 falls under the ownership of the Energy Networks Association (ENA)
- In 2008, the ENA Engineering Committee agreed to establish a permanent co-ordination committee (Power Quality Electro-magnetic Compatibility, PQ/EMC) to look at all issues relating to power quality
- To National Grid's knowledge, the PQ/EMC co-ordination committee has yet to meet.

#### **Recommendation**

National Grid believes that it is appropriate that the ENA governance structures be used to undertake a review of G5/4 within the PQ/EMC co-ordination committee.

The GCRP is asked to support the requirement for a review, and to write to the ENA explaining this, and requesting that the PQ/EMC co-ordination committee is taken forward.

If this option is not successful, then consideration could be given to the adoption of IEC standards to manage this issue.