

## **Distribution Code Review Panel**

**Meeting 64 – 8 June 2017**

### **Low Frequency Relays and Grid Code OC6**

#### **Paper by Code Administrator**

This paper sets out proposals for the requirement for reverse power flow blocking to be fitted to Low Frequency (LF) relays. LF relays are required by National Grid as System Operator under Grid Code OC6. The settings and characteristics of these were last changed in Distribution Price Control Review 5 due to changing system inertia and related factors.

However since then the mix and volume of Distribution Generation has changed significantly resulting in a situation where some groups fitted with LF relays are net exporters at certain times on the load curve and not at other times.

Whilst DNOs can adjust for this to some extent by changing which groups are tripped to satisfy OC6 it is probably, and certainly possible that the situation can change quickly and is easily influenced by even a single connection. It can also change due to say a large storage installation changing its operating regime due to commercial factors.

This problem could be resolved in a number of ways such as fitting reverse power blocking to existing relays or relocating relays further down the system onto demand dominated feeders. Or of course there are more sophisticated solutions such as automated dynamic settings.

It is proposed that the DCode Code Administrator write to the Grid Code Code Administrator to ask for this problem to be considered and possibly raised at the Grid Code Development Forum. What is expected to emerge is probably a modification to OC6 or at least a clarification on what it means in real time. This may or may not drive DNO intervention investment but this is not clear at this point. There has been some discussion of this being under the scope of the TDI group but this may not be appropriate as this isn't a DSO issue, rather an existing SO DNO obligation.

#### **Panel Recommendation**

The Panel are requested to note the issue and agree to the proposed course of action in particularly agree to a request that the GCRP consider this issues and provide guidance - possibly via a joint DC/GC working group.