Dear manufacturing stakeholder of the GB power industry

Open Letter to Manufacturers of Inverters for the GB Power Industry – particular for solar and wind farms, and battery installations etc

You will probably be aware of the work of the DC0079 Distribution Code working group that has recommended amendments to the loss of mains (LoM) settings on generation in GB. In summary these are to remove vector shift (VS) as an allowable LoM technique, and also to change any rate of frequency protection (RoCoF) settings to new less sensitive values.

The recommendations form the DC0079 working group were based on assumptions and laboratory tests on a number of relays where it appeared that (a) the inverters did not explicitly rely on RoCoF or VS techniques, (b) had no settable settings for LoM and (c) were relatively immune to RoCoF and VS disturbances which were presenting the risks for LoM using the old settings. Consequently the assumptions to date have been that inverters themselves required little or no intervention.

However feedback received suggests that significant numbers of inverters do have discrete settings (whether available to the users, or only to the manufacturer or manufacturer's agent etc). Clearly resetting a protection relay at a site boundary will not have the desired effect if there are equivalent settings in inverters which are also not reset to the new requirements.

To help the network licensees further plan the implementation of the DC0079 recommendations we would like to hear from inverter manufacturers in particular about how they have implemented LoM protection in their devices, and particularly

- How many devices and of what size/rating have been sold into the GB market?
- What is the range of sizes?
- What is the range of size/capacity of installation (ie power station), if known?
- Whether these designs comprise central inverters, inverters dispersed along strings?
- What settings are included as factory defaults? Specifically do these include either or both RoCoF and VS settings, and what are the default values used?
- Your view on how the new settings can be applied quickly and easily to units that are commissioned in the field.

Any information addressing these bullets, even if partial, would be very welcome. And please do comment on any other issues you believe to be relevant.

A response by 24 June would be very helpful. And please state if you need your response to be kept confidential to just the network licensees.