

## Franklin Rodrick

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Dear Industry Colleagues,

This letter seeks to give clarification on the Zero-Miss issue raised by DONG Energy at the August 2015 Grid Code Development Forum.

## **Background**

Zero-Miss is a phenomenon that occurs during simultaneous energisation of inductive and capacitive equipment, particularly therefore impacting plant such as windfarms and/or HVDC links in the event that energisation of the cable/harmonic filter and a reactor occurs simultaneously.

As mentioned at the GCDF in August, the plant will need to meet the full requirements of the Grid Code. In addressing the zero miss issue it will need to ensure that voltage step change is limited to the values specified in CC.6.1.7. It was also noted that when any offshore cables are energised, there is a likelihood that the Reactive Range requirements (specified under CC.6.3.2) when operating below 20% of the Interface Point Capacity would be breached until the associated reactor is switched into service which it is expected would take place some 30 seconds after initial energisation of the offshore cables. It is anticipated that such events would only occur a few times during the lifetime of the project and are associated with commissioning or return to service following an outage rather than being associated with normal operation.

## Resolution

In summary we do not believe this issue causes a current conflict with the Grid Code as the Transmission Plant or Generator Plant will not be fully in service. We also do not believe it is necessary to update the "Guidance Notes for Generators" but we are happy to formally clarify our position on this issue which would be picked up as part of the compliance process. It is however worth reiterating that during energisation or re-energisation of the Offshore Transmission Assets following an outage, notification and agreement would need to be sought with NGET acting in its role as System Operator which is already subject to existing Grid Code provisions.

In other words, we are happy to permit the energisation of the Offshore Transmission Plant in the way that was proposed subject to notification and agreement of the System Operator.

If you wish to discuss any aspect of this letter, please do not hesitate to contact me.

Yours Sincerely

Franklin Rodrick Commercial Analyst