Q. Further to PUB-NLH-268 please explain what steps will be taken to minimise the mutual induction between the ac and the dc lines.

A. Where an HVdc transmission line and a parallel ac transmission line are in close proximity to each other, they will influence each other through both electrostatic and electromagnetic coupling.

The Lower Churchill Project commissioned an initial review to identify potential impacts related to HVdc and ac lines in close proximity. Field and corona effects, along with steady state coupling were considered in this report. This review identified a minimum centre to centre separation of 37.5 metres between the HVdc and ac transmission line.

A further study was undertaken with the final line route and right of way separation (50 metre centre to centre) to identify any performance issues pertaining to the HVdc and ac lines running parallel to each other in close proximity. The adequacy of the separation between the HVdc and ac transmission lines was confirmed.

The final line routing, parallel line information, along with the study results have been provided to the HVdc system vendor, who will incorporate the results into the final design for the HVdc system, and particularly the converter transformers.