Q. Please provide the thermal design parameters (ambient temperature range, and ground thermal resistivity) for the following marine crossing segments:

i. land installations

ii. HDD installations where the cables are in a tube

iii. Sea bed installation with rock berm.

For each of these three installations, also provide the cable burial depth and separation details.

A. The required specifications for the land installations will be established by the cable provider, and an appropriately designed backfill or chaseway will be designed during detailed engineering to meet the cable thermal specifications.

For the HDD portions, geotechnical investigations for the area indicate the HDD portion will be run through dolomite/limestone. The thermal resistivity to be used for design would be 0.5 K-m/W. Ambient temperature for design is 8 degrees centigrade. 20 m cable spacing has been established for underwater portions of the borehole, and 35 m for the air filled portions. Burial depth is expected to be up to 40 m below seabed.

For the subsea portions, the cables are assumed to be placed on the seabed and buried under a sediment impregnated rock berm of 1 m height. The design thermal resistivity is 0.8 K-m/W, and the maximum seabed temperature is 11 degrees centigrade. Cable spacing will be greater than 10 m.

All these parameters will be confirmed during detailed engineering.