3.5.3.5. Whilst some types of cable contain liquid oil for electrical insulation, XLPE cables contain no oil. The benefit of this is that if a cable is ruptured for some reason, no liquids or gases will be released into the environment.

3.5.3.6. The Marine Cables are designed, manufactured and installed for a minimum service life of 40 years.

Fibre Optic Cable (FOC)

3.5.3.7. In addition to the four Marine Cables, two FOCs, each 35-55 mm in diameter will be laid together with the Marine Cables within a shared trench (one FOC per HVDC Circuit). Each FOC will include fibres for a Distributed Temperature Sensing ('DTS') system as well as protection, control and communications.

3.5.3.8. Plate 3.3 illustrates the configuration of the Marine Cable showing one of the HVDC Circuits (comprising two Marine Cables) and an FOC. There will be two of these HVDC circuits installed.

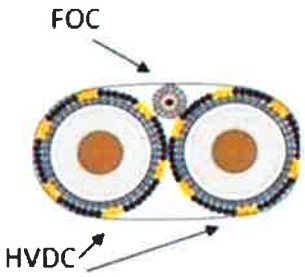

Plate 3.3 - Configuration of the HVDC Cables and FOC within the cable trench. Plate illustrates one HVDC Circuit (not to scale).

3.5.4. MARINE SURVEYS

3.5.4.1. Marine surveys have been undertaken in order to define the Marine Cable Corridor, target burial depths, cable installation techniques and the requirements for cable and scour protection. Marine surveys include benthic ecology, geophysical and geotechnical surveys.

3.5.4.2. The surveys listed above enable the identification of the following along the Marine Cable Corridor:

- Sediment types (surface and shallow geology);
- Marine benthic species and habitats;
- Sediment particle sizes and quality;
- Bathymetry and slopes;
- Seabed features (e.g. mobile sediments (sand waves and large ripples), boulders);