

Jicable HVDC'16 Workshop Topic 2

HVDC Cable Systems

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Topic 2: Very high DC voltage: 500 kV extruded power insulated cables

Background: 525 kV extruded cables are being considered as an option on the planned 1,4 GW HVDC interconnector between Denmark and the UK (called Viking Link).

Key questions/issues: A couple of questions/issues are important for the choice of cable technology (MIND or extruded?):

- Are the pre-qualification and type tests requirements for extruded DC cables rated at 525 kV sufficient to ensure 40 years of successful operation?
- Can and should more testing be required?
- The cable manufactures have a different approach to testing of DC cables. Some manufactures considers the pre-qualification test as most important to ensure a reliable cable system design. Other manufactures consider type testing as more important to ensure a reliable cable system design. What approach is right?
- No transition joint between extruded cables from different manufactures or between MIND cables and extruded cables have been designed and tested