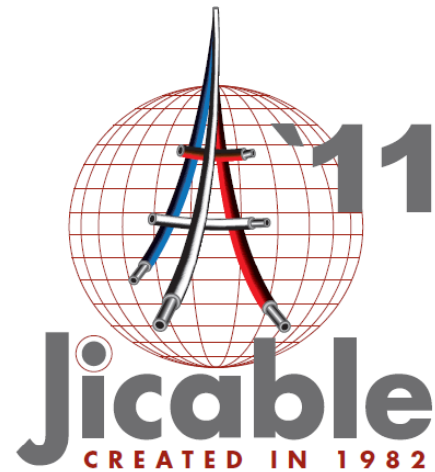


Rte

Réseau de transport d'électricité



HVDC underground links

HVDC underground links for interconnections

□ France – Spain

- INELFE (RTE / REE)
- 2x1000 MW, 320 kV, XLPE, 2 500 mm² Copper
- 2 bipoles
- 65 km including 8,5 km in dedicated tunnel
- VSC
- Commissioning date : 2014

□ Savoie – Piemont

- RTE / TERNA
- 1200 MW
- 320 kV, XLPE
- 2 bipoles
- 190km
- VSC
- Commissioning date : 2017

□ Today industrial offer for extruded HVDC cables and VSC
320 kV ; 1000 MW per bipole

□ Further development : needs for higher power extruded HVDC cables
higher voltage DC cable (cf. session A.2)

How to operate an hybrid DC / AC grid ?

- ❑ Equipment needs are (and will be) fulfilled to build new HVDC UG lines
- ❑ The operation of an hybrid DC / AC grid requires specific electrical transient studies
- ❑ RTE has decided to build a Real Time Simulation Platform :
 - to assess operation conditions and to maintain the AC/DC converter stations
 - to have the capability to simulate the behaviour of new DC links interacting with the AC grid (and other DC links).