Current installations of HVDC Cable links Australia & New Zealand and NEXANS view of issues & future trends for HVDC Cable links

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Current Installations

Project	Year	Route length Km	Number of cables	Rating MW	Type of Con-version
New Zealand inter-connection South - North	1965 & 1990	40	2 +1 250 kV	600-700	LCC
Direct link NSW - QLD	April 2000	65	6 x 84kV	180	VSC
Murray Link VIC - SA	Oct 2002	176	2 x 150kV	220	VSC
Bass Link VIC - TAS	2006	272	1+1 400kV	500 - 630	LCC

Future Trends in DC

- **SHORTER LEAD times for building new TRANSMISSION links.**
- **More concern about losses**
- **SIGNIFICANT GROWTH in DEMAND for AC & DC cable links**
- **Increase of voltage and power**
- **AC cheaper than DC for shorter length**
- **DC provides more flexibility for networks**

320kV HVDC extruded cable system

Typical range of application

- **For Long Submarine links MIND (Mass impregnated Non Draining) insulation is still the most suitable and economic.**
- **For land based links DC XLPE cable.**
- **For high power to transmit over shorter length, land HVDC superconductive cable**