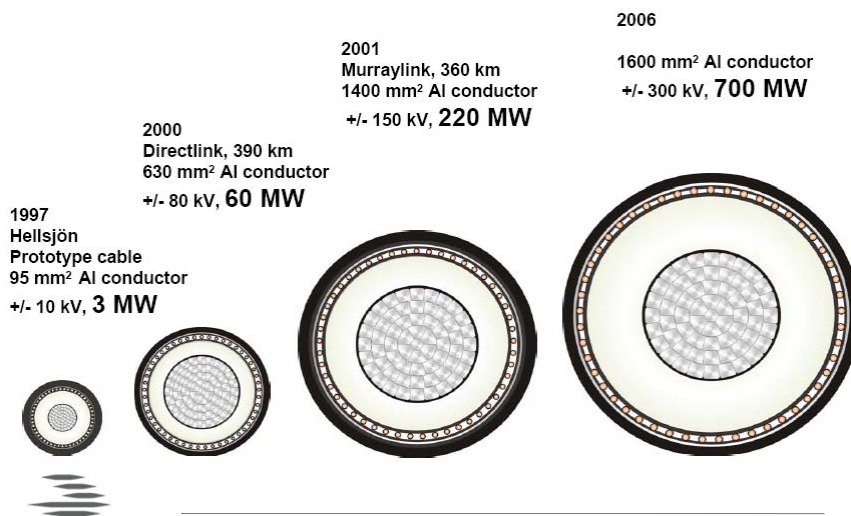


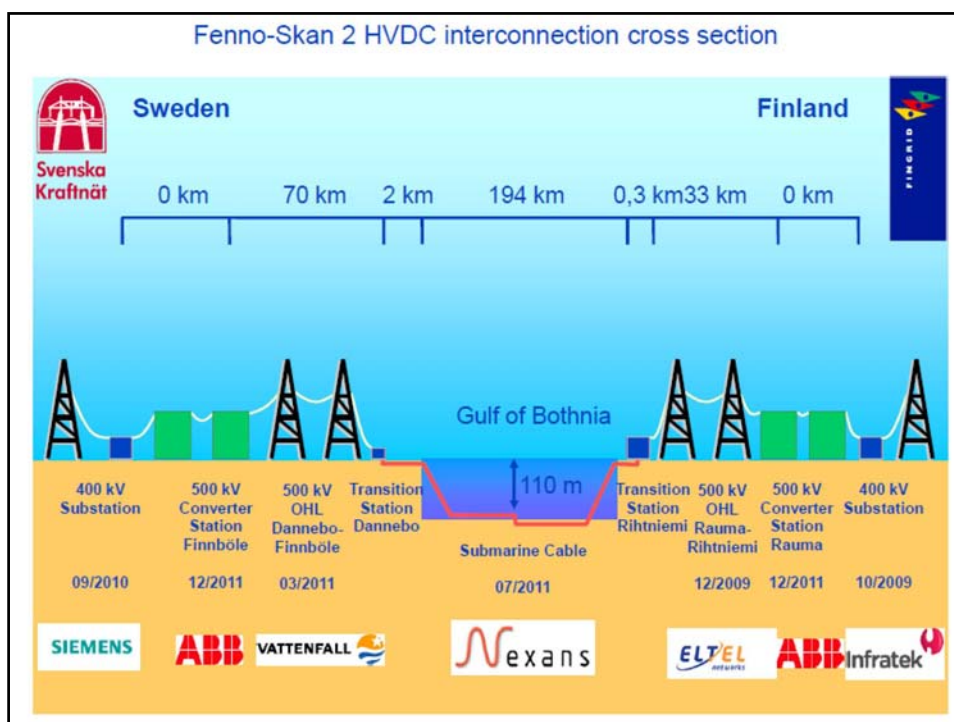
# Teknik i likströmsförbindelser 2012

Presentation vid Telestörningsnämndens möte den 10 oktober 2012

 SVENSKA  
KRAFTNÄT

## HVDC cables from ABB





## Jämförelse teknik

### Classic vs Light Summary

	Classic (LCC)	Light (VSC)
Semiconductor (control)	Thyristor (on only)	IGBT (on & off control)
Power control	Active	Active and reactive
Filters	Yes	No
Losses	~ 0,7 %	< 1 %
Rating	± 800 kV, 8000 MW	± 320 kV, ~ 1000 MW
Foot-print	100 %	50 %
SC ratio	> 2	-

# FS2 Electrode replacement in Lautakari, 2009

