



STUDY COMMITTEE B4

Terms of reference of a new WG

Group No : B4 - 44	Name of Convener : Kirsten Faugstad
TITLE of the Group : Planning Guidelines Dealing with HVDC Environmental Issues	
Scope, deliverables and proposed time schedule of the Group :	
1. Scope of Work	
Item 1. Collect and systemize information from planned and existing HVDC links in operation on the following main issues:	
<ul style="list-style-type: none">• Main licensing concern vs environmental issues• Environmental issues leading to change of technical concept• Environmental experience• Environmental monitoring programs	
Item 2 Create an environmental database on HVDC Environmental issues	
Item 3. Propose guidelines on how to deal with environmental issues during planning and operation of new HVDC links.	
2. Objective	
More than earlier, it has been seen strong correlation between good environmental understanding during project planning and realization of new HVDC projects.	
A main challenge is to handle the public awareness. Monopolar HVDC links exists and operate without negative effects. Still there are uncertainties and authorities and others are worried.	
An overview of world-wide experience and guidelines in handling of environmental issues would be beneficial for future planning and operation of HVDC links.	
3. Present State of the Art	
The following items are identified as main environmental issues:	

1. Converter station and FACTS:
Audible noise and visual impact
2. Electrodes:
Corrosion due to electric fields from electrodes (on third party property, pipelines etc)
Chlorine emission from the anode and its impact on marine life
3. HVDC cable:
Magnetic and electric fields
Impact on magnetic compass deviation
Impact on marine life

4. *Target Group*

Primary target group: Technical Groups

Secondary target group: Top Management Executives and Decision Makers

5. *Time schedule*

January 2005:	WG start
January 2006:	Item 1 information collection finalised
June 2006:	Item 2 environmental database established
January 2007:	Item 3 Guidelines on how to deal with environmental issues during planning of new HVDC links established
June 2007:	Final report finalised and WG work completed

6. Possible Members of WG:

Proposed convener: Kirsten Faugstad, Statnett Norway. Experience from HVDC project planning, electrodes, environmental issues in the HVDC projects Skagerrak, Viking Cable, EuroKabel, NorNed kabel, Basslink. Earlier member of WG 14.21 Electrodes.

- * Mohammed Zavahir, New Zealand
- * Mohammed Rashwan, Canada
- * Clement Harvey, Northern Ireland EI. (Project manager Moyle)
- * Maurice Smith, Moyle Interconnector Ltd (Maintenance Manager)
- * John McNichol, Manitoba Hydro, Canada
- * Jan Lykkegaard, Denmark (Eltra – earlier secretary of WG 14.21 Electrodes)
- * David Balloch, NSR Environmental Consultant, Australia (handled impact on marine life for Basslink)

Co-ordination with SC's:

C3 System Environmental Performance – on related environmental issues. Contact established with convener J.N. Baptista.

B2 Overhead Lines / **B1** Insulated Cables – on items cable vs overhead lines

Papers to be issued : Technical Brochure and Electra paper

Approval by TC Chairman : Aldo Bolza

Date : December 23, 2004