



## Workshop "HVDC TOWARDS THE FUTURE"

ETSEIB. Escola Tècnica Superior d'Enginyeria Industrial de Barcelona,  
Universitat Politècnica de Catalunya.  
UPC BarcelonaTech, Avda. Diagonal 647, Barcelona  
Aula Schneider, 2<sup>nd</sup> floor



The workshop will focus on the developments related to High Voltage DC Transmission for offshore wind power. The different concepts of modern wind power plants will be presented, including modular generators and power electronic converters. Advanced control approaches for wind power integration into the electrical grid will be also discussed.

### Barcelona, Thursday 24<sup>th</sup> April 2014

|       |  |
|-------|--|
| 9h00  | Welcome and registration   |
| 9h15  | Rationale for DC and offshore grids 1                                  |
| 9h15  | Oriol Gomis – <i>Introduction.</i>                                     |
| 9h50  | Eduardo Prieto – <i>Modular generators for offshore wind turbines.</i> |
| 10h25 | Kevin Schönleber – <i>DC collector array for offshore wind.</i>        |
| 11h00 | Coffee Break   |
| 11h30 | HVDC Converter Technologies  |
| 11h30 | Abel Ferreira – <i>VSC -HVDC: state of the art.</i>                    |
| 12h15 | Joan Sau – <i>Current source converters for HVDC applications.</i>     |
| 12h45 | Lunch  |
| 14h30 | Technical Visit  |

### Barcelona, Friday 25<sup>th</sup> April 2014

|       |  |
|-------|--|
| 9h30  | DC Grid Control  |
| 9h30  | Agustí Egea – <i>Overview of DC grids control.</i>   |
| 10h30 | Coffee Break   |
| 11h00 | Muhammad Raza – <i>Network configuration and topologies for multi-terminal VSC HVDC transmission system.</i>                           |
| 11h25 | Zahra Solhjokhah – <i>Multi-Terminal HVDC transmission system supplying a passive load.</i>  |
| 11h50 | Mònica Aragüés – <i>Droop control for loss minimization in HVDC multi-terminal transmission systems for large offshore wind farms.</i> |
| 12h30 | Lunch  |
| 14h00 | CITCEA's Group   |
| 14h00 | Daniel Montesinos – <i>CITCEA-UPC Group</i>  |
| 14h30 | Daniel Heredero – <i>Control algorithms implementation for AC/DC micro-grid</i>  |
| 15h00 | CITCEA's Visit   |
| 17h00 | Closure  |

Organizing committee

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