

Grid Code Review Panel

EWIS / EWEA Work on Integration of Wind Generation
Background Slides

30 September 2008

nationalgrid

The power of action.™

Overview of EWIS

History

- ◆ EWIS Phase 1 was initiated as an initiative of 15 European Electricity Transmission System Operators to study the impact of additional Wind Generations on EHV Transmission System flows across Europe
 - First Phase Report published in Jan 2007
- ◆ EWIS Phase 2 commenced in June 2007 its high level objective being to set up a model for the integration of Renewable Energy Sources on the large scale expected across Europe
- ◆ Examining Issues across the 4 Synchronous Areas within Europe
 - NORDEL (Norway, Sweden, Finland)
 - UTCE
 - UKTSOA (Great Britain)
 - ATSOI (Northern Ireland and the Republic of Ireland)
- ◆ Work being taken forward through 6 Working Groups

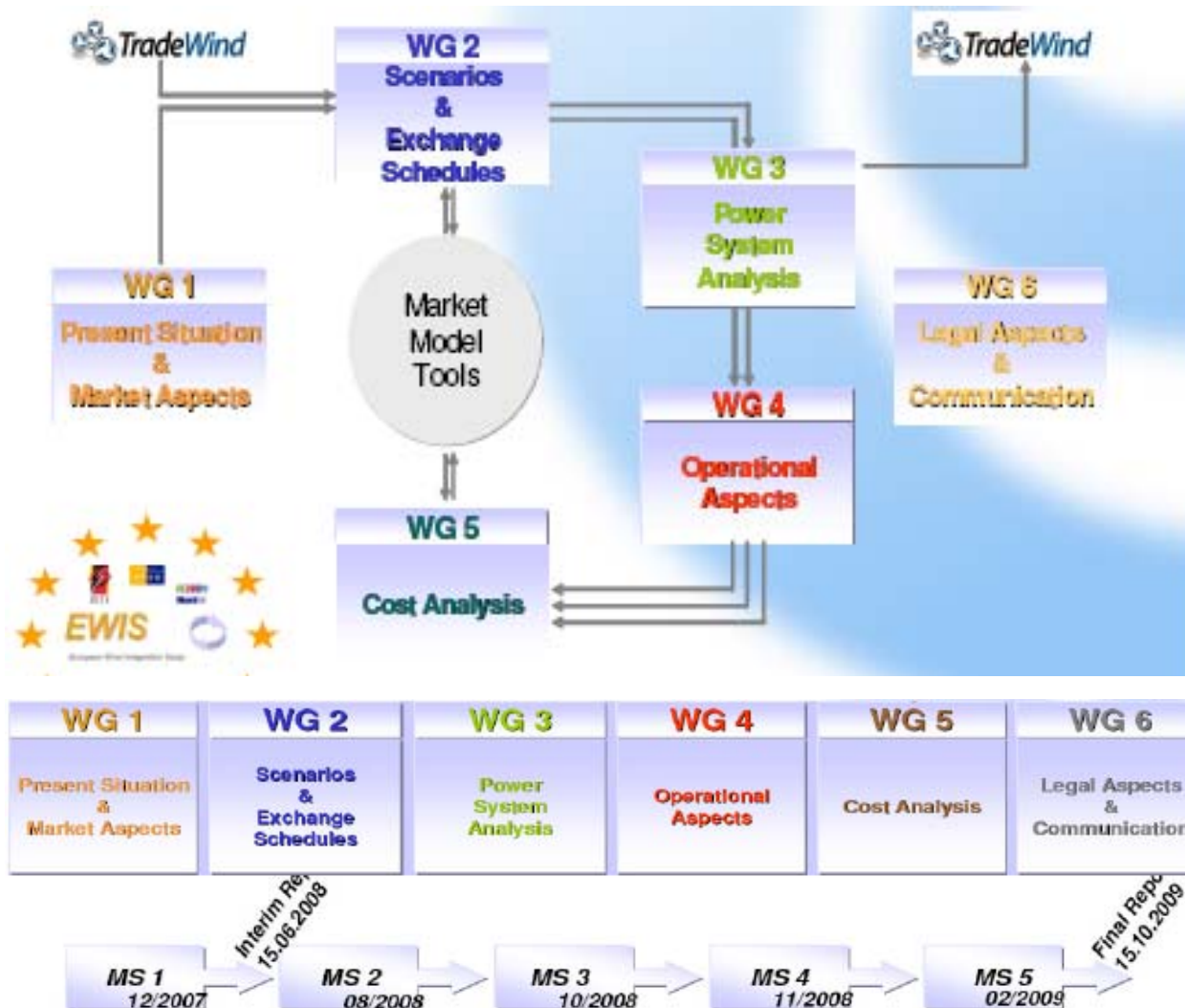
EWIS Work to Date

Working Groups

- ◆ There are 6 Working Groups constituted under the EWIS banner
 - WG1: Present Situation and Market Aspects
 - To gather information on current networks, users etc to form basis of studies examining future scenarios
 - WG2: Scenarios and Exchange Schedules
 - Undertaking detailed technical and economic analysis
 - WG3: Power System Analysis
 - Examining through studies potential overloads of circuits, quality of supply issues, resilience of the networks through normal and emergency circumstances
 - WG4: Operational Aspects
 - Ensure that current operational systems are adequate to deal with large volumes of intermittent generation
 - WG5: Cost Analysis
 - Examining the future costs of network construction, connection and operation of the European System with large volumes of wind power
 - WG6: Communications and Legal Aspects
 - Ensure that the recommendations of EWIS are consistent with the varying legal requirements across member states

EWIS Work to Date

Working Groups



Tradewind/EWEA Work

Background

- ◆ Alongside the EWIS Study, Tradewind/EWEA is also examining the integration of wind generation across Europe
- ◆ Tradewind project similar to EWIS led by Wind Developers
- ◆ In 2005 Tradewind/EWEA published a report¹ and then in 2006 announced it was taking forward further work in the following areas:
 - European Grid Code Developments
 - Grid Infrastructure Upgrade
 - European Electricity market (Regulation & Legislation)
 - System Integration Studies
- ◆ Position Paper published on European Grid Code Developments in February 2008
- ◆ EWEA contributing to EWIS Study in the area of System Integration Studies

¹ http://www.ewea.org/fileadmin/ewea_documents/documents/publications/grid/051215_Grid_report.pdf

Way Forward

EWIS

- ♦ EWIS continues to progress its work through its Working Groups
 - Next Meeting of all WGs 13-14 October 2008 (Denmark)
- ♦ Final Report anticipated in October 2009

Tradewind/EWEA

- ♦ EWEA report on European Grid Code harmonisation likely to be discussed further within Europe
 - Way forward possibly that EWIS will be asked to look at the issues raised by the EWEA paper

Other Developments

- ♦ 36 European ETSOs (representing 31 countries) have signed a statement of intent to form ENTSO-E
- ♦ ENTSO-E would be a EU wide organisation that would develop a more integrated electricity transmission regime – including potential harmonisation of Codes