EWEA2011
ORECCA Workshop
EU-funded activities
Research in Wind Energy

European Commission
DG Research & Innovation
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New and Renewable Energy Sources
Energy: A complex Policy Jigsaw

- Targets
- Internal Market
- Technology
- SET-Plan

- Taxation
- External Energy Policy
- Development Policy
- Global Cap & Trade
- State Aid
- Competition

16/03/2011
The Strategic Energy Technology (SET) Plan

- Joint strategic planning / New governance / Information System (SETIS)
- Three main pillars for implementation:
  - European Industrial Initiatives (EIIs)
  - European Energy Research Alliance (EERA)
  - Trans-European Energy Networks and Systems (transition planning)
- Increase resources, both financial and human
- Reinforce international cooperation
Wind/Marine Renewables

- Many marine renewable projects already supported in previous FPs, both for wind and ocean energies.
- Special effort on Offshore Wind is included in the European Wind Industrial Initiative
- EERA - Wind is already operational
- EERA – Ocean is being considered
- One FP6 (UPWIND) and eight FP7 wind projects (DG RTD) are presented here after
- Ocean energy projects (CORES, EQUIMAR) are also funded under FP7
- DG ENER also supports several wind & ocean projects
Workshop EWEA2011 - Wed. 16th 9:00 - 13:00

UPWIND

- Integrated Wind Turbine Design
- Coordinator: DTU/RISOE (DK)
- Towards the large wind turbines of tomorrow
- FP6 Integrated Project.
- Contract number: 019945
- 60 months – March 2006 to February 2011 (Finished)
- 45 partners from 14 different countries
- Total budget: 22,618,628 €
- Max. EC contribution: 14,566,628 €
- Website: www.upwind.eu
**PROTEST**

- **PROcedures for TESTing and measuring wind energy systems**
- **Coordinator**: ECN (NL)
- **Pre-Standardisation R&D for Wind Energy Systems**
  - Collaborative Project.
  - Grant agreement number: 212825
  - 30 months – March 2008 to August 2010 (Finished)
  - 7 partners from 4 different countries
  - Total budget: 2,675,619 €
  - Max. EC contribution: 1,980,119 €
Reliability focused research on optimizing Wind Energy systems design, operation and maintenance: Tools, proof of concepts, guidelines & methodologies for a new generation.

Coordinator: GAMESA (Spain)

- Design for Reliability of Wind Turbines
- Collaborative Project.
- Grant agreement number: 212966
- 36 months – March 2008 to March 2011 (Finished)
- 10 partners from 7 different countries
- Total budget: 7,766,181 €
- Max. EC contribution: 5,180,767 €
- Website: www.reliawind.eu
SAFEWIND

- Multi-scale data assimilation, advanced wind modelling and forecasting with emphasis to extreme weather situations for a safe large-scale wind power integration
- Coordinator: ARMINES (FR)
  - Wind Forecasting – Extreme conditions
  - Collaborative Project.
  - Grant agreement number: 213740
  - 48 months – Sept 2008 to Aug 2012
  - 20 partners from 6 different countries
  - Total budget: 5,581,859 €
  - Max. EC contribution: 3,992,400 €
  - Website: www.safewind.eu
MARINA Platform

- Multipurpose floating platform
- Potential combination wind-ocean energy
- Coordinator: Acciona Energia S.A.
  - MArine Renewable INtegrated Application Platform
  - Collaborative Project
  - Grant agreement number: 241402
  - 54 months – January 2010 to June 2014
  - 17 partners from 12 different countries
  - Total budget: 12,761,220€
  - Max. EC contribution: 8,708,660€
  - Website: www.marina-platform.info
Coordinated Action
Knowledge sharing on offshore renewable energy conversion platforms
Coordinator: Fraunhofer - IWES

Off-shore Renewable Energy Conversion platforms
- Grant agreement number: 241421
- 18 months – March 2010 to August 2011
- 28 partners from 11 different countries
- Total budget: 1,797,870 €
- Max. EC contribution: 1,599,032 €
- Website: www.orecca.eu

Website: www.orecca.eu
**DEEPWIND**

- **FET- Collaborative**
- **Future Deep Sea Wind Turbine Technologies**
- **Coordinator : DTU-RISOE (DK)**
  - Vertical Axis Floating Wind Turbine
  - Grant agreement number: 256769
  - 48 months – October 2010 to September 2014
  - 12 partners from 6 different countries
  - Total budget: 4,178,234 €
  - Max. EC contribution: 2,992,438 €
  - Website: www.deepwind.eu
HAWE

- **FET- Collaborative**
- **High Altitude Wind Energy**
- **Coordinator: OMNIDEA (PT)**
  - High Altitude Wind Energy conversion
  - Grant agreement number: 256714
  - 42 months – October 2010 to March 2014
  - 7 partners from 5 different countries
  - Total budget: 2,996,894 €
  - Max. EC contribution: 1,920,470 €
  - Website: http://www.omnidea.net/hawe
HiPRwind

- Large-Scale Collaborative
- High Power, high Reliability offshore wind technology
- Coordinator: FhG-IWES (DE)
  - Floating wind energy system
  - Grant agreement number: 256812
  - 60 months – November 2010 to October 2015
  - 19 partners from 9 different countries
  - Total budget: 19,831,585 €
  - Max. EC contribution: 11,021,621 €
  - Website: www.hiprwind.eu
Single Project: «’Twenties » (FP7)

Consortium and budget

- United Kingdom (2)
  - AREVA T&D
  - UNIVERSITY OF STRATHCLYDE

- Ireland
  - UCD

- Portugal
  - INESC-PORTO

- Spain (5)
  - RED ELECTRICA DE ESPAÑA
  - IBERDROLA RENOVABLES
  - ITT COMILLAS
  - GAMESA
  - ABB S.A.

- France (2)
  - RTE
  - EDF

- Norway
  - SINTEF

- Denmark (3)
  - DONG ENERGY
  - ENERGINET
  - RISO DTU

- Germany (3)
  - Fraunhofer IWES
  - 50 Hz
  - SIEMENS Wind Power

- Belgium (6)
  - ELIA System Operator
  - EWEA
  - CORESO
  - UNIVERSITY LIEGE
  - UNIVERSITY LEUVEN-LECTA
  - UNIVERSITE LIBRE BRUXELLES

- Italy
  - ERSE

10 European Member States
1 Associated Country

Total budget: 56,8 M€
EU contribution: 31,8 M€

- Grid integration of offshore wind energy (315 M €)
- New turbines, structures, components, optimisation of manufacturing (250 M €)

TOTAL: 565 M€
Bard Project
● **Topic 2.3.2: Design tools for Offshore Wind farm clusters ENERGY-2011-1**

- Spatial modelling
- Interconnection Optimisation
- Energy yield prediction
  - **Collaborative Project**
  - **Max EU contribution: EUR 5 000 000**
  - **Up to two projects may be funded.**
Topic 2.3.1: Demonstration of innovative off-shore wind electricity generation structures (ENERGY-2011-2)

- Innovative floating structures (deep water)
- Integration of Multi-MW wind energy converters
- Access, safety, logistics, operation and maintenance, ...
  - Collaborative Project with predominant demonstration
  - Up to two projects may be funded.
OCEAN - 2011

- **Topic 1: Multi-use Offshore Platforms**
- Combination wind-ocean energy with Transport & Aquaculture
  - Collaborative Project
  - Max EU contribution: EUR 14 000 000 (EUR 4 000 000 from Energy)
  - Up to three projects may be funded
OCEAN - 2011

Topic 4: « Knowledge-base... with assessment of wind energy potential in the Mediterranean and the Black Sea »

- SICA Collaborative Project
- Max EU contribution: EUR 9 000 000 (EUR 1 000 000 from Energy)
- Up to one project may be funded.
Energy – Staying informed

Energy Research web site and Energy Helpdesk
http://ec.europa.eu/research/energy/index_en.cfm
rtd-energy@ec.europa.eu

Energy Policy
http://ec.europa.eu/comm/energy/index_en.html

Seventh Framework Programme
http://cordis.europa.eu/fp7/

Calls for proposals