

Overview of main existing EU activities relevant to offshore wind energy

Below is set out a brief, non-exhaustive overview of actions already undertaken or planned at EU level with (potential) relevance for offshore wind energy.

1. Directives to promote electricity production from renewable energy

Directive 2001/77/EC, adopted in 2001, aims to promote electricity from renewable energy sources in the internal market. In addition to setting national indicative targets for the share of renewable electricity in total electricity consumption by 2010, the Directive includes provisions aimed at reducing or removing administrative and grid barriers. Firstly, the Directive requires Member States to evaluate rules and regulations relating to the authorisation of the construction and operation of a renewable electricity plant, with a view to simplifying these procedures (Article 6). Secondly, the directive requires that renewable electricity is guaranteed access to the electricity grid, and if necessary, given priority access. In addition, Member States must put in place objective, non-discriminatory and transparent rules on the sharing and bearing of costs for grid infrastructure investments.

The **new directive proposal on the promotion of energy from renewable energy sources**, adopted in January 2008, also aims to remove unnecessary barriers to the growth of renewable energy. The proposal includes, amongst others, a more binding requirement on priority access of renewable electricity to the grid, and binding national targets for renewable energy. The directive proposal also includes strengthened provisions designed to reduce administrative barriers, and to put in place planning mechanisms and improve the transparency of consenting procedures for building and operating renewable energy plants.

2. Internal electricity market

To make the internal market work for all consumers whether large or small, and to help the EU achieve more secure, competitive and sustainable energy, the Commission proposed in September 2007, in its [3rd liberalisation package](#), a number of measures to complement the existing rules. In relation to the need to develop grid infrastructure necessary for incorporating large scale offshore wind energy into the European electricity market, the most relevant measures in this package are:

- A proposal for stronger **unbundling** of the transmission system from generation activities
- the establishment of an independent **mechanism for cooperation among national regulators**;
- the creation of a **mechanism for transmission system operators to improve the coordination** of cross-border trade, networks operation and grid security.

3. Trans-European Energy Networks (TEN-E) & coordination of offshore grids

The Commission's Communication on the **Priority Interconnection Plan** ([COM\(2006\)846 final](#)), adopted by the Commission in January 2007, identifies key interconnection projects which are vital to completing the internal market, to integrating generation from renewable

energy sources into the market and to significantly improve security of supply, and projects where facts are known which may lead to delays in implementation.

As a follow-up to the Priority Interconnection Plan, the Commission has appointed EU Coordinators to promote the European dimension of these project and initiate a cross-border dialogue between promoters, the public and the private sector as well as local and regional Authorities and the local population.

A **European Coordinator**, Mr Georg Wilhelm Adamowitsch, has been appointed to oversee the completion of the offshore wind connections in the Baltic and North Sea areas (Denmark-Germany-Poland). The aim of the project is to facilitate the integration of the offshore wind energy produced in the Baltic Sea and North Sea in the continental grid. This project will be a major contribution to the development of a more environmentally sustainable network.

4. Technology, demonstration & research

The **Framework Programme for research and technological development** (FP)¹ is the European Union's chief instrument for funding research and innovation.

The objective of the European Technology Platform for Wind Energy (TP Wind)² is to identify areas for increased innovation, new and existing research and development tasks. These will then be prioritised on the basis of “*must haves*” versus “*nice to haves*,” the primary objective being overall (social, environmental and technological) cost reductions. This will help to achieve EU objectives in terms of renewable electricity production. The platform will develop coherent recommendations, detailing specific tasks, approaches, participants and the necessary infrastructure, in the context of private R&D, as well as EU and Member State Programmes, such as FP7. TP Wind will also assess the overall funding available to carry out this work, from public and private sources.

Six Working Groups of the Technology Platform are dealing both with onshore and offshore. There is one working group ([WG4: "Offshore Development & Operation"](#)) focused on offshore aspects not addressed by the other Working Groups.

Following the declaration of the European Policy Workshop on Offshore Wind Power Deployment (Berlin, 2007), WG4 was invited to provide a roadmap for a large-scale deployment of offshore wind energy, focusing on the relevant Research & Development topics. In the recent [updating of the TP Wind Strategic Research Agenda \(March 2008\)](#), the Offshore Working Group has identified the following key-priority areas: I) substructures II) assembly, installation and decommissioning III) electrical infrastructure IV) turbines V) operations and maintenance VI) safety, environment and education.

The **European Strategic Energy Technology Plan (SET-Plan)**³, adopted by the Commission in November 2007, proposes a new energy technology policy in Europe. In essence, it aims to accelerate the development of low carbon technology and bring it rapidly to the market.

¹ FP6 [2002-2006]: <http://cordis.europa.eu/fp6/dc/index.cfm?fuseaction=UserSite.FP6HomePage>

FP7 [2007-2013]: http://cordis.europa.eu/fp7/home_en.html

² <http://www.windplatform.eu/>

³ COM (2007) 723 final [Communication adopted by the Commission on 22/11/2007]

Wind energy development (incl. getting large scale offshore wind competitive within the short term) is one of the key-technological challenges addressed in the SET-Plan.

The two specific references to wind energy are the following:

- *"Key EU challenges to meet the 2020 targets: Double the output of the largest wind turbines, with offshore wind as the lead application;*
- *European Wind Initiative: focus on large turbines and large systems validation and demonstration (relevant to on and offshore applications)."*

In particular, the establishment of a European Industrial Initiative on wind energy would result from the achievement by the Wind Energy Technology Platform (TP Wind) of such an ambitious scale and scope that a substantial mobilisation of public and private resources to implement important key-actions of the Strategic Research Agenda is required.

The [Intelligent Energy Europe Programme \(IEE\)](#) is co-funding five projects aiming to support to different extents the uptake of offshore wind. IEE projects in this field are bringing together industry, policy makers, TSOs and regulators to:

- facilitate grid connection, integration and extension (e.g. IEE project Tradewind)
- address barriers related to permitting procedures, environmental concerns, conflicting marine uses and the trans-national component (e.g. IEE proposals Windspeed and Windbarriers both under negotiation)
- develop solutions to mitigate the shortage of skills in the area of installation, operation and maintenance (e.g. IEE project Windskill)

5. Integrated maritime policy

The Commission has put forward the main elements of a [new European integrated maritime policy](#), including its founding principles and main objectives, the required governance framework and appropriate tools for integrated policy⁴. The new integrated maritime policy will tackle all economic and sustainable development aspects of the oceans and seas, including the marine environment, in an overarching fashion.

The coordinated development of current sectoral policies, including energy policy, and the new integrated governance framework for maritime affairs requires cross-cutting tools to help policy makers and economic and environmental actors to join up their policies, interlink their activities and optimise the use of the marine and coastal space in an environmentally sustainable manner. These tools comprise the development of a more **integrated network of surveillance systems** in European waters, the development of **maritime spatial planning**, assisted by a road map drawn up by the Commission, and an **EU Marine Observation and Data Network** (EMODNET) to optimise and bring coherence to the current fragmented initiatives that gather data on oceans and seas.

As stressed by the wind energy sector the allocation of marine space for different and future possible uses is needed to help resolve conflicts, and to regulate the competing uses of the seas via a transparent decision making process. An integrated approach to maritime

⁴ COM(2007) 575 final

surveillance at EU level will help to monitor the different activities at sea including maritime safety issues, EMODNET aims to provide a sound data basis which is essential for appropriate site selection and the establishment of maritime spatial planning offers opportunities for rational and transparent decision making in licensing, promoting or placing restrictions on maritime activities⁵.

6. Economic and financial support

The **structural and cohesion funds**, such as the European Regional Development Fund (ERDF) and the European Cohesion Fund, are among the largest Community funding instruments. According to the [Community strategic guidelines on cohesion](#)⁶ the development and use of renewable and alternative energy technologies should be supported. The possibility of funding renewable energy projects depends on the National and Regional Programmes, which are managed at national and regional level. Member States have allocated around 3% or around 9 billion Euros for sustainable energy projects from the cohesion funds.

Supporting the development of renewable energy sources is a top priority of the **European Investment Bank (EIB)**. Its Corporate Operational Plan 2007-2009 has an annual subtarget of EUR 600-800 million for renewable energy projects and a relative target of 50 % of EIB lending to electricity generation associated with RE technologies. These targets are to be interpreted as a minimum, and the amount will be raised in the next plan. In the last few years, wind energy has constituted a substantial part of EIB renewable energy lending, and the Bank has already financed several off-shore wind projects for a total amount of 349.7 M EUR⁷. The bank considers offshore wind as being an "emerging technology".

The cost of some types of renewable energy does not always allow undertakings to charge competitive prices on the market and thus creates a market-access barrier for renewable energy. Such market failures can for example occur when production based on less environmentally friendly sources are not required to pay the full cost of the environmental harm arising from their activities and therefore enjoy an unfair advantage. Under some conditions, **State aid** can correct such market failures, thereby levelling the playing field between renewable energy sources and the alternatives. On 23 January 2008 the Commission adopted [new guidelines](#)⁸ on state aid which clarify that environmental investment and operating aid for the promotion of energy from renewable sources will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty if certain, specified conditions are fulfilled, and that state aid may be justified if there is no mandatory Community standard concerning the share of energy from renewable sources for individual undertakings. The [EU Greenhouse Gas Emissions Trading Scheme](#) is another EU instrument which indirectly supports renewable electricity production by making electricity generation based on fossil fuels bear the costs related to their CO₂ emissions, thus seeking to level the playing field in respect of such emissions.

⁵ The Action Plan and further information are available at http://ec.europa.eu/maritimeaffairs/index_en.html

⁶ OJ L291 of 21 October 2006

⁷ EIB support to clean energy is presented in the document http://www.eib.org/attachments/clean_energy_for_europe.pdf and the general actions in energy in the document http://www.eib.org/attachments/thematic/energy_policy_en.pdf.

⁸ OJ C 82, 01.04.2008, p.1: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:082:0001:0033:EN:PDF>