

Launch of Europe-wide Project on Offshore Wind Energy

Section Wind Energy at Delft University

The European Commission has initiated a project to stimulate the development of offshore wind energy into an important source of energy. Members from thirteen European countries are participating in the project, which is being led by the Section Wind Energy at the Technical University of Delft, in the Netherlands. The objective of the project, entitled Concerted Action on Offshore Wind Energy in Europe (CA-OWEE), is to collect knowledge about offshore wind energy from all over Europe, evaluate this knowledge and distribute it to all who can benefit.

Offshore wind parks promise to become an important source of energy in the near future: it is expected that within 10 years, wind parks with a total capacity of thousands of megawatts will be installed in European seas. This will be equivalent to several large traditional coal power stations. Plans are currently advancing for such wind parks in Swedish, Danish, German, Dutch, Belgian and British waters.

To support and accelerate this development, the European Commission is funding this one-and-a-half year project, which aims to gather and distribute knowledge on all aspects of offshore wind energy, including: offshore technology, electrical integration, economics, environmental impacts and political aspects. The partners are from a wide range of fields and include developers, utilities, consultants, research institutes and universities.

The project will focus on the large scale exploitation of the offshore wind resource through the use of very large wind turbines with improved performance, reliability and reduced environmental impacts. The challenge is to reduce the costs of offshore wind electricity to match those of traditional power stations by continuing the substantial decreases in prices already achieved by onshore wind turbines over the last decade.

The development of a market for large scale offshore wind farms will bring new business to the existing European wind turbine manufacturers and offshore engineering industry, creating employment for the associated work forces.

The Technology University of Delft has been involved in wind energy research and education since

1977. Currently the activities are spread across four faculties and focus on aerodynamics, dynamics, electrical aspects, integration into the built-environment and offshore. Experimental facilities include a fully instrumented wind turbine, an open-jet wind tunnel and blade testing rigs.

Information will be freely disseminated through a web site, printed reports, and via a workshop, scheduled to be held towards the end of this year (2001).

The partners in Concerted Action on Offshore Wind Energy in Europe (CA-OWEE), are:

- Garrad Hassan & Partners, United Kingdom
- Kvaerner Oil & Gas, United Kingdom
- Energi & Miljøundersøgelser (EMU), Denmark
- Risø National Laboratory, Denmark
- Tractebel Energy Engineering, Belgium
- Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT), Spain
- Centre for Renewable Energy Sources (CRES), Greece
- Deutsches Windenergie-Institut (DEWI), Germany
- Germanischer Lloyd, Germany
- Netherlands Energy Research Foundation (ECN), The Netherlands
- Espace Eolien Développement (EED), France
- Ente per le Nuove Tecnologie, l'Energia e l'Ambiente (ENEA), Italy
- University College Cork, Ireland
- Vindkompaniet i Hemse AB, Sweden
- Technical Research Centre of Finland (VTT), Finland
- Baltic Energy Conservation Agency (BAPE), Poland

More information about TUDelft is available at:
www.ct.tudelft.nl/windenergy/ca-owee