

## Offshore Wind Turbine Foundation Study

It has recently been announced that the government has given approval for the construction of two offshore wind farms located in the Irish Sea and Thames Estuary. The further development of this renewable energy source coincides with the involvement of Fugro Structural Monitoring (FSM) in a project to investigate suction caisson design for offshore wind farms. This joint industry/DTI funded project aims to develop design criteria for what is potentially a highly cost-effective method of foundation for wind turbines.

FSM, which is based in Glasgow, are working with Oxford University in conducting field tests of large scale models for monopod and quadruped caisson designs. These test caissons will be installed and instrumented to measure excess pore pressures and displacements during various loading regimes simulating cyclic wave and wind patterns. Investigations are ongoing into possible locations for these tests, although the RSPB have kindly agreed to the use of the soft clay site at Bothkennar on the banks of the River Forth. It is also proposed that tests will be conducted at a sand site near Luce Bay, South West Scotland.

Testing is due to start in the early summer of 2003.

