

Editorial

There are several motivating factors behind the desire to increase the contribution of renewables to the total energy production mix. One is the wish to be less dependent on security problems concerning oil and gas supplies. Another concerns the effects of long-term growth in energy demand. And then, of course, there is the growing importance of environmental issues including, but not confined to, the greenhouse effect and global warming. These motivators will only grow in importance. And if governments hesitate, organisations like Greenpeace will demand their attention for renewables, as in its recent major study on the potential for offshore wind energy generation in Europe.

The sea represents a huge potential green energy resource, and consequently the last few years have seen worldwide growth in the offshore renewable energy industry. A whole raft of innovative ideas has reached the R&D and prototype stage. They include a range of tidal and wave energy devices, including tidal-stream turbines and moving hydrofoils, linear generator buoys, offshore impoundments and barrages. But the most established yet is the wind sector. All systems/devices have their specific advantages and disadvantages but all have one thing in common: they involve work for our profession.

Work for (field)hydrographers, GIS experts, geophysicists etc. And once construction work is underway out at sea there will be a great variety of tasks calling for the expertise nestling in offshore, marine and underwater engineering companies. Efficiency means pooling a great number of the aspects and expertise involved in any renewable energy project, from selecting a site (only think of environmental impact assessment) to constructing it using an integral approach supported by GIS. However, not all projects are presently handled this way. Not only offshore renewables, but also some onshore renewables, like hydro-electrics, demand hydrographic expertise (see the article entitled "USBL for Dam Inspection"™).

Ongoing R&D and lessons learned will overcome present drawbacks and lower the price of marine renewable energy. For example, access to wind turbines for (corrective) maintenance is presently a point of concern, a matter which may possibly be overcome using an active offshore access system (see <http://www.ampelmann.tudelft.nl/>).

To conclude, I am pleased to introduce Andrew Gerrard as a new member of the editorial board. Andrew Gerrard is a chartered surveyor holding a MSc in GIS from the University of Nottingham. He began surveying with consulting civil engineers on the construction of underground railways in Liverpool before moving to East Anglia to work offshore. He sailed on hydrographic and engineering geophysical projects for ten years before taking a technical role onshore in data processing and chart production as a surveying department manager. Andrew Gerrard is presently chief surveyor with Gardline Marine Sciences Group.