The future looks green

CLEAN TECHNOLOGY Green energy projects are becoming increasingly popular with investors but much more money is needed, as **Geoff Nairn** discovers

After weathering the financial crisis well, the investment case for renewable energy infrastructure has never looked brighter.

"We are seeing a growing appetite for infrastructure investments in general but particularly clean energy," says Joost Bergsma, chief executive of BNP Paribas Clean Energy Partners, which invests in clean energy infrastructure across Europe.

Compared with conventional infrastructure, green energy has distinct attractions. First, all the power you generate gets bought. Second, its price is predictable, in some cases for ten or 15 years, thanks to feed-in tariffs.

"The renewable energy business is underpinned by long-term contracts that are pegged to inflation," says Peter Rossbach, managing director for private equity at Impax New Energy Investors, a renewable energy infrastructure fund.

In Europe, the market also benefits from the EU obligation to increase the use of renewable energy. In the UK's case, there is legal target for 30 per cent of electricity to come from renewables by 2020.

"There is an enormous amount of investment required to get to the 2020 targets," says Stephen Lilley, managing director at Climate Change Capital, a green investment bank.

According to the European Commission, reaching those targets will require €280 billion of investment and the lion's share will have to come from private capital.

The UK faces a particular challenge. Over the next five years, around 32 gigawatts (GW) of new capacity will be needed to replace that lost by decommissioning old plants.

"New nuclear plants cannot come online until 2018, carbon storage will not be viable until 2020 and the UK is already a net importer of gas, so what options are left? " asks Angus Norman, chief executive of Ocean Power Technologies (OPT), a renewables energy company.

Onshore wind energy has demonstrated its potential to fill this gap in many countries. But, despite being the windiest country in Europe, the UK currently gets just 2.5 per cent of its electricity from wind.

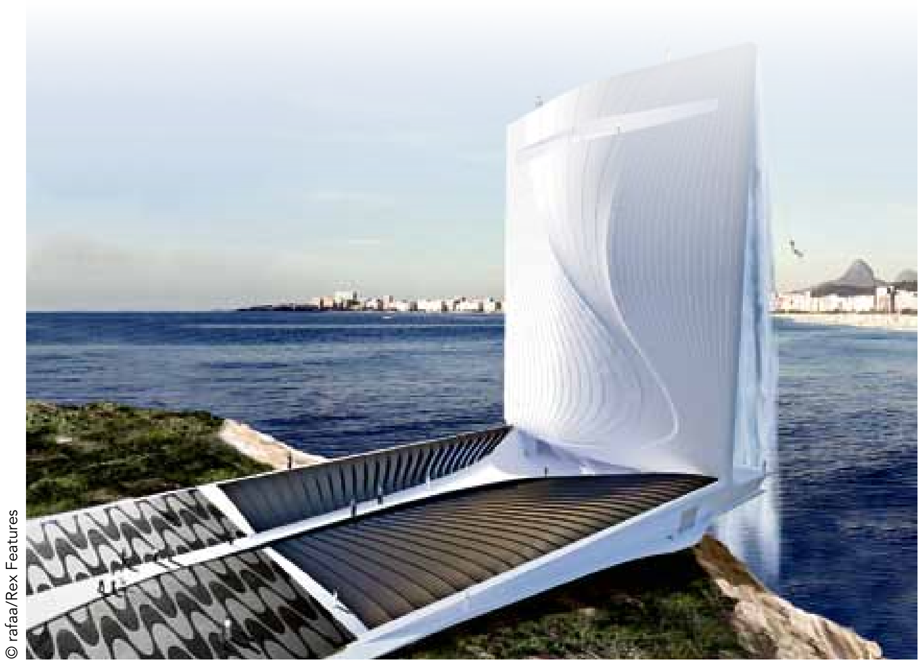
Supporters of wind energy pin much of the blame on the UK's planning system, which rejects two out of three applications for onshore wind farms. "The government has a green agenda. Tackling planning issues is going to be very important," says Mr Lilley.

With many onshore wind projects stalled, the UK government is betting on offshore wind to meet the 2020 target.

"Offshore wind is necessary in the UK because we have fallen behind so badly in onshore wind," says Peter Dickson, technical director at BNP Paribas Clean Energy Partners. "But for an investor like us, it's not appropriate because we do not have the experience to underwrite offshore projects."

Analysts agree that, for non-strategic investors, it is probably too early to be investing in offshore wind. "There is real interest in investing in offshore wind but investors are finding it difficult to quantify the construction risk," says John Gibbs, a partner at PwC.

> "With many onshore wind projects stalled, the UK government is betting on offshore wind to meet the 2020 target



© rafaa/Rex Features

Rio de Janeiro's Olympic Solar Tower

Hans Bünting, chief finance officer of RWE Innogy, the renewables arm of German utility RWE, knows all about risk. "Onshore wind is a mature industry, but offshore is not. You're developing in a much more hostile environment and there is technical risk, but you can limit that. The main challenge is on the logistics," he says.

RWE Innogy owns two offshore installations off North Wales and has permission to build a third, Gwynt y Môr, with a capacity of up to 576 megawatts (MW), a size unseen in the UK. It is also in the consortium building a giant wind farm on Dogger Bank in the North Sea. When completed in 2020, it will generate 9,000MW of electricity.

Nearly all the investors in the Dogger Bank and Gwynt y Môr projects are utilities. Dr Bünting bemoans the reluctance of financial institutions to invest in these big projects. "They fear the construction risk. But we need to attract investment funds as utilities simply do not have the money to build all the offshore wind projects that are planned," he says.