



Photo by: Kai Sarrf

## Wanted:

# 1.2 million wind turbines

European governments must take action to stimulate investment in the production of renewable energy. If they fail to do this, the credit crisis will cause a setback in sustainable energy projects. This will make it very hard to meet the EU's target of 20% primary energy from renewable sources by 2020. That is the main message of a recently released report (*Crisis or not, renewable energy is hot*) by PricewaterhouseCoopers (PwC).

PwC reports that meeting the EU's 20% renewable energy target will require 'staggering sums'. 'At the moment we are averaging seven per cent, so we have a long road ahead of us,' says co-author Paul Nillesen. 'In concrete terms this means realising 1.2 million wind turbines, or 565 million m<sup>3</sup> of biofuel or nearly 60,000 km<sup>2</sup> of solar panels.' Total costs are estimated to be between €1800 and €3900 billion, when the most expensive form of renewable energy, solar, is excluded. Adding solar to the mix will cause the bill to become even higher. Surprisingly perhaps, "ocean power" (or tidal power) is estimated by PwC to be the cheapest form of renewable energy, but tidal power cannot make more than a limited contribution to the overall energy supply.

According to Nillesen, the renewable energy sector provides tremendous opportunities in the long-term, given the huge investment requirements. However, PwC is concerned that as a result of the credit crisis 'long term investments are put under pressure because the increased cost of financing will reduce renewables' return on investment.'

This could cause considerable delays, warns PwC's European Renewables Leader Aad Groenenboom. Projects by private businesses in particular are under threat. Projects by utilities are considerably less vulnerable because of the stable cash flows these companies enjoy.

Groenenboom: 'The figures indicate that Europe is facing an enormous logistical challenge. A delay would mean a huge risk when you realise that renewable projects usually take five years to prepare.' PwC therefore urges governments to take an active role. 'They have to stimulate countercyclical investments now', says Nillesen. 'Renewable energy will have to be developed anyway if we take these targets seriously. And we can expect the oil prices to rise again in the future.

Investing now will contribute to economic recovery and will ensure a good position for the European renewable energy sector when the economy recovers.'

Nillesen warns that countries that fail to take action run the risk that they will just be doling out subsidies in the end instead of creating new jobs.

European countries would do well to look to Germany as an example, say the researchers. In this country, a long-term, guaranteed tariff gives energy producers and investors security. The costs are borne by the consumers who pay a fixed percentage on top of their energy bills. 'Germany is extremely successful in realising renewable energy projects because funding is not dependent on politically sensitive public money', says Nillesen.

The fact that a large share of the money from German energy consumers ends up with non-European businesses such as Asian producers of solar panels, is not a problem to the PwC researchers. 'You have to accept this if you want to meet the target – and if you want to be a knowledge economy rather than a bulk producer.' ■ *Annemieke van Roekel*