

## Interview IAN MAYS

Ahead of BWEA30, RealPower catches up with one of the key figures in the Association's 30 year history. Dr Ian Mays has managed to combine his passionate academic interest in renewable energy, with a clear sense of business opportunities opening up in the sector. As one of the past Presidents of BWEA and current CEO of RES – while still holding an academic post – Dr Mays is ideally placed to give us an in depth look at our industry.

### PLANNING IS THE ISSUE – NOT THE RENEWABLE OBLIGATION

"THE MORE IMMEDIATE CHALLENGES IN TERMS OF IMPACT UPON THE GENERAL POPULATION ARE LIKELY TO COME FROM ENERGY SECURITY, AS WE ARE LIKELY TO SEE BIG IMPACTS WITHIN TENS OF YEARS."

Arriving at Beaufort Court, Renewable Energy Systems' (RES) award-winning headquarters it becomes strikingly clear; RES wants to practise what it preaches.

The regeneration of the former Ovaltine egg farm into a low-carbon office redevelopment stands testament to RES' proactive approach to the Government's renewable energy target of 20% of all energy by 2020.

Designed for self sufficiency, Beaufort Court uses on-site renewable heat and power installations including a wind turbine, solar panels, biomass crops, underground heat store and natural groundwater cooling system, demonstrating the viability of renewable sources for use in all sectors. RES was formed in 1981 when the Sir Robert McAlpine construction and engineering group diversified into wind energy in response to an invitation from the Department of Energy – as it was then – to form a consortium which would go on to develop the vertical axis wind turbine in 1986.

Ian Mays, chief executive of RES, describes McAlpine's activities at this early stage as "very much research and development" with a focus on offshore wind, where the Government thought

vertical axis turbines would come into their own. Much of the early work was stimulated by the energy crisis of the 1970s, but some of that ministerial enthusiasm dropped away with the falling of energy prices.

Later on, the Non-Fossil Fuel Obligation, a Government directive to tackle global warming, also acted as a catalyst in the evolution of the renewable sector. "The new market for wind allowed RES to turn our skills and background in wind energy research and development into a commercial business allowing RES to start trading in 1989 shortly after the introduction of the NFFO," says Mays.

#### DRIVERS FOR CHANGE IN THE RENEWABLE ENERGY INDUSTRY

The RES boss is a keen supporter of Government support mechanisms for renewable energy, but notes differences between the US and UK systems. "The Renewable Obligation (RO) as a mechanism is very effective and works well. Both the RO and the PTC (in America) encourage the development of projects and provide a level of support which is adequate for their development. The reason why the PTC is bringing forward more capacity than the



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Ian Mays

RO is about the size of projects in the US and the relative speed of planning consent and associated infrastructure. It is not the mechanism that is the issue, it's the infrastructure surrounding it.

Streamlining of the planning system along with strategic planning regarding the grid is essential to allow recently completed or proposed projects to operate effectively," offers Mays.

"This has been a continuing frustration of ours. Many in Europe who favour the feed-in tariff suggest the RO is not working as a mechanism. I personally don't think that is correct. What has prevented capacity being brought forward in the UK is not the mechanism, not the nature of the power purchase agreement, it is much more about the underlying issues involved in planning and the grid."

Government market support mechanisms are not always entirely beneficial: "The US market has a 'stop go' effect to it because of the production tax credit. Very often it doesn't get extended until the very last minute or until it has actually run out, which means in the last year there has been a drop in confidence within the marketplace. This is very unfortunate for the wind industry because it means you cannot plan production to meet steady growth, which is required to meet demand," May explains.



Ian with EU Energy Commissioner Andris Piebalgs

"The instability of the production tax credit is not supporting the industry in a way which will allow targets to be met."

#### LACK OF SUPPLY...AND DEMAND

Oil supply will peak in the next five years and gas in 2030. 'Plugging The Gap', a survey of world fuel resources produced by RES, illustrates the problem. Mays is concerned that "long before 2030, demand will exceed supply for gas and although global warming has been seen as one of the major drivers for wind energy we as an organisation believe there are twin challenges - global warming and energy supply security. If anything the more immediate challenges in terms of impact upon the general population are likely to come from energy security, as we are likely to see big impacts within tens of years."

"We are now at a point where our fossil fuel resources that have taken 600 million years to create are at a peak in terms of availability and usage. We started using fossil fuels in 1800, and they will be pretty much exhausted by 2100, so in a period of 300 years we will have used all of the natural resources that took so long to create. You can imagine there are going to be some pretty challenging times ahead for us, in terms of how we ensure continued social cohesion and support the population when fossil fuels are no longer a viable option."

#### CREDIT CRUNCH

The rising costs of gas and electricity in households across Britain along with financial turbulence have acted to create an unstable economic climate. When asked if this had had a negative effect on RES' business Mays seemed positive stating that "RES is largely but not entirely insulated from the credit crunch because of the demand for energy and high oil prices. This means there are a lot of people trying to minimise their energy bills, so renewables are looking increasingly competitive with gas and oil."

The future of investment in renewable power sources looks promising, and whilst investors may be cautious about the market in general Mays believes investors and indeed banks "see the renewable energy sector as one that has to grow in order to meet targets and to provide energy security and indeed energy in future".



The grid was built on the basis of centralised energy distribution, with power stations generally built within close proximity to the coal fields from which they draw their resources.

On tackling this problem Mays spoke of the required changes in the way energy is distributed explaining that "wind energy along with other renewables is a dispersible power, so the generators must be spread across the country rather than on a centralised system. When wind farms do become connected to the grid it is currently to a relatively weak part of the system which means that capacity is lost through inefficiency."

Mays believes the solution to such issues can be achieved by "a process of evolution. Such a process has to be built around a strategic plan focussing on progression from where we are now to where we need to be. Bearing in mind how long it takes to build an overhead line it needs to be done very quickly. It took something of the order of 10 years to get consent to build the recently upgraded interconnector between England and Scotland and we just don't have that sort of time to wait."

The planning system has always been seen as a huge inhibitor of the potential for wind power in terms of the delays it causes to almost all wind projects in the UK. However there is hope on the horizon in the form of the Infrastructure Planning Commission. The IPC will deal with wind farm applications and above a certain size rather than each local authority, in theory making planning applications more standardised.

Mays is hopeful that "the planning commission will speed up consent for big infrastructure projects such as wind farms and the grid. The important thing is to make sure that the IPC, as it will be known, will have the right level of power to be able to ensure that this infrastructure is going to be in place within a timescale that is necessary to avoid some of the significant difficulties we are going to have in future regarding energy security."

#### MEETING 2020 TARGETS -

When asked about which natural resources could replace fossil fuels to meet government targets Mays first spoke of the options the UK has. With large amounts of capacity in terms of potential wind power both on and offshore it would seem at least to meet short-term targets the UK's most valuable option is wind, he argues, with potential too for biomass, solar, ground source energy and tidal.

RES is aware that some resources are more readily available in other countries and the company remains committed to actively developing renewables worldwide with significant focus on solar in the US, wind and solar in the Mediterranean plus biomass in Northern Europe.

If we look at the targets that have been set in Europe and those likely to be set in the US after the elections, we are going to need a wind industry that is at least five times bigger than it currently is in terms of annual capacity by 2020, argues Mays. But he believes despite the global challenges the industry is up to the task. "It's achievable but we need to develop a more strategic plan very rapidly. We must recognise that there are big problems coming and we don't have the luxury of time to wait before we have our foot very firmly on the accelerator in putting in place alternative forms of electricity generation."



#### DR IAN MAYS MBE, CEO, RENEWABLE ENERGY SYSTEMS (RES)

Dr Mays has been leading the field in the development of renewable energy since the 1970s and is one of the renewables industry's leading advocates in the UK and abroad.

He is past President of the European Wind Energy Association, past Chairman of the British Wind Energy Association and now closely involved in The Global Wind Energy Council.

He is a mechanical engineer by training, obtaining his BSc and PhD degrees at Reading University and is Visiting Professor at the School of Engineering of the University of Hertfordshire.

Ian is a holder of the Royal Academy of Engineering's prestigious Silver Medal, was named 'Renewable Energy Champion' by the industry in 2006 and was awarded an MBE in 2007.