

Opinion Piece by RES CEO, Dr Ian Mays,
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*Ecology and technology – how can modern technologies
protect the environment?*



Society is currently facing two serious challenges – climate change and the security of future energy supplies – and it is technology in the proven form of renewable energy that will play a vital role in meeting both of these challenges head on.

From our own survey of scientific thinking on climate change to be published shortly, incorporating the findings of the recent Stern and IPCC reports, it is clear that there is overwhelming agreement that global warming poses a serious threat and needs to be addressed urgently. Governments are waking up to this and many are looking to technology to provide the solution. But we do not need to resort to futuristic ideas for giant space mirrors and reflective dust. We already have tried and tested low carbon technologies ready to play their part. Of course there must be measures to reduce energy demand, as the most cost-effective way to cut emissions. But shifting our energy strategies to a greater mix of sustainable and renewable technologies is a win-win-win approach, bringing environmental, social and economic benefits.

The potential is certainly there. Onshore wind power costs have come down substantially in the last decade, making it the most economic of the renewable technologies for electricity generation. Planning obstacles can be overcome through sensitive design and public opinion is favourable. It is a technology where the fuel is abundant and free – and siting offshore significantly increases the resource. The commercial and industrial world is increasingly looking to it and other renewable systems such as biomass heating, ground source heat pumps and solar collectors as a cost-effective investment for on-site secure and carbon-free energy production.

But climate change is not the only driver for investment in renewables. Last year, RES published a survey of future global energy supplies, which concluded that the world faces a serious shortfall between demand and supply for oil and gas that could become evident soon after 2010, with a 10 per cent shortfall by 2020 and an 18 per cent shortfall by 2030. Eventually this gap will be filled by a mix of renewables, clean coal and nuclear. However, wind power as a safe, carbon-neutral, economic and indigenous energy resource, is the best choice to fill the electricity generation gap left by gas in the short and medium term.

Decision-makers are recognising the benefits renewable energy technologies can bring. At our award-winning zero-emissions head office in Hertfordshire, refurbished to high environmental standards, we have installed a range of technologies including a 50m wind turbine, solar panels, natural cooling and biomass heating.

Renewable energy technologies are working successfully all over the world and with foresight and appropriate policy frameworks there is enough resource to roll them out on a huge scale, allowing technology to play a major role in protecting the environment and keeping the lights on.

By Dr Ian Mays, CEO, Renewable Energy Systems Group.

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