

Passionate threesome in Leeds (debating Renewable Energy...)

The New Members Group of the Tyne & Humber Branch recently organised and hosted a debate on the topic of “Renewable Energy”. Passions blazed through the evening as the packed room heard from a panel of prestigious speakers comprising Robin Green (President of CIWEM), Dr Alan Taylor (Associate Director for Renewable Energy at Halcrow) and Nick Reeves (Chief Executive of CIWEM).

One by one each speaker disclaimed any association between their opinions and those of their employers and organisations and then bared their souls to give full, frank, intelligent and challenging opinion on how they saw the future of energy. By sharing their hopes, fears and dreams on all aspects of renewable energy, all present were able to learn, share and be challenged.

Robin Green started the debate by differentiating between true renewable sources and those which are reclaimed from previous activities. Wind is one ‘true’ renewable, but has limited potential due to its ephemeral nature and the fact that it can not be controlled. For wind generation to be effective it needs to be part of a stable grid system, such as that which Denmark shares with its neighbours. In terms of other options, nuclear seems to be becoming a government favourite but has significant issues and is not carbon neutral. However, one of the issues with developing alternatives is public perception about what they consider to be polluting, and this has stalled many energy from waste schemes. Whilst we have depended significantly in the past on natural gas we are a net importer at the end of the supply chain from some unreliable sources. The political issues associated with this are considerable. An alternative would be to return to coal in conjunction with clean coal technology and carbon sequestration.

Dr Alan Taylor then turned the debate to the potential of marine renewables such as waves, tides and offshore wind. Of these three, offshore wind is the most developed technology and a current installation in the Thames estuary comprises 270 turbines. With offshore wind, and any other marine energy source, a significant cost is incurred in getting the power ashore as cable can cost between £100 and £200 per meter. Dr Taylor has been involved in setting up a demonstration project in Cornwall for pre-commercial wave power installations. Currently a wide variety of prototypes exist, and it is hoped that this facility will allow testing and feasibility studies to be carried to facilitate larger scale installation. In the course of this work a lot has been learnt about the baseline marine environment, which in many locations has never before been studied. He stressed the harsh nature of the marine environment. With all offshore technologies the key issues are ensuring appropriate robust and reliable design, and consideration of the maintenance needs of the structure throughout its life.

The potential implications of following a nuclear based power strategy were then expounded by Nick Reeves. CIWEM is currently in the course of preparing a policy statement on nuclear power, but Nick gave an honestly refreshing perspective of his personal opinion. Rather than following the path the government seems predestined to follow, there are measures that can be taken to make a difference. These include legally binding CO₂ reduction targets for government each year, decentralising supply, and mandating that all new buildings be CO₂ free. As a society we also need to tackle issues such as transport; including vehicles with high fuel consumption and

the excessively cheap flights that are available. On a higher level President Bush needs to be spoken to as the world's greatest polluter when the USA should be taking a lead. However the real issue is that of population. No-one seems prepared to address this, but the WWF has estimated that the world can not sustainably support a population greater than 3 billion.

The format of the evening was that after each ten minute presentation there was a time of open questioning and debate from the floor. David Rathmell, the branch chairman, very ably handled the questions and comments arising, contributing to the discussion with his experience in the construction and commissioning of energy from domestic solid waste plants.

Questions raised included the role that our Professional Institutions should be playing in taking a lead on these issues and the importance of considering the energy needs of the country on an economic basis based substantiated by scientific facts, rather than the irrational procedures that are currently followed.

The branch's thanks are extended to the New Members group who facilitated this event which will surely be one of the highlights of this year's annual programme.

New Member Authors
Robert Berry - Halcrow
Thomas Sagris - Arup
Peter Wilkie – Arup