

Scotland's route to sustainable energy



Organisers, presenters and VIP guests at the seminar held in Aberdeen

To mark the visit of new Institution of Civil Engineers (ICE) president David Orr to Aberdeen recently, the Aberdeen Association of Civil Engineers (AACE) held an energy seminar at the Satrosphere Centre, Aberdeen during the course of the afternoon.

Regarding the motives for organising such an event AACE president Jamie Christie said "As civil engineers working locally, and with this being David Orr's first visit to the Aberdeen area, we wanted to demonstrate to the ICE president the existing knowledge and expertise within Scotland and the North-east in particular within the field of sustainable and renewable energy. Although conceived, developed and engineered by a broad cross-section of professionals it's important that we as civil engineers understand the direction the renewable energy industry is taking if we are to ultimately deliver these schemes to help bring them on-line."

Special guest Orr, along with ICE director general Tom Foulkes and president's "apprentice" Molly MacKenzie were part of an audience of approximately 30 to listen to local energy guru Jeremy Cresswell introduce and then sum up the event after the delivery of the 3 key presentations as follows:

"The Future of Energy" by Iain Todd of the Aberdeen Renewable Energy Group (AREG)

"Meeting The Energy And Environmental Challenge" by Chris Winter of British Energy

"A Commercial Overview of Energy Issues" by Mike Salter, president of the Aberdeen Chamber of Commerce.

It was reported that the need for greater renewable energy sources was being driven by the increasing oil price, and in Scotland by the Scottish government. Scotland reputedly has the best natural wind, wave and tidal resources in Europe and these are crying out to be exploited. Iain Todd presented a case for renewable energy based on the "green benefits" and a desire to avoid reliance on imports of other energy sources such as oil and natural gas. He also referred to government and EU policies setting various targets in terms of carbon reductions and renewable energy schemes up to the year 2050! AREG's plans to make Aberdeen as well known for renewable energy as it is for oil and gas were expanded on including details of their proposed offshore wind farm at Aberdeen visible from a renewable energy centre located on the shore-line.

Chris Winter explained why he believes reducing carbon from the electricity sector is so important to future energy supply, but also how this is likely to be very difficult to achieve. With road vehicles forecast as doubling by 2050, the impracticalities of achieving zero-carbon homes

across the nation and the number of houses increasing, it seems that today's efforts to reduce carbon simply mean we are running to stand still. A step change was therefore proposed starting with electricity generation where Winter believes reducing carbon is feasible, but at a cost, and re-focusing on nuclear may be the way forward.

Mike Salter gave a commercial overview of the energy sources currently available with an early view that electricity is the most basic commodity in the world after water, and that future capacity is essential to our existence. He then examined coal/oil, nuclear, hydro and wind as electricity sources in more detail before concluding that there are pros and cons with each source, the end-product quality was essential, and that a balanced portfolio of energy sources should be encouraged but with a strong emphasis on renewable energy sources such as wave and tidal.

In conclusion it was a very thought provoking seminar, so much that the audience were most interactive during Q&A pushing the speakers and Cresswell to their limits with the diversity of questions and issues touched upon. Proceedings were ably brought to a close with a vote of thanks to the speakers and organisers given by Molly MacKenzie of Severn-Trent Water who had earned the privilege of work-shadowing the ICE President in the course of his visit to Scotland. ■