

Playing our part



The Energy Institute's (EI) new President, Malcolm Brinded CBE FEI, explains how he sees the energy sector developing in the future, and the role that the EI will play under his Presidency.

What challenges lie ahead for the UK's oil and gas – and wider energy – sectors as we head towards and post-Brexit?

The UK energy industry routinely suffers from uncertainty, inconsistency and short-termism in government policy-making – as EI professionals highlighted loud and clear in this year's Energy Barometer. Clearly Brexit adds to concerns on all these fronts and brings the worry that energy issues don't get the priority needed, given their importance to the UK economy, in the current political maelstrom. I hope that the government will use the imminent publications of both the Industrial Strategy and the Clean Growth Plan to set out much more consistent long-term energy policies that encourage the crucial investment and skills development we need.

The UK may be an island, but it would be a mistake, post-Brexit, to treat our energy system as such. Our UK gas and power systems have become increasingly integrated and connected to Europe over the last 30 years – to our immense benefit in terms of security of supply, flexibility, resilience and overall cost-effectiveness. We need to retain and indeed increase this interconnectedness.

In the UKCS upstream sector, low oil prices and basin maturity

together have led to a disastrous drop in investment levels, and the industry has been struggling. I think the keys to revival – which could maximise economic recovery and benefit everyone – are collaboration, innovation and technology. It is good to see the growing industry and government efforts across all these agendas, but the window of opportunity to exploit the North Sea to its full potential is now short and the government and industry together need to be very focused on action, not just discussion.

What measures should the UK energy industry and government be taking in order to promote the transition to a low-carbon economy?

Though the EI's college of energy professionals see significant decarbonisation momentum, they are pretty sceptical regarding prospects for meeting the UK's 5th Carbon budget target which requires a 57% fall in UK greenhouse gas emissions by 2032, with more than 75% expecting the UK will miss this goal. I think this requires concerted action across the board, starting with a sustained focus on promoting better energy efficiency in the housing and commercial/industrial sectors, which always get underplayed in relation to power generation and transport, and yet offer significantly lower

'costs per tonne of avoided carbon emissions' than many of the other measures.

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On power, I personally think the UK missed the lowest cost trajectory to reduce emissions over the past decade, when increasing gas generation and phasing out coal-fired power earlier would have been more cost-effective than over-subsidising first-generation renewables. That said, the latter should still have been supported at sufficient scale to track an effective learning-curve for later large-scale deployment at lower cost.

As a result we also reduced our international manufacturing competitiveness. Though that horse has largely bolted, my view is that the UK still seriously needs to reappraise future power options, recognising that renewables are now increasingly cost-competitive without subsidy, and that the LNG import potential of low-cost North American shale resources means gas price outlooks are very much moderated long term. More should also be done to incentivise and support early stage R&D and innovation on low carbon energy, with a real focus on the export potential to target the global carbon transition challenge.

What about globally; will the EI's international focus allow it to play a part?

I am excited by the EI's plans to increase our international footprint, membership and relevance. We are a unique organisation, being a learned society with the broad ambition to ensure that energy, and its critical role in our world, is better understood, managed and valued. Our membership spans every sector of the energy business from deepwater drilling, to solar systems and battery storage, smart energy management and energy efficiency. Many members will have careers that span several sectors over a lifetime, and we aim to support their professional development and lifelong learning throughout this journey, through our training programmes, publications, events and active knowledge networks.

Though we have good links with about 250 companies worldwide which focus on skills development and technical guidance – we are not a trade association. As a result, governments know they can trust us for independent, objective, fact-based advice and input, sourced from industry experts across all sectors. With 33% of our membership already outside the UK, and a target to increase that to 45% by 2020, I hope we can increasingly provide helpful input to support meeting the massive twin challenges of limiting climate change, whilst providing better access to affordable energy for the billions who need it.

In an age of decarbonisation, is the international oil industry faced with an impossible task, given calls to keep hydrocarbon resources in the ground?

There is no doubt that the world will still need oil and gas for a long time. Today they meet some 55% of primary energy demand and most forecasters see that share falling only gradually (even the International Energy Agency's 'New Policies' scenario projects over 50% of primary energy in 2040). The key driver will be the increase in energy needs of developing economies, which outweighs the declining usage in OECD countries such that global oil demand is typically forecast to still grow – albeit slowly (0.5–0.8%/y) – over the next 20 years. Because of increasing power needs, global gas demand grows significantly faster, at around 1.5%/y.

These are not head-in-the sand projections that ignore the exciting prospects for rapid passenger vehicle electrification globally –

portrayed as aspirational just a few years ago, but now increasingly realistic as battery costs and range improve faster than foreseen. But the impact of displacing petrol/diesel cars is outweighed by increasing heavy freight, air and marine transport, and petrochemical usage, as well as continued passenger car increases in developing economies.

This does not mean the oil industry should be complacent. The drive to reduce costs and emissions throughout the energy delivery chain remains, and there is no doubt that large amounts of hydrocarbon resources will – and should – remain in the ground if we are to achieve anything like the 2°C climate-change world that the Paris Agreement requires.

In all this, I am disappointed that carbon capture and storage (CCS) has not progressed as needed, with a dissonance between the widely accepted urgency of deploying CCS globally (not just for power, but in CO₂-intensive industrial applications such as steel and cement manufacture) and the lack of concerted action to drive innovation, demonstration and faster deployment at scale. This is an area requiring increased global, cross-sector collaboration and a more credible voice – one that is not partisan, but rational, evidence-based and open to the reality of the challenges of CCS.

How do you see the role of the EI developing under your Presidency?

The EI has a terrific CEO, Louise Kingham, and a really impressive staff team, who drive the execution of our strategy, determined collectively by our Council, which comprises over 20 diverse leaders from many branches of the energy world. As President, I succeeded Jim Skea – the world-renowned climate change expert – and though we come from very different career backgrounds, we are closely aligned, especially on the future path of the Energy Institute. So I am looking to help increase momentum rather than change direction.

Our core task is to serve our individual and company membership even more effectively, with more events, training, new publications, technical guidance, and learning and best practice networks. We would like to grow our membership, both in the UK and internationally, as that will clearly benefit all existing branches and members by improving our cost-efficiency and spread of offerings. So I urge all EI members to encourage their colleagues and

friends to become members.

On top of that we have three themes for change. 1) International growth, where our unique offering could help fill a space that exists in many countries facing a challenging transition to a lower carbon economy as well as increasing access to affordable energy. 2) Increasing our effectiveness in policy engagement – both in the UK and increasingly overseas – through building trust in our objective, impartial expertise, and ability to call on members with deep knowledge in every energy sector. 3) Increasingly positioning the EI for the transition to a lower carbon world, whilst continuing to support our oil and gas industry membership.

Based on your experience what advice would you give to young people looking to embark on a career in the energy sector?

I would advise young people to ensure their first few years in work give them a solid professional base and some deep know-how, probably drawing on their academic background, that they can leverage to build experience, confidence and softer skills. I would advise them to identify what they really enjoy at work – and also what they are really good at. Ideally these areas overlap, but if not, try to find ways to get them closer – and then prioritise enjoyment and job satisfaction, as the learning curve will last much longer.

Do not think about where your career will end, but focus much more on getting the most from your current role. Consider what you would like to be doing in three to 10 years' time, and how you might get the experience to achieve those goals. Realise that lifelong learning is essential – the pace of innovation and change is faster than ever, and many of the jobs of 15+ years' time are mostly unimaginable today. Find ways you can learn and stretch yourself effectively in work and beyond, where of course active involvement in the EI can be a big help!

I always enjoyed being really engaged and committed at work, but also tried to keep a proper balance with real downtime, and especially to prioritise family above all else. Your job will evolve to be unimaginably different from where you start, with constant curiosity, strong values and effective interpersonal skills ultimately much more important than initial academic knowledge. And luck helps. ●

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Malcolm Brinded,
EI President