ERP Post-Plenary Debate: Industrial Strategy

On 12 January 2017, in anticipation of the Government's **Industrial Strategy Consultation,** ERP[1] hosted an evening event to discuss the topic:

"How can the UK energy sector help deliver the government's industrial strategy to create new growth in home and international markets?"

Guest speakers included:

- **Julia King**, Baroness Brown of Cambridge
  Chair of the Committee on Climate Change's Adaptation Sub-Committee

- **Nick Gardiner**
  Managing Director - Head of Offshore Wind, the Green Investment Bank (GIB)

- **Tom Greatrex**
  Chief Executive of the Nuclear Industry Association & previous Shadow Energy Minister (2011 – 2015);

Key Messages

Three main themes[2] emerged from the debate, summarised as follows:

1. **Strengthening existing technologies**

This theme focused predominantly on offshore wind. The UK has the largest offshore wind market in the world, with 5.1GW currently operational. A further 1.2-2GW is expected in the next CfD auction, plus an additional 10+GW by 2020, with an estimated value of £20billion.

Given the size and historical strength of the UK offshore wind market, we have a key opportunity to build on our current position and retain world leadership. There is already significant interest from China, the USA and others, but clarity and support from a UK Industrial Strategy could help to focus this and further develop expertise. A number of opportunities for the UK were identified:

- **Encouraging UK banks to lead in offshore wind transactions:** No UK banks currently do this and the field tends to be dominated by continental Europe and Japan.
- **Exploiting export opportunities**: Offshore wind is on the rise significantly in countries such as China, Japan and Taiwan, with developments also occurring on the US Eastern Seaboard. There are major export opportunities here for the UK if leadership is retained, particularly given the number of under-used UK shipping ports, for example.
- **Building the supply chain in offshore wind**: This needs to be continued, uncovering export and local benefits, such as with the recent opening of the Siemens factory in Hull.
- **Championing UK expertise in the sector**: As well as focusing on major OEMs, it is important to champion SMEs (Small & Medium Enterprises) also, we need to identify areas, such as cabling companies, where the UK holds major expertise.
- **Developing floating wind turbines:** This novel technology is generating much interest. Greater developments here would open up even wider markets for UK offshore wind, e.g. in Western USA, Japan & Hawaii.
- **Low carbon R&D**: The Research Councils currently offer very little funding for offshore wind. Could there be opportunities for low-carbon energy within the Industrial Strategy Innovation Fund which offers £2bn/year overall?
- **Exporting our expertise**: The UK needs to export wider areas of expertise relating to offshore wind - in construction, operations, foundations & finance and others.

[1] The ERP provides an impartial forum for its **members** and other colleagues to speak out in open and honest debate. Find out more about ERP **here**
[2] This document is intended to be a *reflective* summary of speaker/audience debate. These are therefore *not necessarily* the views of ERP.

2. Risk-taking

This theme focused on the need for riskier research, particularly in CCS and Small Modular Reactors (Nuclear SMRs) which differ in terms of risk, as they haven't yet been deployed. A number of opportunities were discussed:

- **Government needs to act to reduce risks for banks and investors**: The Green Investment Bank was not set up to make risky investments. Therefore the UK Government should be more actively seeking partnerships in early high-risk projects.
- **Exploiting export opportunities**: There is good potential for UK export opportunities in relation to SMRs. The UK has the most skilled nuclear decommissioning workforce in the world, offering export opportunities to countries like Japan.
- **Becoming a world leader**: The UK is not the only country aiming to be world leader – many others have government-led programmes in nuclear. This should however increase the importance of competition and gaining a UK-lead.
- **More funding competitions:** A UK funding competition for nuclear SMR research worth £250million was well received, and there is potential for more of these.
- **Becoming a world leader in CCS**: The UK has experimented with CCS but so far business models for these (and other projects globally) have struggled. Yet this should be seen as a key opportunity for the UK to lead**.** CCS may feature in the upcoming Industrial Strategy document but something is needed to develop new business models for it and for other low carbon technologies. This point (regarding CCS) fits with a message from **ERP's 2015 CO_2-EOR report** which recommended establishing a CO_2 transport network / infrastructure company. This would reduce the risks for developers of carbon capture projects.
- **Broader interest in Energy storage**: It will be important to consider a range of energy storage options that apply at all scales across the whole energy system.

Similarities across technologies/sectors (such as Nuclear and Offshore Wind) were also noted, in terms of industrialisation opportunities and transferable 'high-end' skills. However, comparing these technologies 'like-for-like' can create complexities, as this depends on how performance and costs are defined[3].

3. What is a UK Industrial Strategy?

The final theme asked what is an Industrial Strategy and what should it look to include?

"A document is not an Industrial Strategy and an Industrial Strategy is not a document – an Industrial Strategy is a process; and the associated document is just the start of that process"

"An Industrial Strategy can help rebalance and diversify the UK economy and allow the UK to export to global markets. There is huge scope and scale for this with much progress made, but there is more to do".

Discussion points noted that an upcoming Industrial Strategy should:

- Be about sectors (including cross-sectoral e.g. aspects relating to low carbon heat), regions, skills & R&D, with a greater focus on low-carbon and associated skills
- Provide opportunities for the UK as a whole – both domestic and export
- Provide solid guidance that the energy sector can build on and work towards
- Identify 'clear winners' and provide clarity without excluding other or newer options
- Be supported by appropriate legislation/regulation
- Identify risks but be brave, *take* risks and 'think outside the box'
- Highlight a sense of responsibility from all parties involved across the energy system
- Provide accountability and help with uncertainty
- Support a range of specific technologies - recognising that a mix with different strengths and geographical spreads is key (more collaboration, less rivalry). How does interconnection fit?
- Realise that it can't solve all issues but should help to 'join the dots'

ERP would like to thank guest speakers and attendees for their valuable contributions.
All points summarised will be put forward for consideration, to help inform thinking prior to the release of the new UK Industrial Strategy White Paper.

[3] **ERP's 2015 report on 'Managing Flexibility'** put forward that Levelised Cost of Electricity (LCOE) is an outdated tool for comparing technologies.