



**Symposium on the Role of Nuclear Power in Achieving Net Zero in the UK – Nov 21st**

The All-Party Parliamentary Group for Energy Studies (PGES) hosted a symposium, supported by Terra Praxis, bringing together parliamentarians, industry, academia and environmentalists to consider: -

- a) Whether there was a need for more nuclear power to achieve Net Zero and
- b) If so, then how the obstacles to achieve it could be overcome

The keynote address was provided by Lord Deben.

Speakers on Panel 1, chaired by Baroness Willis, to address the need, included Lord Deben, Sue Ferns (Deputy Secretary of Prospect Union), Dr Greg De Temmerman (Chief Science Officer of the Quadrature Climate Foundation) and Professor Jim Watson (Professor of Energy Policy at UCL).

Speakers on Panel 2, chaired by Lord Ravensdale, to address the obstacles, included Kirsty Gogan (Co-CEO of Terra Praxis), Dr Paul Nevitt (VP for Science and Technology at The National Nuclear Laboratory) and Conor Kelly (Head of Sustainability at Microsoft Azure (cloud computing)).

The agreed context for the debate was the now statutory goal of Net Zero by 2050 and the Climate Change Committee recommendations (Sixth Carbon Budget): -

- a) To double electricity capacity by 2050 (50% more by 2035)
- b) To achieve a completely low carbon grid by 2035 (12 years)
- c) To power this grid with 80% renewables - primarily wind and solar, by 2050 (70% by 2035)

It was agreed that this implied a **four-fold increase in low carbon generation by 2050**

The agreed challenge was how to deliver this four-fold increase in 80% intermittent low carbon generation, first and foremost reliably, and secondly, on a least cost basis.

The conclusions of Panel 1 were: -

- Yes, most of the panel agreed we need nuclear energy to be part of the mix if we are to get to Net Zero
- But we need to speed up the adoption of technology, and do it at scale
- And really importantly, how to train the workforce to push it forward

The conclusions of Panel 2 were: -

- Safety is well proven, well established and improving steadily in the sector with Gen III technology
- Waste is a small-scale issue and may be significantly mitigated in the future by closed cycle re-use
- Cost is complicated: Large-scale nuclear clearly has a cost overrun history in the UK and elsewhere. But cost needs to be considered on a system cost basis, particularly as we ramp up renewables and need to take account of grid connection and grid back-up costs. On this basis, nuclear currently forms part of the lowest cost current pathway to Net zero, even at its recent construction cost.

Regarding policy, the sense of the symposium was that the UK is developing an excellent long-term plan for leadership in nuclear fusion but is decidedly lacking in a similar plan for nuclear fission. **Panellists and attendees strongly felt that a more joined up plan for design assessment, site licensing and testing the next generation of small modular and advanced modular reactors would be of substantial benefit to the UK, both in achieving its own best path to Net Zero and in providing world leading export opportunities.**

Links to the notes from the symposium can be accessed here: [Symposium Notes](#) and [Follow-up Thoughts](#)

We invite you to contact the organisers or speakers with any follow-up questions through Matthew Gordon, Secretary PGES at [matthew@pges.org.uk](mailto:matthew@pges.org.uk)