



**IESIS**  
A MULTI-DISCIPLINARY  
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Joint meeting with IESIS and IStructE  
Tuesday, 7<sup>th</sup> February 2017

Professor Rebecca Lunn

***Meeting the challenge:***

***Geological disposal of UK higher activity radioactive waste***

**Summary:**

Professor Rebecca Lunn started her talk with an overview of Scottish energy supply and the contribution that different types of energy make to overall consumption. Becky outlined the constraints and issues affecting these different types of energy.

She then went on to talk about the definitions of types of radioactive waste and their origins.

She summarized the problems of electricity generation in Scotland, particularly with respect to closures of the current nuclear fleet.

She discussed the process of selecting and licensing geological disposal facilities and the levels of safety that are required. She discussed the positive engagement there has been in Sweden in their selection and development of a geological disposal site. The underpinning safety concepts of engineered disposal facilities in different rock types were discussed in depth. Becky showed how geological features and materials were used to enhance the long-term safety and stability of the disposal facility.

She discussed recent controversies with siting a geological disposal facility in the UK and the process of local decision making. She examined and refuted claims made about safety and radionuclide migration at a previously proposed location for geological disposal in the UK.

Becky rounded off her fascinating talk with a summary of the current status of the UK's radioactive waste and the challenges facing us all, as we seek to safely dispose of it.

**Professor Lunn**

Professor Lunn researches the development and implementation of engineered barriers for nuclear decommissioning and waste disposal, for which she has received national recognition and prestigious awards. She has been a long-term member of several UK and Scottish Government Independent Advisory Committees on topics ranging from Geothermal Energy Prospects to Radioactive Waste Management. She leads two multi-partner research consortia in nuclear waste disposal and decommissioning. In 2015, she was elected an Outstanding Woman of Scotland by the Saltire Society for her contributions to research and for her support for women in engineering .

