



DE-RISKING GEOHAZARDS IN THE ENERGY TRANSITION (CHALLENGES, SOLUTIONS AND FUTURE RESEARCH DIRECTIONS)

4TH - 5TH DECEMBER 2025

The Geological Society, Burlington House,
Piccadilly, London

The energy transition aims to reduce greenhouse gas emissions from energy quickly and sustainably. Yet, geohazards pose major risks to areas, and projects, which are key for a sustainable energy transition. Sub- and near-surface fluid flow and unfavourable geotechnical conditions usually compound this risk, and require multi-disciplinary approaches for their complete de-risking.

This 2-day conference aims at presenting to a wide audience of geoscientists, engineers and energy investors, the best practices that successfully de-risked prospects at the forefront of the energy transition. The focus of the conference is on the solutions adopted in such prospects, not only on the geological issues (the geohazards per se), so that the conference becomes a forum for discussion on best practices, outcomes, and limitations of particular approaches to de-risking.

We welcome contributions focusing on geoenenergy solutions in its broadest sense, including renewable energy, subsurface storage sites (CO₂, hydrogen, nuclear waste), geothermal heat, and those prospects where natural gas and hydrogen are being produced as a transitional fuels.

Main Themes

- **Techniques for the assessment of potential natural and environmental hazards** – a session focused on current and future approaches to assessing geohazards. Also important to the session are geomechanical containment and operation risks.
- **The economics of hazard-prone regions with geoenenergy resources** – geopolitical and legislative approaches to geohazard management. A session focused on the economics of the energy transition and how it can be accelerated.
- **Case studies in tectonically active regions** – energy resources vs hazard vulnerability. Seismic and environmental risks in tectonically active regions.
- **Natural and induced seismic hazards** – a session focusing on geological vs locally induced risk. It focuses on the perception of geohazard by local populations and social licensing aspects of the energy transition.

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