

The role of the subsurface and geoscientists in enabling a successful energy transition

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In order to be able to avoid the worst impacts of climate change dramatic reductions in greenhouse gases across all parts of society are required today and through the next several decades. Achieving those reductions will require massive efforts and focus from societies, industries and governments around the world. It will result in the largest change in energy and industrial infrastructure seen within recent times. Low carbon energy sources such as offshore wind and geothermal will have a key part to play, as will energy carriers such as hydrogen. Energy storage for both stationary and mobile devices are critical in enabling the widespread transition to a more electrified and renewably powered world. Each of those solutions involves the subsurface and needs geoscience insights. As well as these low carbon energy solutions the permanent removal of CO₂ via CCS, BECCS and DACCS is also key in driving down global emissions. In this presentation we will discuss the scale of growth and the role of geoscience in delivering these key goals.