

PRESS RELEASE

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UK and US geoscientists forge special relationship to tackle world's energy challenge

Some of the world's finest geoscientists from both sides of the Atlantic have joined forces to set a course for scaling up the world's ability to decarbonise its energy supply. The move follows a two-day workshop coordinated in partnership with the UK Science & Innovation Network, the Natural Environment Research Council, the British Geological Survey, and the Renewable and Sustainable Energy Institute at the University of Colorado.

During the workshop held in Boulder, Colorado, some 30 researchers, funding agents, policy-makers and regulators pooled their expertise to explore how geoscientists can accelerate the transition to environmentally safe and affordable energy production.



US and UK geoscientists at the end of a two-day workshop at the University of Colorado's Renewable and Sustainable Energy Institute, exploring shared research interests and capabilities in geoenergy and geoen지니어ing.

The cross-disciplinary group scoped out shared research interests and capacity in efforts to combine US and UK capability to deliver on the development of new technologies and knowledge of the sub surface environment.

The commitment endeavours to further the sharing of vital geological data, test facilities and expertise; underpinning efforts across industry, regulation and government to transform global energy production.

Prof Mike Stephenson of the British Geological Survey said:

“There are potential energy technologies on the horizon: early ideas which need research to prove whether they can help to solve the energy challenge. Public science has a role in determining whether these technologies are feasible, sustainable parts of a decarbonised energy supply. This is work that wouldn’t be done if it were left to industry alone.”

Jerry Boak from the Oklahoma State Geological Survey said:

“We don’t have a refined enough understanding to elicit the fundamental principles and physics of how the geological system works world-over. There are a number of substantial geological laboratory sites across the US and the UK now where we have the opportunity to examine datasets and undertake testing that begins to articulate the big geological rules that can enable progress to be made.”

Prof John Underhill from Scotland’s Heriot-Watt University said:

“The research community on both sides of the Atlantic has established a series of testbeds and hold expertise vital for the future of the planet. This could be in carbon storage, hydrogen storage, geothermal energy systems, using the underground environment as a battery heat source, new sensor development or regulatory requirements.”

Lauren Boyd, Geothermal Programme Lead from the US Department of Energy, said:

“Wider collaboration could accelerate our ability to progress shared research and capacity in an effort to examine technical interests in the subsurface energy space and combine US and UK capability to develop and commercialize these technologies in the long term.”

Professor Kristy Tiampo, director of CIRES Earth Science and Observation Center at the University of Colorado said:

“The recent investments in subsurface geological laboratories in both the US and UK provide an unprecedented opportunity for collaboration, providing new insights into and understanding of subsurface energy processes and systems.”

Professor Zoe Shipton from Strathclyde University said:

“The UK Government has recently invested £31 million to develop two highly-instrumented borehole arrays with capabilities for international geoscience researchers to test and understand potential energy technologies and facilitate new research. One of the UK Geoenergy Observatories is currently being drilled in Glasgow, Scotland, with a planning application now submitted for another observatory in Cheshire, England.”

The working group has committed to mapping out a route forward to combining expertise, data, and laboratory field sites that will enable a step-change in geological understanding. A first report is now being prepared to determine the first steps.

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For further details or to arrange media interviews please contact:

Cristina Chapman, British Geological Survey, Keyworth, Nottingham, NG12 5GG

Email: crisc@bgs.ac.uk

Mobile: + 44 (0)7970 229792

British Geological Survey



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The British Geological Survey (BGS) is a world leading applied geoscience research centre that is part of UK Research and Innovation (UKRI) and affiliated to the Natural Environment Research Council (NERC). BGS core science provides objective

and authoritative geoscientific data, information and knowledge to inform UK Government on the opportunities and challenges of the subsurface. It undertakes national and public good research to understand earth and environmental processes in the UK and globally. The BGS annual budget of approximately £60 million pa is funded directly by UKRI, as well as research grants, government commissions and private sector contracts. Its 650 staff work across the UK with two main sites, the head office in Nottingham and Lyell Centre, a joint collaboration with Heriot Watt University in Edinburgh. BGS works with more than 150 private sector organisations, has close links to 40 universities and sponsors about 100 PhD students each year. Please see www.bgs.ac.uk.

UK Science & Innovation Network



UK Science & Innovation Network

Science and innovation play an important role in encouraging prosperity and growth through the Science and Innovation Network (SIN). The UK is a global leader in science and innovation. International collaboration is essential to maintaining the excellence of the UK's research base and the competitive advantage of our innovative businesses, for filling capability gaps and for ensuring value by leveraging international resources. Maintaining our science excellence (and our reputation) and supporting innovation ensures the UK is a partner of choice, and helps UK companies with ambitions for rapid global growth. The Science and Innovation Network (SIN) has approximately 110 officers in over 40 countries and territories around the world building partnerships and collaborations on science and innovation. SIN officers work with the local science and innovation community in support of UK policy overseas, leading to mutual benefits to the UK and the host country.

Renewable and Sustainable Energy Institute (RASEI)



RASEI (pronounced RAY-see) is a joint institute between the University of Colorado Boulder (CU-Boulder) and the National Renewable Energy Laboratory (NREL) addressing important, complex problems in energy that require a multidisciplinary, multi-institutional approach. Its mission is to expedite solutions that transform energy

by advancing renewable energy science, engineering, and analysis through research, education, and industry partnerships. RASEI benefits from the strengths of its partner institutions. CU-Boulder is a premier institution for research and education, and its broad spectrum of capabilities and disciplines contributed to its placement of eight in research citation output among U.S. institutions of higher learning (Science, Nov. 2010). NREL is the only national laboratory solely dedicated to advancing renewable energy and energy efficiency technologies from concept to commercial application.



Natural Environment Research Council



NERC - the Natural Environment Research Council - is the driving force of investment in environmental science in the UK. NERC advances the frontier of environmental science by commissioning new research, infrastructure and training that delivers valuable scientific breakthroughs. We do this because understanding our changing planet is vital for our wellbeing and economic prosperity.

We invest public money in world-leading science, designed to help us sustain and benefit from our natural resources, predict and respond to natural hazards and understand environmental change. We work closely with policymakers and industry to make sure our knowledge can support sustainable economic growth and wellbeing in the UK and around the world.