



# PRESS RELEASE

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## GLASGOW GIVES WARM WELCOME TO GEOTHERMAL HEAT RESEARCH

Glasgow City Council and South Lanarkshire Council have approved plans to develop a world class geothermal research observatory in the east end of the city. Work will begin on site this autumn (2018).

The research at the Observatory aims to contribute to an understanding of the potential for warm water in disused coal mines to be used for renewable heat.

The observatory is one of two sites proposed in the £31 million UK Geoenergy Observatories investment led by the Natural Environment Research Council (NERC), the UK's leading funder for environmental sciences, and the British Geological Survey (BGS), the UK's principal provider of impartial geological evidence since 1835.

The Glasgow Geothermal Energy Research Field Site will enable the UK science community to study the geothermal environment just below the Earth's surface.

Co-Director of the Lyell Centre, BGS (Scotland), Tracy Shimmield said: "This investment will further our understanding of how our former industrial legacy could be utilised to help support Scotland's heat demands in the future. The Glasgow Geothermal Energy Research Field Site will enable us to better understand this environment, its characteristics, and the potential for warm water within our disused coal mines to be used practically as a source of renewable heat."

Professor Zoe Shipton, Professor of Geological Engineering at the University of Strathclyde, and Chair of the Science Advisory Group for the observatories, said: "One of our biggest climate change challenges is how to decarbonise our heat. We need to develop low-carbon heat sources that are safe, reliable, affordable and close to the consumer. More than likely this means that they will come from below our towns and cities.

"The research at the UK Geoenergy Observatory in Glasgow will contribute a vital body of evidence on what the potential solutions are and how to do them safely and with minimal impact on the environment."

UK Government Science Minister, Sam Gyimah said: "Clean growth and innovation go hand in hand, so as part of our modern Industrial Strategy we're investing £31 million into projects like this which could transform our national network of derelict coal mines into valuable low carbon sources of energy.

"Reusing deep mineshafts to create the power to drive growth today will help to reinvigorate local economies, creating new high-skilled jobs in traditional mining communities."



The field site will feature a number of boreholes of various depths, which will enable research into the area's geology, underground water systems and the potential for mine water geothermal heat. Measurements will be taken from the boreholes, such as temperature, water movement and water chemistry. Environmental baseline monitoring of near-surface chemistry, gases and waters will also be measured. The research will be carried out over an extended period of time, around 15 years.

The observatory will be open to the whole of the UK science community to undertake research. Continuous data from state-of-the-art sensors will feed from the boreholes to an online portal that will be open, free and accessible to the public, government, regulators, academia, and industry.

NERC Director of Research and Innovation, Professor Tim Wheeler said: "The knowledge that the UK Geoenery Observatories project will generate will contribute to the responsible development of new energy technologies both in the UK and internationally.

"The observatory will allow independent, rigorous and replicable observations of subsurface processes. The project will improve our ability to observe and monitor subsurface activities as well as to maximise their efficiency and reduce their environmental impact. It will contribute to developing and investigating new energy and bringing it to market."

Pauline Elliott, Head of Planning and Economic Development, South Lanarkshire Council said: "The Council is committed to working with our partners and local communities to promote sustainable development and move towards a low carbon economy. This innovative project by the BGS is a ground-breaking opportunity to explore the potential of geothermal energy from the area's mining legacy and contribute to renewable heat resources. We look forward to continuing to work with the BGS in the development of this project."

Councillor Anna Richardson, City Convener for Sustainability and Carbon Reduction at Glasgow City Council, said: "We can all look forward to the creation of this exciting geothermal observatory in Glasgow, which will explore how we can use natural resources to supply heat to the city in an environmentally-sustainable way. If the observatory's research findings show that we can old use mine workings to generate heat, then we will enjoy substantial economic, environmental and social benefits from the project as Glasgow's past powers its future."

Ian Manson, Chief Executive of Clyde Gateway said: "We have been working alongside BGS over the past two years with the aim of having the Clyde Gateway area established at the forefront of this cutting-edge scientific research and it is great news that the project will be getting underway this year.

"Clyde Gateway is committed heavily to making use of alternative renewable energy solutions within developments across our communities and we are very hopeful that this important research will eventually lead to us being able to promote geothermal as a viable and environmentally-friendly option."

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**Notes for Editors**

**British Geological Survey**

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](http://www.bgs.ac.uk).

**The Natural Environment Research Council**

NERC is the UK's main agency for funding and managing research, training and knowledge exchange in the environmental sciences. Our work covers the full range of atmospheric, Earth, biological, terrestrial and aquatic science, from the deep oceans to the upper atmosphere and from the poles to the equator. We coordinate some of the world's most exciting research projects, tackling major issues such as climate change, environmental influences on human health, the genetic make-up of life on Earth, and much more. NERC is part of UK Research & Innovation, a non-departmental public body funded by a grant-in-aid from the UK government.

**The UK Geoenergy Observatories**

The UK Geoenergy Observatories will establish new centres for research into the subsurface environment and provide opportunities to research how natural processes can control resource availability, and how natural resources can be used responsibly for present and future generations. The knowledge they generate will contribute to an understanding of new low-carbon energy technologies both in the UK and internationally. The capital project is NERC's response to the British government's announcement in the 2014 Autumn Statement that it would create world-class subsurface energy research test centres through NERC, operated by the British Geological Survey.