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A new mine water geothermal research facility: the UK Geoenergy Observatory in Glasgow, Scotland

A new subsurface mine water geothermal research facility, part of the UK Geoenergy Observatories, is being constructed in the Clyde Gateway area of Glasgow City, UK. The facility will enable scientists to take forward research that is vital to understanding the role and potential of abandoned mine systems as heat source/sink, such as integration into district-wide heating/cooling networks, the risks involved in mine water energy developments and the environmental management regulation needed. By reducing subsurface uncertainty associated with these systems and by providing a test site for new technologies, the project aims to encourage the widespread development of coal mine geothermal resources in areas close to former coalfield communities. In 2019, baseline and continuous monitoring data from the Observatory boreholes will start to become available via an online portal. This talk will describe the rationale for the research facility and design, summarise the planned data acquisition and offer a first glimpse at some of the data obtained to date.

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