

BGS response to Scottish Government consultation on coal

The British Geological Survey (BGS) is a world leading applied geoscience research centre, which provides objective and authoritative geoscientific data, information, and knowledge to inform Government on the opportunities and challenges of the subsurface environment.

Coal resources in Scotland

Scotland has extensive onshore coal resources and a long history of extraction which has left behind an environmental and social legacy. BGS does not have a view on the extraction of coal in Scotland, but it can contribute to informing future decisions through its [‘Mineral Planning Factsheet’ on Coal](#). Revised in 2021, this factsheet provides an overview of coal resources in Scotland in the context of the broader UK endowment. It also provides an extensive overview of issues such as trade, economic importance, transport and regulation with the intention of informing the land-use planning process in all the UK nations.

Legacy of coal extraction

There are a number of former surface (opencast) sites in the Central Belt which, through careful restoration, are being [transformed from environmental liabilities into assets](#) for local communities. This includes restoration to encourage wildlife and habitats, leisure activities, geological education and/ or renewable energy.

Geothermal energy from former underground coal mines

Decarbonisation of heat in our homes and businesses is an essential step towards meeting net zero targets. In Scotland, historic coal mining has left a legacy of flooded, abandoned mines throughout the Central Belt. The water in these mines presents an opportunity for clean heat energy to contribute towards a sustainable future.

The [BGS Glasgow Observatory](#) is a research facility designed for investigating this shallow, low-temperature, mine-water heat energy and potential heat storage resources. The observatory site is typical of towns and cities with a post-industrial urban and coalfield legacy. Towns and cities are where the greatest demand for decarbonising heat lies.

Mine-water heat abstraction is a technology that is proven but not widely realised. The observatory enables research into the questions that remain about this heat source, from size and sustainability to environmental impacts.