

Heat from the deep: research gets funding

Scientists to explore Fife geothermal energy feasibility

BY HANNAH RODGER

RESearchers in Fife are to investigate the possibility of heating homes and businesses using water from rocks deep under ground.

The Guardbridge Energy Centre, run by St Andrews University, will carry out the feasibility study on geothermal energy, funded by the Scottish Government.

Scotland could benefit from a significant amount of renewable heat generated by the barely-used resource, reducing greenhouse gas emissions with a low carbon heat source.

The Fife project is one of five across the country looking at geothermal energy, and will benefit from a share of £234,025 from Holyrood's Geothermal Energy Challenge fund.

Researchers will look at the practicalities of getting the water from deep sedimentary rocks, and see if there is a business case for geothermal heat.

Lead researcher Dr Ruth Robinson of St Andrews University, said: "Extracting geothermal heat from sedimentary rocks is similar to

getting drinking water out of the ground, except in this case the water is warm enough to be used for heating.

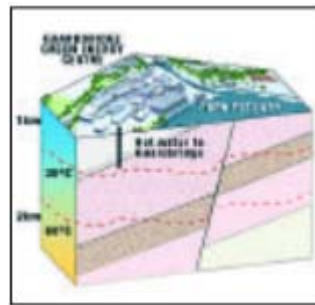
"This feasibility project will investigate if there is a business case to explore for geothermal heat, and if feasible, the technological developments arising out of this project could be used for similar projects across Scotland."

A team from Fife Geothermal – made up of staff from the British Geological Survey, Fife Council, energy firm Town Rock Energy Ltd and environmental consultants Resource Efficient Solutions Ltd – will work together on the project with St Andrews' department of Earth and Environmental Sciences.

The university's executive director for Guardbridge, Ian McGrath said the facility could become an important economic hub for the area due to its multiple uses.

He said: "This is an exciting project, the potential to heat buildings from warm water underground is one of many renewable energies being considered for Guardbridge.

"As one of Europe's leading research institutions, we



encourage innovative concepts in renewable energy and wish Fife Geothermal every success.

"We believe the diverse range of potential uses for Guardbridge has the capacity to re-establish this huge site as a key economic centre in Fife."

Local councillor John Wincott said having reliable, affordable energy was important for businesses and local residents. He added: "Crucially, heat makes up over half the energy we use, so Fife Council is keen to support work to find local sources of renewable heat.

"Fife looks a good area for geothermal heat – that is basically hot, wet rocks – that could potentially supply the heat source to provide hot water

and heating to local homes and businesses.

"We are therefore delighted to be a member of the Fife Geothermal group, and to be a part of one of only five projects to secure funding from the Scottish Government to investigate opportunities around Guardbridge."

Along with the Fife project, another four have been given a share of the funding from the Scottish Government including Aberdeen Exhibition and Conference Centre.

The venue will look into the feasibility of installing a deep geothermal single well system.

Researchers in Polkemmet in West Lothian will look at generating geothermal heat for new social housing in the area from mineworkings, while a project in Hartwood, North Lanarkshire will see a fully operational minewater geothermal heating system developed.

Finally in Aberdeenshire, scientists will explore the viability of adding geothermal energy from rocks to the existing renewable heat network already serving the local communities near the Hill of Banchory.

