

Study looks at using geothermal energy to heat homes and businesses

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UNDERGROUND thermal water sources could be used to heat homes and businesses around Scotland if a new feasibility study in Fife is a success.

A green energy centre run by the University of St Andrews is to investigate the possibility of heating buildings using warm water recovered from sedimentary rocks deep below the ground.

The university is lead partner in a Scottish Government funded project based at the Guardbridge Energy Centre, which it operates.

Experts hope geothermal energy could provide significant amounts of renewable heat for Scotland, helping to reduce greenhouse gas emissions with a low carbon heat source. The project will establish whether such geothermal heat sources offer a financially viable resource.

Dr Ruth Robinson, the lead for the project at the University of St Andrews, 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."

Councillor John Wincott, sustainability champion for Fife Council, said the council itself could make savings if the scheme is a success: "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."

University of St Andrews executive director for Guardbridge Ian McGrath said the project was just one of the renewable energies being explored at the industrial site, which has previously housed a distillery and paper mill.

"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," he said.

St Andrews University is investing £25 million at the site, five miles west of St Andrews, to generate power through clean biomass and pump hot water four miles underground to St Andrews to heat and cool its labs and residences. The Guardbridge scheme aims to help St Andrews become the UK's first carbon-neutral university.