

Veolia partners with Star Energy to develop large scale geothermal projects to decarbonise energy

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Europe's decarbonising energy leader, [Veolia](#) has signed a memorandum of understanding with Star Energy, a company that is making significant strides in harnessing geothermal energy. The new partnership will help to deliver the UK's net zero goals by using the constant, reliable, renewable and low-carbon energy source from the ground. This geothermal energy will replace the fossil fuel energy that is currently used to supply heat to district heating schemes, commercial buildings, hospitals and education campuses.

As almost a third of the final energy consumed in the UK is used as heat in the domestic, commercial and public sectors, resulting in over 40% of the UK's carbon emissions, there is an urgent need to tackle carbon emissions from heat if the country is to meet its net zero goals. Geothermal heat is more energy efficient than many low-carbon alternatives, requires a much smaller surface footprint, will offer significantly greater longevity and is a potentially lower-priced solution. As a result of the lower electrical power needs of geothermal systems, they offer a solution insulated from power pricing and, in places where alternative electrified solutions like electrical heating or high power heat pumps are more difficult to connect due to insufficient grid capacity, they provide a low carbon alternative.

Working together, Veolia and Star Energy will develop geothermal solutions using advanced modelling and simulation, hydrogeological and seismic studies, and access to geothermal heat using directional drilling. The systems will utilise proven technology in operation in many parts of the world, with demonstrable environmental and end user benefits. In many cases the systems can be attached to existing customer heating networks with minimal need for changes.

John Abraham, Chief Operating Officer, Industrial, Water & Energy UK, Ireland & Nordics, Veolia, said: “Veolia has a proven track record of delivering carbon savings through district heating, and our plan is to increase the number of district heating schemes in the UK – aligned with our global GreenUp strategy. So we particularly welcome this new partnership that will be able to deliver significant carbon savings in a sector where delivery can be complex. We know that geothermal energy is attractive, both from an economical and emissions perspective, when compared to other renewable and fossil fuel solutions. By working together we will be able to deliver the significant benefits of low carbon heat that is needed across a wide range of domestic, commercial and public sector applications.”

Ross Glover, Chief Executive Officer, Star Energy said: “Star Energy is playing a key role in the UK’s transition to sustainable and predictable heat provision, and geothermal has an important role to play in the UK’s energy transition by providing a home-grown, predictable, renewable heat option for businesses and households, contributing to the Government’s 2050 net-zero ambitions. We look forward to working with the Veolia teams, and developing new projects using our unique expertise, gained over decades in the energy sector. Through partnerships such as this, we fully expect our geothermal business to grow significantly as it delivers to customer requirements to secure and decarbonize their energy supply.”

Veolia’s specialist heat network team delivers optimised, commercially viable, and technically robust solutions gained through the experience of designing and installing thousands of kilometres of networks across many prestigious and technically demanding projects. In the UK Veolia currently manages energy plants and networks across more than 50 sites and operates over 120 community heating schemes. Globally the company currently operates around 600 district heating networks covering 7,000km of heat mains.