

Ground source installation uses lake to generate heating and hot water

Finn Geotherm have installed an innovative ground source heat pump system at a detached house in The Broads, Norfolk. The system harvests energy from the homeowner's lake for heating and hot water.

With a half-acre lake in the garden, the new heating system for the five-bedroom house near North Walsham utilises the property's natural assets and negates the need for fossil fuels.

Homeowner John Sawyer, explained: "My existing oil boiler needed replacing. With no gas in the area, I was looking for a sustainable, cost effective solution. I did a lot of research into various heating options and found ground source was ideal, particularly as I could use the lake in my garden to house the ground loop."

Finn Geotherm specified and installed a Lämpöässä Vmi 14 ground source heat pump connected to two 250 metre sections of ground loop arranged in slinky coils and submerged in the lake, which is 50 metres from the house. A 480 litre Lämpöässä TV thermal store supports the central heating, with the ability to supply 240 litres of domestic hot water in one delivery. The system also has the capability to produce an additional 125 litres of hot water if needed – for example, when guests are staying.

With John often working from home, the system is ideal as it ensures the house is warm throughout day. The heat pump is also linked wirelessly to his router, giving him control over the heating from anywhere in the world.

"I wanted a system which could easily meet our current demands but also had the capability to cope with any future extensions to the property," said John. "The heat pump system is ideal for our requirements - it's both sustainable and cost effective and the house is always warm. Finn Geotherm provided us with fantastic service and were extremely knowledgeable, which was very reassuring, especially with a more bespoke project such as ours which used the lake."



Key benefits:

- Consistently warm home
- Utilises the property's assets
- Future-proof, sustainable system
- No impact on the appearance of the property
- Government payments through RHI

