

# CASE STUDY: GROUND SOURCE HEAT PUMP, UNDERFLOOR HEATING & SOLAR PV INSTALL IN NORTH WALES

Embarking on the renovation of a stone-built cottage in North Wales and with a desire to reduce her own carbon footprint, Adrienne Stratford was keen to employ renewable energy heating as part of the work. Following a recommendation from a friend's builder, Ms. Stratford contacted Ice Energy to find out more about ground source heat pumps and how they could benefit her.

## What prompted you to investigate renewable energy systems?

"There was no previous heating in the cottage other than an inefficient, solid fuel stove and mains gas was not available" explains Adrienne. "I was very conscious of reducing my own carbon footprint as well as wanting to move away from fossil fuels as much as possible because of my fears about the escalating fuel costs and the environmental damage, so heat pumps appeared to be a perfect solution."

## How did you find the installation process?

"The groundworks for the heat pumps were more extensive, messy and time-consuming than necessary due to the builder's refusal to carry them out in a drier summer period (the heavy clay boulder soil becomes water-logged in the winter). However, the rest of the installation including the plumbing works and commissioning of the heat pump presented no major problems at all."

## How have you found living with heat pumps?

"Very easy, delightful and comfortable - I have adjusted the settings only occasionally to suit our needs."

## How would you sum up the benefits of heat pumps for you?

"I have found heat pumps to be relatively cheap, very efficient, easy to run and virtually maintenance-free providing me with a comfortable house temperature (especially when coming home after being out all day) and I have constant hot water. I also don't have the worry of oil or LPG deliveries which are difficult in the area due to the narrow lanes."

## KEY FACTS

Property type:  
Detached, stone construction cottage in North Wales built circa 1900

Product installed:  
Greenline HT+ C6 ground source heat pump with 100 metre slinky ground loop, underfloor heating & 2.15kW PV system

Distribution system:  
Underfloor heating (ground floor and 1st floor bathroom, single 1st floor radiator)

Installation date:  
Heat pump commissioned August 2009

Cost savings:  
No previous heating but all electricity consumption for heating, hot water & cooking averages 15-20 units a day in winter and 8-10 units a day in summer

## What has the service been like from Ice Energy and would you recommend them to others?

"The service from Ice Energy has been extremely good and I have already recommended them to others."

If you would like to find out more about the benefits of heat pumps, underfloor heating or solar PV, you can contact our dedicated sales

advisors FREE on **0808 145 2340** or visit

**[www.iceenergy.co.uk](http://www.iceenergy.co.uk)**

