

MICROGENERATION

Ground Source Heat Pumps



What are they?

Ground source heat pump systems extract heat from the earth for use in a building. Ground source heat pump units are usually placed in an outbuilding or utility area and about the size of a fridge freezer.

How do they work?

Ground source heat pumps convert low grade heat (not very warm air) from a wide surface area into high grade heat (hot air) for a smaller space. Coils are installed horizontally in shallow trenches beneath the surface of the ground or vertically in deeper boreholes. Fluid circulating through the coils collects heat and then transfers it into the property. Systems typically provide heat for radiators, under-floor heating systems or domestic hot water.

Benefits

- > Reduce your heating bills
- > Protect yourself against rising energy costs
- > Reduce your CO₂ emissions

What are the potential savings?

According to the Energy Saving Trust, the potential annual savings, in a typical 3 bedroom semi-detached house could be up to:

> **£610**

What are the typical costs?

If you were to have this measure installed without Green Deal, this would typically cost you upfront:

> **£9,000 - £17,000**



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How can I benefit from Green Deal?

By taking advantage of the Green Deal, you may receive finance to have these energy-saving improvements installed in your home at no full upfront cost. The savings you make will always be greater than the cost of repayments on the measures installed.

Where and how are they installed?

Ground source heat pump units are usually placed in an outbuilding or utility area due to their size. Sufficient land space will also be required for excavation work to be carried out so that coils can be buried beneath the ground. The amount of space available will determine whether to use horizontal loops or vertical boreholes.

What do I need to do next?

Step 1

Get an energy assessment report completed on your home by an NICEIC Green Deal Advisor.

Step 2

Present your report to a Green Deal Provider who will assess whether to approve the finance on the measures you wish to install and coordinate your Green Deal plan.

Step 3

If approved, the Green Deal Provider can arrange for the installation to be carried out by an NICEIC Green Deal Installer.

Step 4

Once installed, your Green Deal payments will be included as instalments in your energy bill. This will be arranged for you by your Green Deal Provider and your energy supplier.

Will they be suitable for my home?

Ground source heat pumps are only appropriate for properties with a garden or other surrounding land space. The ground also needs to be suitable for digging a trench or borehole and accessible to digging equipment. Combining the installation with other building work is often beneficial to minimise the disruption. Your NICEIC Green Deal Advisor will provide you with impartial advice on the measures most suitable for your home.

Click here to join
or call 0843 290 3518
to find a certified **Green Deal** Advisor, Provider and Installer to start your Green Deal now.