

AONB GUIDANCE – Heat Pumps

Introduction

The Government has set targets to increase energy generation from renewable sources. This is due to growing concerns over the impacts of climate change and the future decline in the supply of fossil fuels. More small-scale generation of heat and power is being encouraged. This ‘microgeneration’ is generally considered to be an installation with a capacity of less than 45kW of heat or 50kw of electricity.

Areas of Outstanding Natural Beauty

Area of Outstanding Natural Beauty (AONBs) are nationally designated areas of great distinctive character and natural beauty. Management Plans for the Wye Valley and Malvern Hills AONBs support the considered use of renewable energy through microgeneration.

Planning Requirements

Ground and water source heat pumps are permitted development within the curtilage of a dwelling house. Air source heat pumps still require planning permission, but it is expected that they will become permitted development as soon as standards and safeguards have been established to deal with noise.

In all cases, we recommend that you contact your Local Planning Authority to discuss whether planning permission is required for your specific proposal and to discuss details of any measures that could be incorporated to mitigate environmental impacts.

The Purpose of this Guidance

The purpose of this guidance is to help you to plan for installing a heat pump in an AONB. Specifically it provides simple advice on ways in which you could help to reduce any impacts on the special features of the area.

Types of Heat Pumps

Ground source heat pumps use a buried ground loop which transfers heat from the ground into a building to provide space heating and sometimes to pre-heat hot water. They act like a refrigerator in reverse to take advantage of heat differences underground and at the surface. Water and air source heat pumps use temperature differences in a similar way to extract heat.

Landscape

- Ground source heat pumps require the installation of underground pipes to act as heat exchangers. There will be potential impacts during construction through the excavation of trenches, but once the ground has been restored there should be no landscape impact.
- The pump should be located within an existing building wherever possible.
- Water source heat pumps will generally have underground or underwater pipes. As with ground source heat pumps the main landscape concern is during construction.
- The heat exchangers required for air source heat pumps may have visual impacts on special landscapes, although this is very unlikely. If possible, consider installing these in secluded spots where they will not be visible from public access land, public rights of way, popular viewpoints etc



Trenching to install a ground source heat pump

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Built Heritage

- Before digging trenches to install ground source heat pumps, you should check with your County Archaeology Service to ensure there are not likely to be any archaeological remains that would be damaged by the works.
- The main issue with the installation of air source heat pumps is the siting of a heat exchanger on the outside of the building. Its location needs to be carefully thought out to avoid detrimental impacts on building, particularly if it is listed or is in a Conservation Area.
- Where the location of a heat pump will affect a Listed Building or is in a Conservation Area you will need to contact your local planning authority as you may need Listed Building Consent and/or planning permission.



A heat exchanger for an air source heat pump

Useful Contacts

Low Carbon Buildings Programme
www.lowcarbonbuildings.org.uk/about/

Planning Portal – www.planningportal.gov.uk/england/genpub/en/1115315124458.html

Heat Pumps Association – www.heatpumps.org.uk/index.htm

UK Heat Pump Network – www.heatpumpnet.org.uk

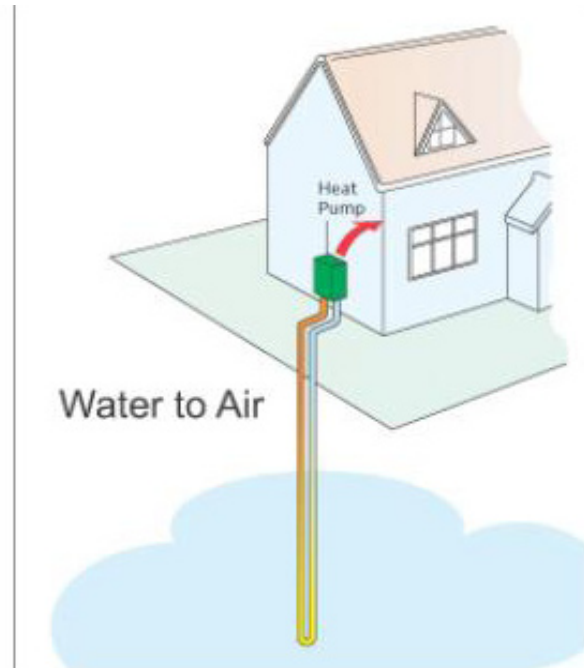
Energy Saving Trust – www.energysavingtrust.org.uk/

Natural England - www.naturalengland.org.uk

Countryside Council for Wales - www.ccw.gov.uk

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A water source heat pump



- Consider design issues such as fixings, colour, reflectivity and size – advice can be sought from the Local Authority Conservation Officer in relation to historic buildings.
- If you are planning to install an air source heat pump you will need to comply with the Building Regulations. Your local authority will be able to advise you. Building Regulations do not cover ground source heat pumps.

Biodiversity

- If the technology you are using will require disturbance of the ground, you should consider whether this will cause damage to a habitat that is of high wildlife value. In such cases you could consider installing the pipes vertically using a borehole.
- Using heat exchangers in water bodies such as ponds and lakes could lead to ecological impacts through localised temperature changes. You should seek specialist advice.
- If the installation you are proposing is within a Site of Special Scientific Interest (SSSI) you should seek advice from Natural England or the Countryside Council for Wales

malvern hills
Area of Outstanding Natural Beauty

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AREA of OUTSTANDING NATURAL BEAUTY
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