

Building Regulations and Renewable Energy

One of the principal aims of the Building Regulations is to conserve fuel and power used in buildings. To ensure that minimum energy performance requirements laid down by these regulations are satisfied when constructing new buildings, it is necessary to demonstrate that the level of Carbon emissions resulting from the provision of heating, hot water, ventilation and internal fixed lighting are acceptable.

Whilst the thermal performance of the building fabric is obviously important in reducing energy usage and Carbon emissions, such emissions can be significantly decreased through the use of renewable energy sources such as solar power, wind turbines and ground source heat pumps. The use of such technologies can not only be good for the environment and the pocket; they can also significantly increase flexibility in the design of new buildings.

If you wish to install renewable energy sources in existing buildings, it is likely that you will be required to give notification of the works under the Building Regulations. In addition, you may well need Planning Permission for your proposals, and you should contact the Planning Department for advice.

Solar Water Heating Panels

These panels absorb the energy from the sun and transfer it to heat water. A solar panel on a roof is likely to require notification under the Building Regulations, depending upon the size and load that the unit will place on the existing roof. You will need to show how the unit is fixed to the roof structure, together with the proposed alterations to any existing heating or hot water system.



Solar Electricity Panels

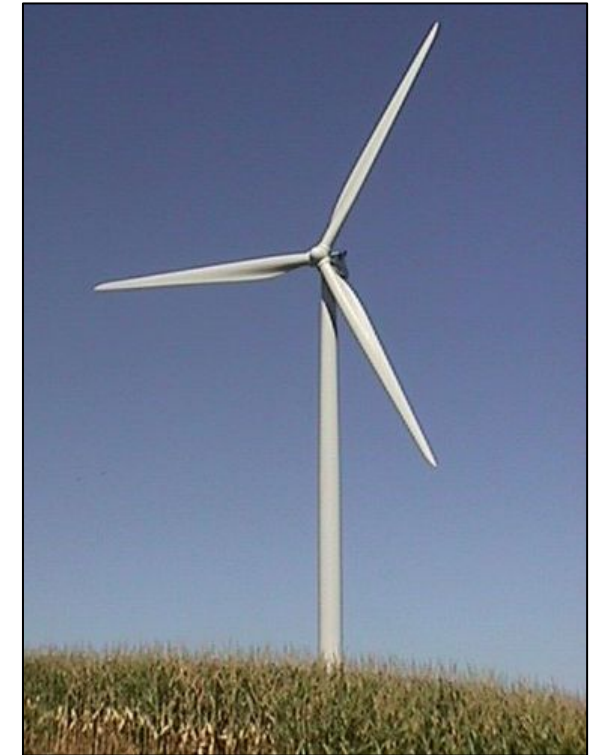
Photovoltaic (PV) panels transform solar radiation directly into electricity. PV systems can be integrated into buildings to generate electricity and for export to the national grid. A photovoltaic cell system on a roof is likely to require notification under the Building Regulations, depending upon the area of the roof covered and how the power they provide is integrated into the existing electrical system.



Wind Turbines

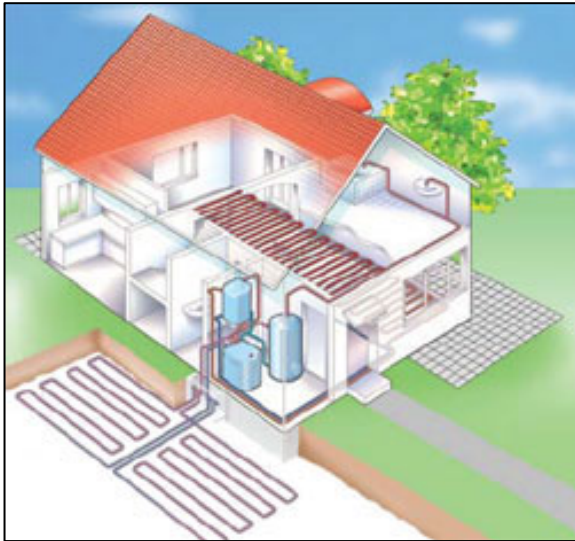
Wind turbine technology harnesses wind to generate electricity. The electricity is then either used for stand alone applications or for export to the national grid.

In most cases a Building Regulations notification will be necessary for the installation of wind turbines on a house, as the size, weight and force exerted on fixing points would need to be considered. The integration of the power they provide into the existing electrical system is also an important consideration.



Ground Source Heat Pumps

When the sun shines on the ground its heat energy is absorbed. Ground source heat pumps extract this energy, to use for space heating. An application under the Building Regulations may be required for the installation of the pump.



Where Can I Find Out More Information?

The following websites may be of interest;

Isle of Wight Council Building Control:

www.iwight.com/buildingcontrol

The Energy Saving Trust:

www.est.org.uk

The National Energy Foundation:

www.nef.org.uk

The British Wind Energy Association:

www.bwea.com

Note:

Persons proposing to carry out building work are reminded that Planning Permission or Listed Building Consent may also be required, and you are advised to contact Development Control for guidance (01983 823552).



Further advice can be obtained from:

Planning Services
Building Control Section
Seaclose Offices
Fairlee Road
NEWPORT
Isle of Wight
PO30 2QS

☎: 01983 823580

E-mail: building.control@iow.gov.uk

Website: www.iwight.com/buildingcontrol

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PLANNING SERVICES