

The Methodist Property Office - Resourcing Mission

Renewable Energy

This information sheet has been produced in order to give managing trustees some background information on this subject. Please bear in mind that you must obtain specialist advice before installing any renewable energy system. The situation is changing quite rapidly, and it is therefore expected that this information sheet will be regularly revised and updated (this first version is Spring 2006).

General points

- Installation of a renewable energy system will probably constitute a property project on the Property Consents website, requiring final consent from your District.
- If your building is 'listed' or in a conservation area, we strongly recommend that you discuss the situation with our Conservation Officer at the earliest stage.
- Planning permission and building regulations consent may be necessary (and possibly other consents, eg electricity regulations)
- For specialist advice, try contacting your quinquennial inspector (who will already be familiar with your building), or the Royal Institute of British Architects (RIBA), tel 020 7307 3700, www.architecture.com, or the Royal Institution of Chartered Surveyors (RICS) tel 020 7222 7000, www.ricsfirms.co.uk.

Grants

The government has just announced a 'Low Carbon Buildings' programme, offering grants to community organisations for installation of insulation, energy efficiency measures and micro-generation schemes. Full details have not yet been announced, but it is believed that the first applications will be possible in May or June 2006 – see 'contacts', below. You will need to make an application on behalf of your local church, and unfortunately the Property Office is unable to offer individual advice.

As with all property projects, you may also be able to obtain non-government grants, either from Methodist sources or from other organisations – we suggest you contact our funding section to discuss the possibilities (mpfo@property.methodist.org.uk) – see also 'contacts', below.

General energy efficiency

Most trustees will already be aware of straightforward energy efficiency measures which can be easily undertaken; eg, insulation above ceilings or in lofts etc, low energy light bulbs, and cavity wall insulation. Good programmer controls on your heating system are also essential. Double glazing may also be worth considering.

Specialist advice is recommended in order to avoid common pitfalls – eg, increasing insulation in roof spaces must be accompanied by adequate ventilation in order to avoid condensation.

Renewable energy systems

Several systems are now available, and it is only possible here to give the briefest of introductions. As noted above, it is essential that trustees obtain specialist advice.

It is possible to have a system which can feed electricity back into the national grid, and which can therefore be sold back to the electricity company (sometimes known as 'micro-generation' systems).

Solar photovoltaics (PV)

PV systems are roof panels (also now available as units that resemble roof tiles) that use solar energy to generate electricity.

Costs vary between £4,000 to £9,000 per kW installed (at least 7sq.m of panel is needed to produce 1kW).

PV panels require only daylight – lack of sunlight or clear skies is not necessarily a problem, but orientation and shading is crucial. There are no moving parts, so reliability should be good, and a 20 year lifespan is anticipated.

Solar water heating

Solar collectors are tubes containing water, which when heated by the sun to a sufficiently high temperature, circulates through the domestic hot water cylinder. This can provide most domestic hot water needs during summer months, and about 50% of the total on an annual basis. Little maintenance is needed. Costs are around £2000 to £4000 for a manse.

Wind turbines

The UK has 40% of Europe's total wind energy, but we have made very little use of this. Small-scale wind turbines are now becoming available, and total installation costs are considered to be around £3000 to £5000 per kW generated. The necessary battery should last 6-10 years, the turbines up to 20 years. The obvious disadvantage is the inability to generate electricity during low wind speeds.

Other systems: several other systems are becoming available, such as underground heat storage, bio-mass, and fuel cells.

Bulk Energy Purchase

Several churches have negotiated bulk energy purchase, which can result in considerable savings. This does need to be organised locally (ie not by the Property Office). It may be feasible to organise a circuit-wide scheme, or possibly one involving several circuits. Commercial organisations claim to be able to negotiate the best deals, and while we do not recommend any particular firm, the Church Energy Purchasing Group (0191 276 3579, www.cepg.co.uk) is able to offer help.

Contacts

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Technical officer: Ralph Dransfield
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Conservation officer: Ian Serjeant,
tech-cons@property.methodist.org.uk

Funding/grants:
mpfo@property.methodist.org.uk

See also the Operation Noah website:

www.operationnoah.org

Methodist/URC Environmental Network: contact Gwen Jennings: grad.jennings@virgin.net

Energy Study Pack: available from Methodist Publishing House (ref PA 131), price £3.50; Email: sales@mph.org.uk

Dept of Trade & Industry (dti)

Low Carbon Buildings grant programme: tel helpline: 0800 915 7722

www.lowcarbonbuildings.org.uk

Other organisations

Energy Saving Trust: www.est.org.uk

Carbon Trust: www.thecarbontrust.co.uk

RIBA: www.architecture.com, try also scrolling down to 'sustainability' on the left-hand menu.

WREN (Waste Recycling Environmental Ltd) 'Green Guide': www.wren.org.uk

Centre for Alternative Technology (CAT): www.cat.org.uk

Christian Ecology Link and Ecocongregation are multi-denominational organisations for those concerned about the environment:
www.christian-ecology.org.uk;
www.ecocongregation.org

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