

The Methodist Property Office - Resourcing Mission

Environmental Audits

<i>A list of issues that could be considered in an environmental audit (by no means an exhaustive list):</i>	Yes	No	Intend to do with the next 12 months
<p>1.0 Carbon Footprint Have you worked out your carbon footprint?</p> <p>It can be an interesting exercise to work out your own 'carbon footprint' – ie, the amount of carbon dioxide (CO₂) you emit into the atmosphere annually (carbon dioxide being the primary problem in global warming). Full details including calculations can be found on www.carbonfootprint.com. Although this calculator is intended for you as an individual, rather than your church, you may find it helpful.</p> <p>The UK government aspires to reduce CO₂ emissions by 34% by 2020 – something in which we all need to play a part. 80% of CO₂ emissions are from industrialised countries.</p> <p>Are you trying to reduce the amount of your 'footprint'?</p>			
<p>2.0 Energy 2.1 Energy generally</p> <ul style="list-style-type: none"> • Do you regularly review energy costs, meter readings etc, and switch supplier if necessary? • Do you ensure that your electricity supplier is a 'green' supplier (eg Ecotricity or Good Energy)? • Do you switch off equipment when not in use – including stand-by modes and mobile chargers etc? • <i>Remember that air-conditioning is very wasteful of energy and also contributes to climate change, and should be avoided. Natural ventilation is preferable</i> 			
<p>2.2 Investigate use of renewable energy (see Methodist Church information leaflet on renewable energy): Have you considered:</p> <ul style="list-style-type: none"> • Solar collectors to provide water heating (probably the best option)? • Micro-generation (whereby electricity generated from renewable sources is fed back into the national grid, and you are reimbursed accordingly by the electricity company)? • Photovoltaic panel and local wind turbines (<i>although at present not cost-effective and unlikely to generate sufficient electricity to be of significant value, they may have considerable publicity value</i>)? 			

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<p>2.3 Lighting Have you:</p> <ul style="list-style-type: none"> • Fitted energy-efficient lighting units where possible and explored the latest options? <i>Recent energy-efficient lighting units:</i> <ul style="list-style-type: none"> ▪ <i>Are more expensive but last up to 8 times longer</i> ▪ <i>Use much less electricity (as little as 20% compared to traditional bulbs)</i> ▪ <i>Are now available in a variety of designs and are visually much more satisfactory.</i> <p>Do you</p> <ul style="list-style-type: none"> • Ensure unnecessary lighting is switched off (use 'please switch off lights' labels)? • Use time-delay switches, or movement-sensitive sensors for lighting? 			
<p>2.4 Heating Have you:</p> <ul style="list-style-type: none"> • Ensured that room thermostats are properly adjusted, and are in suitable locations? • Replaced outdated boilers (<i>many older gas boilers are only 50% efficient; new condensing boilers are 80%-90% efficient</i>)? • Fitted thermostatic radiator valves to all radiators? • Installed different heating zones to ensure that only parts of the church (eg a meeting room) need to be heated rather than the whole building? • Installed more sophisticated heating controls -eg 7-day programmers and electronic programmers which are accurate to the minute (<i>older programmers are sometimes accurate to only a couple of hours</i>)? • Ensured that your annual service contract includes comment/discussion about energy issues? 			
<p>2.5 Insulation: Have you:</p> <ul style="list-style-type: none"> • Insulated all loft spaces, above accessible ceilings etc, with up to 200mm of insulation? <i>Take care: obtain advice from an architect or surveyor to ensure adequate ventilation to prevent condensation, check that electricity cables are suitably protected, etc.</i> • Insulated hot and cold water pipes, where passing through unheated spaces? • Fitted draught seals around all external doors and windows, also between heated and unheated rooms? <i>Ensure that seals do not make it difficult for elderly people and children to open doors.</i> 			

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<p>2.5 Insulation (continued)</p> <ul style="list-style-type: none"> • Provided draught lobbies? • Added insulation below suspended floors (but ensure adequate ventilation)? • Installed cavity wall insulation; solid walls (generally those built before around 1930) can have insulation added to the inside face, but this must be carefully designed to avoid condensation occurring? <i>In housing, about 35% of the heat loss is through walls.</i> 			
<p>2.6 Double-glazing: Have you considered double-glazing, having regard to the following:</p> <ul style="list-style-type: none"> • unless your church is used for several hours every day, double-glazing is unlikely to be cost effective • <i>double-glazing will reduce draughts, but is unlikely to save any appreciable energy</i> • <i>UPVC is not an environmentally suitable material (see below – timber is better)</i> • <i>Most double-glazing frames need very careful design to be visually suitable for churches</i> • <i>Most double-glazing units last only 15 to 20 years, after which expensive renewal will probably be required</i> 			
<p>2.7 Bulk Energy Purchase Have you considered negotiating bulk energy purchase, which can result in considerable savings? Commercial organisations claim to be able to negotiate the best deals, and while we do not recommend any particular firms, two that are able to offer help are: the Church Energy Purchasing Group (0191 276 3579, www.cepg.co.uk) and Gaia Communications: (01570 422011, email jim@gaia-energy.co.uk)</p>			
<p>3.0 Building work <i>(the building industry is responsible for around 40 % of total UK CO2 emissions)</i> Have you checked with your architect or surveyor</p> <ul style="list-style-type: none"> • To ensure that the design brief includes for an energy and environmental audit • To ensure that materials are from a sustainable source where possible: several products – eg timber – are now marked with approved schemes • To use materials from a local source, and which support local industry • To avoid materials that require energy-intensive industrial production, eg aluminium and steel • To try and avoid situations where the use of sustainable materials (eg timber) involves the consumption of energy by having to be transported over long distances). 			

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<p>3.0 Building work (continued)</p> <ul style="list-style-type: none"> To use recycled materials where possible To use water-based paints (now usually also suitable for external use) To try and avoid chemical treatments for woodworm, dry rot and damp-proof courses. Alternative solutions are often now available. 			
<p>4.0 Fair-trade products Do you use fairly traded food and other products? (<i>The Fairtrade Foundation, Traidcraft and Tearcraft often have local reps who can come and talk to a local church</i>)</p>			
<p>5.0 Waste & Recycling Do you:</p> <ul style="list-style-type: none"> Recycle as much glass, paper and plastic as possible? Use recycled paper? Use electronic communication (eg emails) rather than letters & envelopes Reuse plastic bags when possible - <i>avoid being given new ones while shopping</i> Avoid disposable cups and plates etc (or ensure they are recycled) Try to compost vegetable waste Avoid car journeys to recycling sites Use rainwater from downpipes for watering soft landscaping; avoiding mains water where possible <p><i>Remember that water from wash basins etc can sometimes be recycled and used as 'grey' water for flushing WCs</i></p>			
<p>6.0 Cleaning materials Many cleaning materials contain dangerous chemicals – do you try and use 'green' products?</p>			
<p>7.0 Fridges, freezers and dishwashers Recent models are much more energy-efficient than older ones - have you checked their energy-rating?</p> <p><i>Remember that proprietary drink-vending machines can have a high electricity consumption – avoid if possible</i></p>			
<p>8.0 External areas (churchyards etc) Do you have an ecological policy for these areas; eg:</p> <ul style="list-style-type: none"> no use of pesticides, encourage wildlife, etc have a compost area (see also 'waste' section above) 			

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9.0 Communication and PR Many people are now concerned about climate change and environmental issues – do you publicise what you do? Do you put information in your church magazine, discuss issues in junior church, and contact the local newspaper.			
10.0 Transport This is one of the most difficulty areas to tackle, particularly for older people and in rural areas. Do you try and: <ul style="list-style-type: none"> • Avoid the use of cars – or share car journeys • Travel by public transport or cycle – even better, walk • avoid or rearrange meetings where people have to travel by car from a wide area Transport is the only sector of the UK economy where CO2 emissions have risen over the last 15 years; the average emission per car per year is nearly 2 tonnes of CO2.			

Please remember that building work at your church may require formal consent from your District and/or the Methodist Property Office; always check with us before starting any work.

If your church is a listed building, *any* change to the building or fittings will require formal consent; if your church is in a conservation area, any change to the exterior will require consent

Most of the work will also require building regulations consent from your local authority; external changes may also need planning permission.

References

Methodist Church: www.methodist.org.uk (type 'environmental policy' in search box to see the *Environmental Policy for the Methodist Church*)

Church of England: www.shrinkingthefootprint.cofe.anglican.org

Operation Noah website: www.christian-ecology.org.uk/noah/

Methodist/United Reformed Church Environment Network (Creation Challenge): www.methodist.org.uk/static/econetwork/index.htm

Eco-congregation: www.ecocongregation.org (particularly module 7: greening the cornerstone)

Dept of Trade & Industry (dti)

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

www.lowcarbonbuildings.org.uk

Organisations able to offer help on obtaining the best energy tariff

Church Energy Purchasing Group, tel 0191 276 3579, www.cepg.co.uk

Gaia Communications: tel: 01570 422011, email jim@gaia-energy.co.uk

Other organisations

Energy saving trust: www.est.org.uk

www.est.org.uk/housingbuildings/funding/lowcarbonbuildings

CO2 calculations can be found on www.carbonfootprint.com

Carbon Trust: www.thecarbontrust.co.uk

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

Fairtrade: www.fairtrade.org.uk