



ENGLISH HERITAGE

## Solar Electric (Photovoltaic) Panels and Slates on Listed Places of Worship Guidance Note

### The purpose of this note

Many congregations wish to explore the possibility of generating energy from a renewable source. This can be driven by an ethical commitment to reducing the use of carbon, a financial assessment of potential revenue from current tariffs for energy fed into the national grid or in response to commercial approaches to install generating equipment on a place of worship.

The installation of either solar electric (photovoltaic) panels or solar 'slates' on a building will have a material affect on its external appearance and is therefore very likely to require planning permission. In the case of a listed place of worship it is very likely also to require listed building consent, or equivalent denominational consent.

In the light of rapidly growing interest from congregations English Heritage has prepared this guidance on the installation of solar electric panels and solar 'slates', the most common forms of microgeneration, on places of worship, to help denominational advisory bodies, ecclesiastical and secular decision makers and other consultees in the planning process.

The revised edition of *New Work in Historic Places of Worship* (September 2012) offers advice on forms of microgeneration and issues related to the servicing of historic places of worship.

### The policy context for decision making

The Government's commitment to sustainable development is set out in the [National Planning Policy Framework \(NPPF\)](#). This document makes it clear that there are three dimensions to sustainable development: economic, social and environmental, and that protecting and enhancing the historic environment is as much a part of sustainable development as mitigating climate change. It is clear therefore, that there is a balance to be drawn between the benefits to society in responding to climate change and any harm caused to the heritage asset.

Guidance issued by the Department for Culture, Media and Sport in 2010 (*The Operation of the Ecclesiastical Exemption and related planning matters for places of worship in England*) places a specific duty on denominations to protect the special historic and architectural interest of listed buildings.

Decision makers must satisfy themselves that congregations considering the installation of solar electric panels, solar 'slates', or other microgeneration equipment, have addressed the requirements of the NPPF, which are summarised below.

#### National Planning Policy Framework

Anyone proposing works to a listed building is required to follow the policies set out in the NPPF.




According to NPPF paragraph 128 an applicant should *'describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance.'*

NPPF paragraph 131 goes on to require those assessing applications to take account of the *'the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation.'*

The policy makes it clear at NPPF paragraph 132 that *'When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation'*, and notes that substantial harm to a listed building of any grade should be exceptional.

Where the harm to a designated heritage asset is less than substantial, NPPF paragraph 134 advises that *"this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use."*

English Heritage provides more detailed advice on how to balance the significance and conservation of the historic environment and the need to reduce carbon consumption in the following publications:

-  *Energy conservation in traditional buildings*
-  *Microgeneration in the Historic Environment*
-  *Small-scale solar electric (photovoltaics) energy and traditional buildings.*

All of which can be accessed through:

-  [www.climatechangeandyourhome.org.uk/live/climate\\_change\\_publications.aspx](http://www.climatechangeandyourhome.org.uk/live/climate_change_publications.aspx)  
or by calling Customer Services on 0870 333 1181

There is also Government Guidance on Climate Change:

-  *Planning for Renewable Energy: A Companion Guide to PPS22*
-  [www.communities.gov.uk/publications/planningandbuilding/planningrenewable](http://www.communities.gov.uk/publications/planningandbuilding/planningrenewable)

#### Issues: solar electric panels and 'slates'

Many places of worship have large south-facing roof slopes which present opportunities to generate energy through solar electric panels or solar 'slates'. Such roofs are often highly visible and therefore contribute to the character of the building in its setting. Minimising visual impact is desirable but often difficult and will depend upon the form of the roof and the situation of the building. Where places of worship have shallow-pitched roofs which are largely hidden from view by parapets, or internal roof slopes which cannot be seen from ground level, solar electric panels may be accommodated more easily. It may be harder for other places of worship to find a suitable location which does not harm the building or its setting; possible solutions may be a ground-mounted solar collector or placing equipment on another building.

Solar 'slates' are designed to have a similar appearance to natural Welsh slates, but the difference is usually still detectable to the naked eye and thus has a visual impact. The life-expectancy of solar 'slates' is much shorter than a natural slate roof so the cost of more frequent roof repairs should be taken into account. Solar 'slates' may be acceptable where the roofing material is not part of the building's historic integrity and the existing slates are in need of replacement.

Even when carefully designed and managed, the installation, maintenance and eventual de-commissioning of solar electric panels or solar 'slates' is likely to cause some damage to the existing historic fabric of a place of worship. To mitigate this harm it is, therefore, critical that the means of fixing and the operation of the panels or slates are planned and agreed in advance, whilst also ensuring that their location does not impede rainwater disposal or hinder maintenance work such as clearing gutters.

## English Heritage Guidance

### Advice for congregations

Congregations are advised to:


- Seek advice well in advance of any application for permission to undertake works and before making any financial or contractual commitments
- Always consult with your local authority and denominational advisory body regarding statutory requirements
- Develop an energy strategy for the place of worship and associated land and structures before making any decision about installation of microgeneration equipment.

English Heritage considers an energy strategy necessary in order to demonstrate that other passive energy saving measures - which typically have less impact on historic buildings and without which the benefit of microgeneration equipment cannot be fully realised - have been properly considered and adopted. A strategy will help congregations to decide whether microgeneration equipment is suitable for the place of worship and if it is, what equipment would be appropriate. In the event of consent being sought, the strategy should inform the Statement of Need.

An energy strategy should:

1. Audit existing energy use, consider the energy and carbon embodied in the existing building and in any new equipment and assess the place of worship's current carbon footprint.

Advice on assessing a place of worship's current carbon footprint and creating energy saving routines is available on the *Shrinking the Footprint* and *Creation Challenge* websites:

 <http://www.churchcare.co.uk/shrinking-the-footprint/>

 [www.creationchallenge.org.uk](http://www.creationchallenge.org.uk)

The [www.carbontrust.co.uk](http://www.carbontrust.co.uk) and [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) sites may also be useful.

2. Identify and propose measures to reduce the existing level of energy use through, for example: changes in heating and lighting patterns, improvement of equipment such as boilers and light bulbs, better insulation and the elimination of draughts (without impeding necessary ventilation).
3. Consider the possibility of switching to a 'green energy' supplier.
4. Assess the potential of microgeneration equipment, taking into account:
  - The impact on the appearance of the place of worship and the significance of the heritage asset;
  - The method of fixing: this may cause damage to the fabric of the building, may impact on the maintenance of the building (solar electric panels may impede access to roofs and rainwater goods) or affect roof drainage (fixings through roofs will concentrate rainwater in specific areas of the roof and may result in water penetration);
  - The cost of installation, maintenance, insurance, de-commissioning and removal relative to the benefits gained and savings made; and
  - The projected life and efficiency of the equipment relative to its impact and cost

In general English Heritage advises that it is *“not considered sympathetic to a building’s appearance to have a solar panel or other equipment fixed to any of its main elevations, i.e. the face or faces seen from the principal viewpoint, towards which it is mainly viewed.”* (English Heritage 2008 *Small-scale solar electric (photovoltaics) energy and traditional buildings*) In practice, many places of worship in both urban and rural locations stand in prominent positions and have no single principal viewpoint, but several viewpoints of equal importance.

Recommended reading on improving the environmental performance of listed and historic buildings is:



The Prince's Regeneration Trust 2010 *The Green Guide for Historic Buildings*

### Advice for decision makers

In considering applications decision makers are advised to consider the following:

- Does the Statement of Significance provide sufficient information to enable the proposals to be understood in context?
- What is the visual impact on the significance of the building and its setting?
- Will the fixing of the equipment (including cabling, pipework etc) damage significant historic fabric?
- Has a professional adviser, e.g. architect, been engaged to inform the design, the routing of cables and advise on the technical issues in relation to routing and fixing etc?
- Are the works reversible?
- Does the proposal address the needs of the building and congregation as set out in the Statement of Need?
- Do the proposed panels/slates form part of a wider energy strategy for the place of worship and associated land and structures, which addresses reducing energy consumption and wastage?
- Have other energy saving measures or locations with less impact been considered, implemented or shown not to be suitable?

- Does the proposal have a net environmental benefit?
- Is there a compelling justification for the work?
- If necessary, have proposals for an appropriate level of recording of historic fabric made accessible through the proposed works e.g. essential roof structure, significant local roofing techniques, assembly marks and graffiti, the condition of wall-heads, been presented?
- What conditions relating to the removal of equipment if it falls out of use, reinstatement of any removed fabric and the making good of historic fabric affected by the installation are required?

## English Heritage Policy on Microgeneration in the Historic Environment

English Heritage's published policy (*Microgeneration in the Historic Environment* (2008)) is that proposals for equipment attached to historic buildings that are scheduled monuments, listed buildings or in conservation areas will generally be acceptable if all of the following criteria are met:

1. the change will not result in loss of special interest;
2. the visual impact of the equipment is minor or can be accommodated without loss of special interest;
3. in fixing the equipment to the building there is no damage to significant historic fabric and installation is reversible without significant long-term impact on historic fabric;
4. the cabling, pipework, fuse boxes or other related equipment can be accommodated without loss of, or damage to, significant historic fabric;
5. that as part of the justification the applicant can demonstrate that other energy-saving measures or other locations with less impact on the historic fabric and the special interest have been considered and are not viable;
6. the applicant can demonstrate that the proposal has a net environmental benefit; and
7. the consenting authority imposes a condition requiring the removal of the equipment, including cabling and boxes, and making good of the historic fabric as soon as it falls out of use.

Proposals for freestanding equipment within scheduled areas, close to listed buildings, sites included in the register of historic parks and gardens and register of battlefields will generally be acceptable if the following criteria are met:

1. the appearance or setting of the site or building is not compromised; and
2. the ground disturbance caused by its installation is minimal and does not compromise the historic significance of the site.

This document may be revised from time to time. The most up to date version can be found at [www.english-heritage.org.uk/professional/advice/advice-by-topic/places-of-worship/climate\\_change\\_pow/](http://www.english-heritage.org.uk/professional/advice/advice-by-topic/places-of-worship/climate_change_pow/)

If you have any comments on the guidance note please e-mail them to [churches@english-heritage.org.uk](mailto:churches@english-heritage.org.uk) . Enquiries relating to specific proposals should be directed to the relevant English Heritage regional office, contact details for which are on the English Heritage website, at: [www.english-heritage.org.uk/about/working-locally/](http://www.english-heritage.org.uk/about/working-locally/)

If you would like this document in a different format, please contact our Customer Services department. Telephone 0870 333 1181; fax 01793 414926; textphone 0800 015 0516; e-mail [customers@english-heritage.org.uk](mailto:customers@english-heritage.org.uk)