



BATH PRESERVATION TRUST

# Improving the energy efficiency of listed buildings in Bath: results of an online survey

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## Introduction

Bath Preservation Trust has been working with Bristol's Centre for Sustainable Energy over the past nine months to identify ways of improving the energy efficiency of traditional (solid-walled) homes in Bath, including listed buildings.

Currently, the options available to people who live in listed buildings in Bath are limited. Furthermore, there is a lack of clear guidance about what specific energy efficiency measures are likely to receive listed building consent. Although we respect the fact that every application for listed building consent has to be considered on its own merits, the current policy vacuum is clearly a problem for many local people.

This report presents the results of a survey of local attitudes to improving listed buildings which demonstrates widespread support for a more flexible approach. It is clear that the people of Bath want to protect their heritage but they also want the city and its housing stock to be fit for the future. In the words of one respondent:

We used to live in a listed Georgian Town House and although the preservation of the heritage of Bath is important, the ability to reduce carbon footprint is also critical. There is no reason why these two components cannot be joined together to create a 21st Century vision for a Heritage City.

Perhaps the most shocking result from the survey is the finding that 77% of the respondents who live in listed buildings in Bath said they are cold in the winter and 43% said they are much colder than they want to be – four times the rate among Bath respondents living in unlisted buildings.

The new Core Strategy published by Bath and North East Somerset Council includes a commitment to developing a local policy on the retrofit of traditional buildings. We welcome this commitment and hope that the results of this survey will assist in the development of the policy.

This report also includes a statement of the Bath Preservation Trust's own agreed position on all the energy improvements explored in the survey.

## Methods

The online survey was conducted between January 13th and February 14th 2011. The link to the survey was published in the Bath Chronicle and sent to the individuals who participated in a series of workshops and a public meeting run in 2010. The workshops were run for people with a strong interest in heritage, people involved in local green groups, building professionals and school pupils. The link to the survey was also published on the Bath Preservation Trust website, Bath Watchdog website and in the Centre for Sustainable Energy e-newsletter. Members of Transition Bath and other local groups were encouraged to forward the link to their members.

A total of 246 people responded to the survey. Of these, 158 respondents who said they lived in BA1 or BA2 postal areas completed the survey. The results from this subgroup are reported in this document. The results of a further subgroup of 53 respondents who live in listed buildings in Bath are also reported.

## Findings

### Experience of cold homes

Over three quarters (77%) of respondents who lived in listed buildings in Bath said their homes were colder than they wanted them to be in the winter compared to 53% of those who lived in unlisted buildings in Bath. This included 43% of respondents who lived in listed buildings who said their homes were much colder than they wanted them to be in the winter compared to 11% of those in unlisted buildings.

### Attitudes to heritage and cutting carbon

Almost all (98%) respondents said that protecting the heritage of Bath was important to them.

Similarly, 96% of respondents said that cutting carbon emissions was important to them.

## Windows

Respondents were presented with a specific set of options for each measure under consideration. They could only choose one option. The percentages reported below show the level of support for each option.

### Secondary glazing

**A majority of Bath respondents supported the use of secondary glazing in listed buildings in the city, even where this has an impact on historic fabric.**

59%: The use of secondary glazing should be permitted in all listed buildings in Bath.

37%: The use of secondary glazing should be permitted in any listed building in Bath where there is no permanent impact on historic fabric.

4%: None of the above

Among respondents who live in listed buildings in Bath, 57% supported the first of these options.

Bath Preservation Trust position

The Trust supports the use of secondary glazing in listed buildings in Bath where this has no permanent impact on historic fabric.

## Double glazing (replacement windows)

**Seventy-one percent of Bath respondents supported a more permissive policy on the use of timber slim-profile double-glazed windows in the listed buildings in the city, though some wish to continue to protect significant historic windows on principal facades.**

- 42%: The replacement of windows with timber slim-profile double-glazing should be permitted in all listed buildings in Bath.
- 29%: The replacement of windows with timber slim-profile double-glazing should be permitted in all listed buildings in Bath except for significant historic windows on principal facades.
- 24%: The replacement of windows with timber slim-profile double-glazing should be permitted in all listed buildings in Bath where the window being replaced is itself a modern window or the original window is beyond repair.
- 6%: None of the above.

Among respondents who live in listed buildings in Bath, 34% supported the universal use of slim-profile double-glazing in listed buildings in Bath and a further 34% supported this position except for significant historic windows on principal facades.

Bath Preservation Trust position

The Trust supports the replacement of windows with timber slim-profile double-glazing in listed buildings in Bath except for significant historic windows on principal facades.

## Double-glazing: replacement panes in existing windows

**A majority of Bath respondents supported the replacement of the individual panes of windows of listed buildings with double-glazed panes, with crown-effect glass used for the outer pane where historic crown glass will be lost.**

- 56%: The replacement of individual glass panes in significant windows with slim-profile double-glazing should be permitted for all listed buildings in Bath, with crown-effect glass used for the outer pane where historic crown glass will be lost.
- 38%: The replacement of individual glass panes in significant windows with slim-profile double-glazing should be permitted for any listed building in Bath where historic crown glass will not be lost.
- 3%: The replacement of individual glass panes in significant windows with slim-profile double-glazing should not be permitted in any listed building in Bath.
- 3%: None of the above.

Among residents who live in listed buildings, 53% support the first of these options.

Bath Preservation Trust position

The Trust supports the replacement of individual glass panes in significant windows with slim-profile double-glazing in all listed buildings in Bath except where historic crown glass is still in place.

## Draught-proofing

### Windows and doors

**Two thirds of Bath respondents supported the universal use of draught-proofing in the windows and doors of listed buildings in the city.**

69%: The draught-proofing of windows and doors should be permitted in all listed buildings in Bath.

31%: The draught-proofing of windows and doors should be permitted in all listed buildings in Bath except where there is an impact on historic fabric.

Among respondents who live in listed buildings in Bath, 70% supported the universal use of draught-proofing in the windows and doors of listed buildings in Bath.

Bath Preservation Trust position

The Trust supports the universal use of draught-proofing in the windows and doors of listed buildings in Bath. Professional installation and the use of discreet products are encouraged.

### Floors, skirting boards and ceilings

**Three quarters of Bath respondents supported the universal use of draught-proofing in the floors, skirting boards and ceilings of listed buildings in the city.**

76%: The use of discreet draught-proofing in floors, skirting boards and ceilings should be permitted in all listed buildings in Bath.

24%: The use of discreet draught-proofing in floors, skirting boards and ceilings should be permitted in all listed buildings in Bath except where there is an impact on historic fabric.

Among respondents who live in listed buildings in Bath, 74% supported the use of draught-proofing in the floors, skirting boards and ceilings of all listed buildings in Bath.

Bath Preservation Trust position

The Trust supports the universal use of draught-proofing in the floors, skirting boards and ceilings of listed buildings in Bath. Professional installation and the use of discreet products are encouraged.

## Ventilation

**Three quarters of Bath respondents supported the installation of ventilation outlets on the secondary facades of listed buildings in the city, regardless of visual impact. A majority also supported their use on primary facades where there is no practical route to a secondary facade.**

11%: The installation of ventilation outlets should be permitted on all facades of all listed buildings in Bath.

44%: The installation of ventilation outlets should be permitted on secondary facades of all listed buildings in Bath. Outlets should only be permitted on primary facades where there is no practical route to the rear facade.

- 19%: The installation of ventilation outlets should be permitted on secondary facades of all listed buildings in Bath.
- 26%: The installation of ventilation outlets should be permitted on secondary facades of any listed building in Bath where this does not have a significant visual impact
- 1%: None of the above.

Among respondents who live in listed buildings in Bath, three quarters (74%) supported the installation of ventilation outlets on the secondary facades of listed buildings in the city, regardless of visual impact.

Bath Preservation Trust position

The Trust supports the installation of ventilation outlets on the secondary facades of all listed buildings in Bath. Outlets should be discreet and painted to match the colour of the external wall.

## Insulation

### Insulation under suspended timber floors

**Two thirds of Bath respondents supported the use of insulation beneath the suspended timber floors of listed buildings in the city.**

- 66%: The installation of ground floor insulation under suspended timber floors should be permitted in all listed buildings in Bath.
- 31%: The installation of ground floor insulation under suspended timber floors should be permitted in all listed buildings in Bath except where significant historic floorboards have to be removed and reinstated.
- 3%: The installation of ground floor insulation under suspended timber floors should not be permitted in any listed building Bath where this involves the removal and reinstatement of floorboards.
- 1%: None of the above.

Among respondents who live in listed buildings in Bath, 66% supported the use of insulation beneath the suspended timber floors of listed buildings in Bath.

Bath Preservation Trust position

The Trust supports the installation of ground floor insulation under suspended timber floors in the listed buildings of Bath except where significant historic floorboards have to be lifted.

### Insulation under solid floors

**A majority of Bath respondents supported the use of insulation beneath the solid floors of listed buildings in the city.**

- 56%: The installation of insulation under solid floors should be permitted in all listed building in Bath.
- 39%: The installation of insulation under solid floors should be permitted in all listed building in Bath except where significant historic floors have to be lifted.

3%: The installation of insulation under solid floors should not be permitted in any listed building in Bath.

2%: None of the above.

Among respondents who live in listed buildings in Bath, 57% supported the installation of insulation under solid floors in all listed building in Bath.

Bath Preservation Trust position

The Trust supports the installation of ground floor insulation under solid floors in the listed buildings of Bath except where significant historic floors are in place.

### **Solid wall insulation: external**

**Although most Bath residents want to protect the front facades of listed buildings in the city, a majority support the use of external insulation on secondary facades, at least where the wall is already rendered or has a history of being rendered.**

15%: The installation of external solid wall insulation should be permitted on all facades of all listed buildings in Bath.

26%: The installation of external solid wall insulation should be permitted on the secondary facades of all listed buildings in Bath.

28%: The installation of external solid wall insulation should be permitted on the secondary facades of all listed buildings in Bath where the wall is rendered or where there is evidence that the wall was once rendered.

26%: The installation of external solid wall insulation should not be permitted on listed buildings in Bath.

4%: None of the above.

Among residents who live in listed buildings in Bath, 57% supported the use of external insulation on secondary facades, though 21% felt this is only acceptable where the wall is already rendered or has a history of being rendered.

Bath Preservation Trust position

The Trust only supports the installation of external solid wall insulation on listed buildings in Bath where the existing wall is a rendered secondary facade.

### **Solid wall insulation: internal**

**The great majority (87%) of Bath respondents supported the use of internal wall insulation in the city's listed buildings on walls which have no important historic features, including 27% who supported the use of insulation on all internal walls.**

27%: The installation of internal solid wall insulation should be permitted in all listed buildings in Bath.

60%: The installation of internal solid wall insulation should be permitted in any listed building in Bath where the wall has no important historic features.

10%: The installation of internal solid wall insulation should not be permitted in listed buildings in Bath.

4%: None of the above.

Among respondents who live in listed buildings in Bath, 85% supported the use of internal wall insulation in the city's listed buildings on walls which have no important historic features, including 28% who supported the use of insulation on all internal walls.

Bath Preservation Trust position

The Trust supports the installation of internal solid wall insulation in listed buildings in Bath as long as there is no impact on important historic features.

## Heating systems

### Boiler flues

**Seventy percent of Bath respondents supported the installation of boiler flues on the secondary facades of listed buildings in the city, regardless of visual impact. Nearly half also supported their use on primary facades where there is no practical route to a secondary facade.**

10%: The installation of boiler flues should be permitted on all facades of all listed buildings in Bath.

36%: The installation of boiler flues should be permitted on secondary facades of all listed buildings in Bath. Flues should only be permitted on primary facades where there is no practical route to the rear facade.

24%: The installation of boiler flues should be permitted on secondary facades of all listed buildings in Bath.

28%: The installation of boiler flues should be permitted on secondary facades of any listed building in Bath where this does not have a significant visual impact

1%: None of the above.

Among respondents who live in listed buildings in Bath, 74% supported the installation of boiler flues on the secondary facades of listed buildings in the city, regardless of visual impact. Nearly half (49%) supported their use on primary facades where there is no practical route to a secondary facade, including 9% who are support their use on all primary facades.

Bath Preservation Trust position

The Trust supports the installation of boiler flues on the secondary facades of all listed buildings in Bath. Outlets should be discreet and painted to match the colour of the external wall.

### Wood burners and boilers

**Almost all Bath respondents supported the use of wood burners and boilers in the city's listed buildings, though for two thirds this is only acceptable as long as an existing flue can be reused without damage to a significant grate.**

30%: The installation of wood burners and boilers should be permitted in all listed buildings in Bath.

66%: The installation of wood burners and boilers should be permitted in any listed building in Bath where an existing flue can be reused without damage to a significant grate.

3%: The installation of wood burners and boilers should not be permitted in any listed building in Bath.

1%: None of the above.

Among respondents who live in listed buildings in Bath, 96% said they should be permitted in listed buildings, including 66% who wanted this only where an existing flue can be reused without damage to a significant grate.

Bath Preservation Trust position

The Trust supports the installation of wood burners and boilers in listed buildings in Bath as long as an existing flue can be reused without damage to an original grate.

## Air source heat pumps

**Three quarters of Bath respondents support the installation of air source heat pumps on secondary facades of listed buildings in the city, as long as they are not visible and do not have a significant noise impact.**

13%: The installation of air source heat pumps with intakes on secondary facades should be permitted in all listed buildings in Bath.

61%: The installation of air source heat pumps with intakes on secondary facades should be permitted in any listed building in Bath where they are not visible and do not have a significant noise impact.

22%: The installation of air source heat pumps should not be permitted in listed buildings in Bath.

3%: None of the above.

Among residents who live in listed buildings, 72% support the installation of air source heat pumps on secondary facades of listed buildings in the city, as long as they are not visible and do not have a significant noise impact.

Bath Preservation Trust position

The Trust supports the installation of air source heat pumps with intakes/outlets on secondary facades as long as they do not have a significant visual or noise impact.

## Solar panels and slates

### Solar panels

**Four fifths (79%) of Bath respondents support the installation of solar panels on side, rear and valley roofs of listed buildings in Bath where the panel does not have a significant visual impact on a prominent roofscape, including 39% who were not concerned about visual impact.**

24%: The installation of roof-mounted solar panels should be permitted on all roofs of listed buildings in Bath.

15%: The installation of roof-mounted solar panels should be permitted on side, rear and valley roofs of all listed buildings in Bath.



- 40%: The installation of roof-mounted solar panels should be permitted on side, rear and valley roofs of any listed building in Bath where the panel does not have a significant visual impact on a prominent roofscape.
- 13%: The installation of roof-mounted solar panels should be permitted on the valley roofs of all listed buildings in Bath.
- 5%: The installation of roof-mounted solar panels should not be permitted on listed buildings in Bath.
- 3%: None of the above.

Among respondents who live in listed buildings in Bath, 69% supported the installation of solar panels on side, rear and valley roofs of listed buildings in Bath where the panel does not have a significant visual impact on a prominent roofscape, including 27% who were not concerned about visual impact.

Bath Preservation Trust position

The Trust supports the installation of roof-mounted solar panels on any listed building in Bath where the panel is sited on a side, rear or valley roof and the panel does not have a significant visual impact on a prominent roofscape.

## Solar slates

**Almost all (95%) Bath respondents supported the use of heritage solar slates on listed buildings in the city but a majority would limit their use to roofs where there is no significant visual impact or loss of historic fabric.**

- 39%: The installation of heritage solar tiles should be permitted on all listed buildings in Bath.
- 56%: The installation of heritage solar tiles should be permitted on any listed building in Bath where there is no significant visual impact or loss of historic fabric.
- 3%: The installation of heritage solar tiles should not be permitted on listed buildings in Bath.
- 2%: None of the above.

Among respondents who live in listed buildings in Bath, 92% supported the use of solar slates on listed buildings in Bath, including 64% who would restrict their use to roofs where there is no significant visual impact or loss of historic fabric.

Bath Preservation Trust position

The Trust supports the installation of heritage solar slates on any listed building in Bath where there is no significant visual impact.