SOUTH DOWNS
NATIONAL PARK

Retrofitting Historic Buildings for Energy Efficiency and Carbon Reduction

April 2026

A Technical Advice Note (TAN) is a formal document produced by planning authorities to provide detailed, practical guidance on a specific topic. TANs are intended to clarify how policies within local plans should be applied and interprets national policies in a local context, ensuring consistency and transparency in the planning process and promoting best practice across the National Park.

This Technical Advice Note (TAN) is designed to underpin the Climate Action Policies and the Landscape and Heritage Policies set out in the South Downs Local Plan. In addition, it provides additional guidance to support the South Downs National Park Partnership Management Plan (PMP).

The TAN is closely aligned with the National Planning Policy Framework (NPPF), which sets out the government's requirements for sustainable development and heritage protection. It also takes into account guidance and standards set by Historic England, ensuring that the preservation of historic assets is integrated into local planning decisions. By translating national objectives into locally relevant advice, the TAN assists stakeholders in meeting statutory obligations and achieving high standards of environmental and heritage conservation within the South Downs National Park. This approach fosters collaboration between local authorities, Historic England, and other partners, strengthening the protection of the region's valued landscapes and historic places.

For further information please see the links at the end of this document, or email the 'Do I Need Planning Permission (DINPP)' service using the contact information below:

For further information on all sites within Adur and Worthing, Arun, Brighton & Hove, Eastbourne, Horsham, Lewes Mid-Sussex or Wealden districts, that are within the National Park, please email **planning@southdowns.gov.uk**

For all sites within the relevant partner Local Authorities within the National Park area, as in: Chichester (**dcplanning@chichester.gov.uk**), East Hants (planningdev@easthants.gov.uk), and Winchester (**sdplanning@winchester.gov.uk**) please email them directly.

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1. INTRODUCTION

1.1 Today's homeowners are understandably keen to improve the energy efficiency of their homes and the SDNPA (the Authority) is committed to reducing carbon emissions across its area to combat Climate Change.

1.2 This document is aimed at homeowners, residents and their consultants, to help you consider which carbon emission reduction options are available, so you can assess which are likely to be the most effective, for the building's architecture and method of construction: traditional, modern etc.

1.3 This document does not cover Building Regulations. For further information please contact your local Building Regulations Team and see the link under the Further Information Page at the end of this document.

1.4 Listed buildings account for just 2% of the building stock nationally and they are easily damaged by ill-conceived alterations. Any thermal upgrading works must be preceded by the repair of existing fabric defects, as these can reduce the thermal performance and compromise the effectiveness of retrofit measures.

1.5 Permitted Development Rights (PDRs) are national grants of planning permission allowing certain building works, like minor home extensions, loft conversions, or specific changes of use, without needing a full planning application, subject to strict size, location, and design conditions to protect local amenities. While PDRs simplify many common projects for houses, they don't apply to flats, listed buildings, or areas with Article 4 Directions (which remove rights). Local Planning Authorities can remove PDRs for specific areas, requiring full planning permission. **Permitted Development & Article 4 Directions**.

1.6 'Article 2(3) land' refers to specially protected areas in England, including National Parks, the Broads, National Landscapes, World Heritage Sites, and Conservation Areas, where standard planning permissions (Permitted Development Rights) are more restricted. In these areas, certain works require prior approval or full planning permission, and Article 4 Directions may further restrict changes.

1.7 When considering how to improve the energy efficiency of a building that is listed or within a conservation area, retaining the historic fabric will be an important consideration. Works to improve the energy efficiency of buildings, especially in roof spaces, may also have an impact on protected species, such as bats.

1.8 Ongoing maintenance for the continued performance of any upgrading works is likely to be required.

1.9 The SDNPA does not accept liability for loss or damage arising from the use of this information.

WHOLE BUILDING APPROACH

1.10 Historic England (HE), the Society for the Protection of Ancient Buildings (SPAB) and other experts strongly recommend adopting a 'whole building' approach, when addressing the thermal efficiency of older and historic buildings, so that any changes made to improve energy efficiency do not lead to possible unintended consequences such as moisture accumulation, overheating or fabric damage. It is important to understand the way an individual house performs as an integrated environmental system. Links to relevant sites and documents published by HE and SPAB on their websites are provided at the end of this document.

1.11 Understanding the building's construction and ventilation is important in order to provide the appropriate thermal upgrade with the most appropriate measures and remember, traditional buildings need to breathe.

1.12 This Advice Note is a short summary of some of the retrofit options for historic buildings. We need to consider a building's fabric to find balanced solutions that save energy, sustain heritage significance, and maintain a comfortable and healthy indoor environment, whilst managing the risks of changes proposed to a building. You may need to seek expert advice from a historic building surveyor or professional advice to ensure that the works are carried out appropriately: To find the right professional help and for further advice as to whether you require planning permission and/or listed building consent, apply for 'Do I need Planning Permission' (DINPP) at planning@southdowns.gov.uk

FIGURE 1: WHOLE BUILDING APPROACH

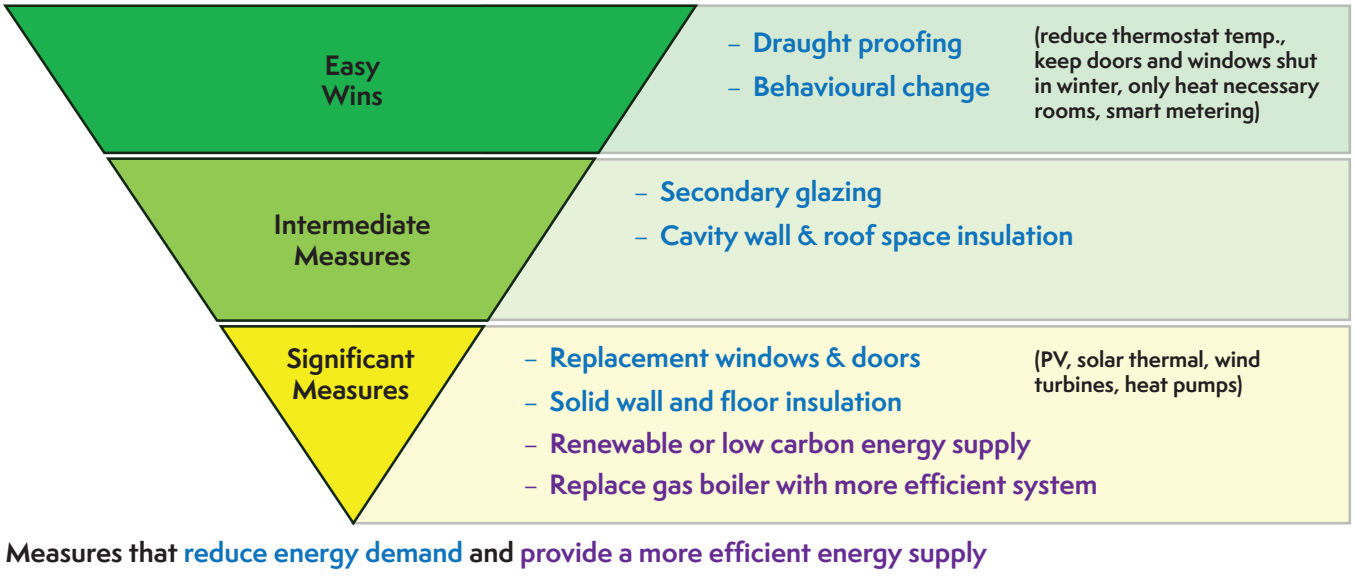

FIGURE 2: HIERARCHY OF ENERGY EFFICIENCY MEASURES IN A BUILDING

The key is to first reduce energy demand

There are a few measures that householders can take to enable them to live comfortably in their historic home and reduce carbon emissions and energy consumption, that have minimal or no impact on the historic fabric of the house. These include:

- Practical day-to-day measures to reduce demand in how you live in the building.
- Relatively simple ways to reduce heat/energy loss
  THEN...
- Measures to improve energy efficiency of the home.

2. REDUCING ENERGY DEMAND

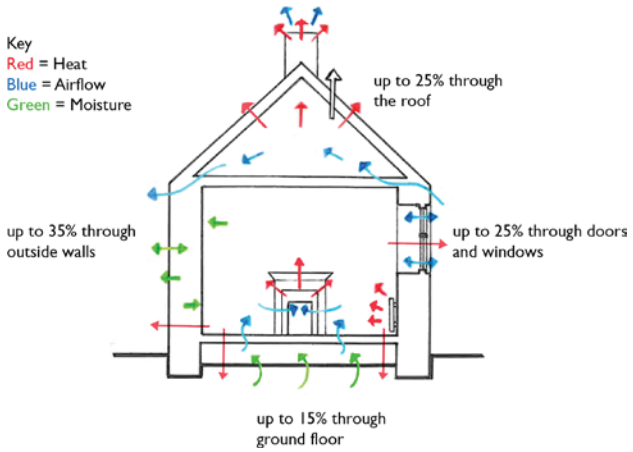

FIGURE 3: SHOWING A STANDARD TRADITIONAL HOUSE

FLOORS

Suspended floor insulation

2.1 Some floors do not sit directly on the ground, but are raised up from it using floor joists, supported from a masonry substructure or the base of the external walls. These floors are described as being suspended and they can be a significant source of heat loss particularly if there are gaps between floorboards allowing draughts. Insulation can be fitted between or above the floor joists, to limit the passage of heat through the floor.

2.2 It can be achieved easily if the floorboards can be lifted, but where this is not possible without harm, installation requires the void below to be deep enough for working access to the underside. It is essential to maintain the sub-floor ventilation to the space below the insulation to avoid the risk of condensation, and it is important that the insulation does not transfer moisture from damp walls or adjacent ground to timber joists, therefore a natural breathable product is recommended.

FIGURE 4: INSULATION WITHIN THE FLOOR.

(Historic England: Energy Efficiency and Historic Buildings: Insulating Suspended Timber Floors.)

Solid Floor insulation

2.3 Ground floors of historic buildings are often solid, laid directly onto the ground, with minimal foundations and insulation. The energy savings resulting from insulating solid ground floors can in many cases be of marginal benefit when the cost and disruption to the building fabric are considered. Insulating other building elements is likely to produce greater benefits in energy efficiency for significantly less cost. This is partly because a typical solid floor already provides a degree of insulation, but mainly because the ground beneath maintains a stable temperature of around 10 degrees centigrade. However, where an existing floor is being taken up, replaced or repaired, then it can be worth making use of the opportunity to improve its thermal performance.

2.4 In all cases this involves a deeper floor build-up that involves considerably more work, and in most cases, insulation cannot be retrofitted to an existing solid floor. Altering a finished floor level is likely to cause problems at the bottom of stairs, doors and skirting boards. Excavating and replacing solid floors is subject to listed building consent, which can be contentious if the floors have historic finishes and where foundations are shallow or where there is potential for archaeological remains.

FIGURE 5: AN INSULATED HYDRAULIC LIME FLOOR BEING LAID.

(Historic England: Energy Efficiency and Historic Buildings: Insulating Solid Ground Floors.)

FLOORS: What is the Authority's view?

The Authority will support applications for a listed building to install solid floor insulation and suspended floor insulation, where it preserves important historic building fabric and uses materials which are appropriate to the building.

FLOORS: Does it require permission?

- **Outside of Conservation Areas:** planning permission not required.
- **Conservation Areas:** planning permission not required.
- **Listed Buildings:** planning permission not required, listed building consent required.

Specific requirements for listed building consent application:

- Specifications of proposed insulation materials, and method statement for installation, including details of associated alterations to existing building fabric (such as floor structures, floorboards and surface finishes.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

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WALLS

2.5 Wall materials can include bricks of varying hardness and permeability, dressed stone blocks of varying types, rubble stone, flint and rammed earth, and also timbers. Mortars can also be a mix or naturally hydraulic lime (NHL) based, with wide variations in permeability and durability. A standard traditional brick wall is used in the examples in this section, although the principles would apply to most walls. Vapour permeable materials should always be used which are sympathetic with the qualities of historic fabric, e.g. wood fibre, insulating NHL (lime) render etc. to allow the building to breathe.

Cavity Wall Insulation

2.6 Cavity Walls are unusual in traditional construction but may be present on buildings and extensions from early twentieth century onwards. The process involves installing insulation in the gap between the two walls, generally by injection, to reduce the transfer of heat across the gap between each wall. Early cavity walls are pre WWII; due to the significance of this construction technology in earlier fabric, such walls should generally be treated as solid walls, with insulation applied either externally or internally.

2.7 Other listed buildings may accommodate insulation between an outer protective layer and inner wall surfaces, such as timber-framed buildings or those clad in finishes like weatherboarding.

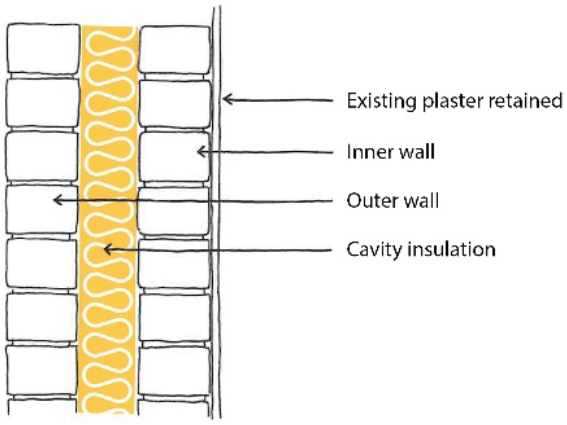

FIGURE 6: CAVITY WALL INSULATION (USING BRICK WALL EXAMPLE)

CAVITY WALLS: What is the Authority's view?

The Authority will support applications to insulate modern cavity walls on historic buildings. Proposals to insulate historic cavity walls may be acceptable, subject to the details of the proposal.

CAVITY WALLS: Does it require permission?

- **Outside of Conservation Areas:** planning permission not required.
- **Conservation Areas:** planning permission not required.
- **Listed Buildings:** planning permission not required, listed building consent will be required. Post WWII cavity walls can often be insulated within the cavity without the need for listed building consent, provided no features of special interest are affected. Insulation between an outer protective layer and inner wall would require listed building consent and maybe planning permission.

Specific requirements for listed building consent application:

- Specifications of proposed insulation, and method statement, including details of surface finish.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

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Solid Wall Insulation

2.8 Most historic buildings will have solid walls. The best place for wall insulation is on the outside of a building. The heat from inside keeps the fabric warm in winter, minimizing condensation and moisture and the walls are protected from external heat, so they remain cooler in the summer. The problem is that the external insulation will change the appearance and character of the historic buildings, by obscuring the fabric and altering window, door and eaves details. This visual change is often not acceptable.

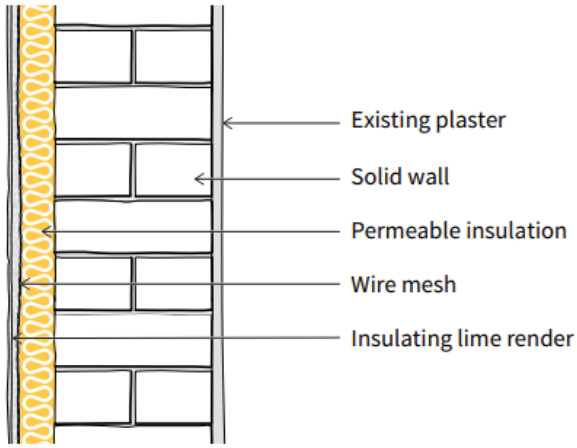

FIGURE 7: *EXTERNAL* (HISTORIC ENGLAND 2016: INSULATING SOLID WALLS)

2.9 **Internal solid wall insulation** is fixed to the internal face of an external wall to limit the passage of heat through the wall. This is more usual in historic buildings than external wall insulation. The acceptability of the process depends on the significance of the internal fabric and features that would be altered to this building.

2.10 Installing internal insulation on traditionally constructed walls can result in harm, particularly through inadequate ventilation, cold bridging and condensation on the wall surface. If considering internal wall insulation on an historic building, independent specialist advice is recommended.

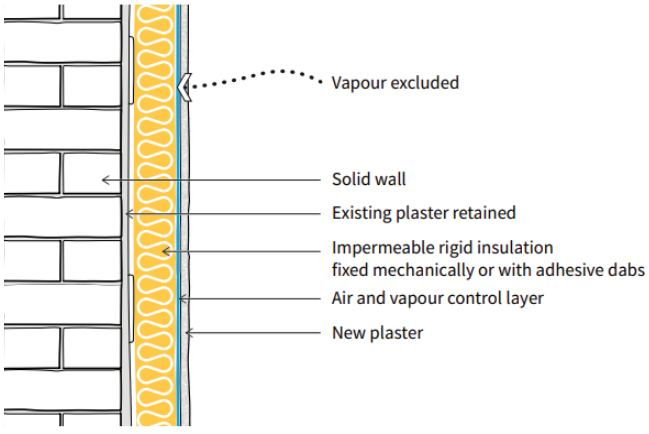

FIGURE 8: *INTERNAL* (HISTORIC ENGLAND 2016: INSULATING SOLID WALLS)

SOLID WALLS: What is the Authority's view?

The Authority will not generally support applications for external solid wall insulation for historic buildings, due to the way in which this can harm the external appearance of the building. It may be acceptable in limited circumstances for rear elevations and more recent extensions. Care will need to be taken in the detailing of eaves, rainwater goods, corners and window/door reveals.

Internal wall insulation can sometimes be accommodated, but this would need the significance assessed and evidence-based justification and methods detailed. The process will generally alter and disrupt significant features; plaster, joinery, chimney stacks etc.

Does it require permission?

- **Outside of Conservation Areas:** or **Inside Conservation Areas:** planning permission is required (materials used should be of a similar visual appearance to the existing wall).
- **Listed Buildings:** listed building consent and planning permission required.

Specific requirements for listed building consent application:

- Specifications of proposed insulation, and method statement, including details of surface finish, the impact of the loss of fabric and significance of this both physically and visually.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

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ROOFS

2.11 Insulating a loft can be achieved internally without affecting the external appearance of the house and generally without harming internal original features. Ideally, traditional loft insulation should be laid both between and over the ceiling joists for full coverage and avoidance of cold spots. Loft voids on the cold side of the insulation should be well ventilated and eaves not blocked. Modern 'breathable bat friendly' roofing felt can help.

Protected Species

2.12 Works to roofs should consider bats and their roosts, which are protected by law. Bat safe products should be used, including natural fabric, fibre boards, safe timber treatments, TLX membranes etc. There are strict requirements associated with the presence of bats. In order to grant listed building consent you would need to be satisfied that appropriate surveys have been undertaken, mitigation measures and provided and, where necessary, a Natural England licence is obtained. Failure to comply with such requirements would mean that a consent would be unlawful.

Cold Roof Insulation

2.13 This is insulation generally laid flat between or above the ceiling joists, at the base of the attic. It limits the movement of heat from the heated spaces in the rooms below, leaving the attic cold. This type of intervention does not usually require listed building consent, as the installation of insulation at ceiling level is unlikely to affect the building's special interest – unless it involves loss of historic fabric or the use of sprayed foam insulation: which is not acceptable.

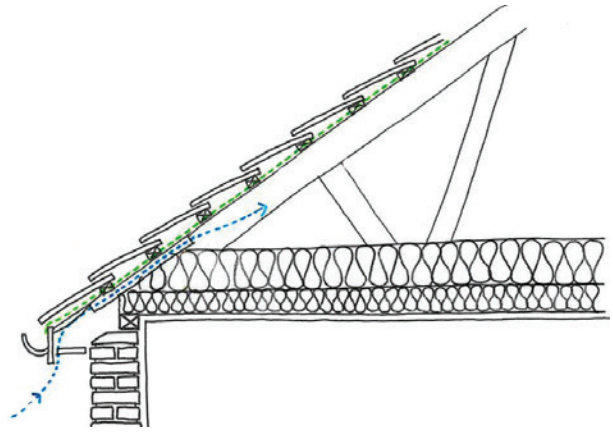

FIGURE 9: COLD ROOF STANDARD (MOVEMENT OF MOISTURE (GREEN) AND AIR (BLUE))

Warm Roof insulation

2.14 This insulation is fixed at rafter level, with either a very small or no gap between it and the roof covering. It stops heat escaping through the envelope of the roof and allows the attic space to be heated. It is often used where the attic has been converted to a habitable room.

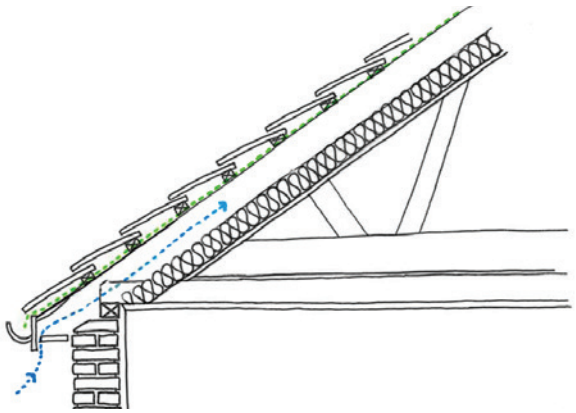

FIGURE 10: WARM ROOF STANDARD (GREEN MOISTURE, BLUE AIR)

ROOFS: What is the Authority's view?

We encourage owners of historic buildings to properly insulate their roof, as this can be one of the biggest single sources of heat loss. The type of insulation used should be breathable, natural and bat-friendly and at an appropriate thickness, with adequate ventilation. Generally, the Authority will support applications which seek to insulate historic roofs provided that they use materials appropriate to the building, that they do not result in the loss of historic building fabric, that they maintain ventilation and that (where appropriate) they preserve the character of important roof spaces. Other associated alterations such as ceiling removal and rooflights will be assessed on their own merits.

ROOFS: Does it require permission?

- **Outside of Conservation Areas:** planning permission not required.
- **Conservation Areas:** planning permission not required.
- **Listed Buildings:** planning permission not required, listed building consent will not normally be required – unless it involves the loss of historic fabric. The use of spray foam insulation is strongly opposed.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

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CHIMNEYS

2.15 Most domestic buildings can have good indoor air quality through passive ventilation: opening windows and doors, fireplaces, vent bricks etc. Fireplaces, flues and chimneys are important ways of providing ventilation and allowing the dispersal of water vapour. If a fireplace is no longer used, the flue can be closed off temporarily to reduce draughts. Some fireplaces have built-in dampers as part of the cast iron hood, or a chimney balloon is a good way to close off the flue to draughts and is easily removed, without harm to fabric and to maintain adequate ventilation, to prevent moisture build-up.

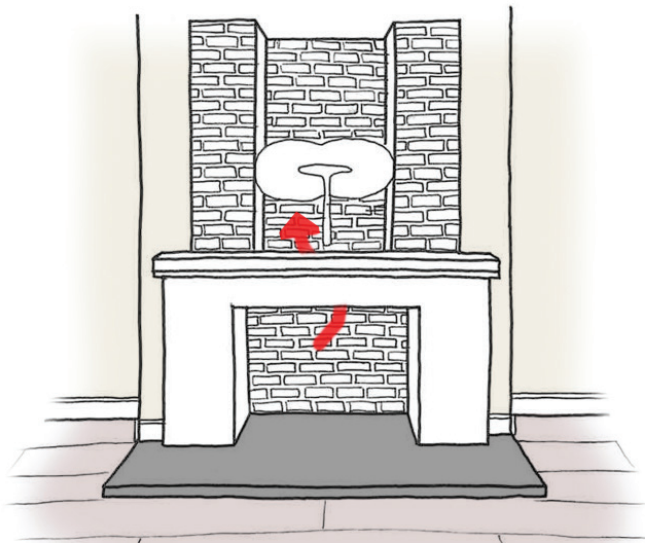

FIGURE 11: CHIMNEY BALLOON AND HEAT LOSS

CHIMNEYS: What is the Authority's view?

The Authority supports measures which homeowners can take to make their heating systems more effective and efficient, without harm to the fabric's special interest or significance.

CHIMNEYS: Does it require permission?

- **Outside of Conservation Areas:** planning permission not required.
- **Conservation Areas:** planning permission not required.
- **Listed Buildings:** planning permission not required, listed building consent will normally be required.

Specific requirements for listed building consent application:

- Specifications of proposed type of works/ insulation, and method statement of works and materials.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

See further information on back page

WINDOWS AND DOORS

2.16 Windows (including roof lights) and doors are the least thermally efficient elements of a house. However, the thermal efficiency of our houses can be improved greatly without replacing the windows and doors that contribute so much to the historic, architectural and visual significance and special interest of the building.

2.17 The removal of windows and doors carries an embodied carbon cost and after removal, they must be disposed of either as landfill or by incineration. Replacement windows and doors also have a high 'embodied energy' cost associated with their material extraction, manufacture and transport.

2.18 Heat escapes through windows both by direct heat loss through the glass itself, and by excessive ventilation from draughts and air tightness around windows and their casements. There are two relatively straightforward but effective measures to consider which reduce the energy lost which have little or no change to either appearance, or historic fabric: which are:

- Draught-proofing
- Installing secondary glazing

Draught proofing

2.19 Draught-proofing of windows and doors will be mostly acceptable, except in cases where they are of exceptional significance, or cannot be draught-proofed without visual harm, for example, stained glass panels.

2.20 To draught-proof listed buildings, use reversible, discreet methods like fitting brush/compression seals in routed channels, adding secondary glazing, thermal curtains, and letterbox/keyhole covers, while avoiding permanent alterations; focus on sealing gaps around historic windows and doors with appropriate materials (rubber, brush) that suit the building's permeable nature, allowing for ventilation to prevent condensation and damp.

2.21 Draught-proofing is one of the most cost-effective and least intrusive ways of improving comfort and reducing space heating loss, with little or no change to a building's appearance and little or no impact on the historic fabric. It can reduce up to 50% air leakage from windows and doors.

2.22 Sliding sash windows are the most difficult to draught-proof, due to the method of opening and it is recommended to have the work done by specialists. Casement (hinged) windows can be similarly adapted, and while the work is simpler due to the side hung opening method, it is essential that the moving parts are suitably adjusted to allow for the new seals.

Secondary glazing to windows

2.23 Secondary glazing is internal glazing affixed to the frame of an existing window, to improve the thermal or acoustic insulation of a window, whilst retaining the existing window in situ. There are many different options available, and this can be bespoke, designed to a specific window.

2.24 Secondary glazing methods range from the simple application of film to glass, to permanent, professionally installed systems, including magnetic panels, hinged units, and sliding sashes (vertical or horizontal), all adding an interior pane to existing windows for better insulation, noise reduction, and draft-proofing, with options to be removable, openable, or fixed.

2.25 The benefits of secondary glazing are that many methods allow it to be easily fitted without extensive

work or harm to the original woodwork and it is completely reversible (when installed sympathetically) e.g. temporary lightweight systems using magnets, which can be removed and stored during the summer months.

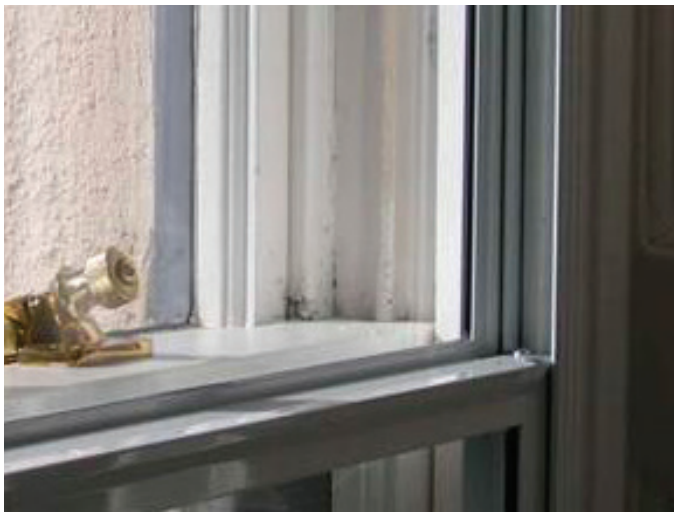

FIGURE 12: SECONDARY GLAZING (HISTORIC ENGLAND (2024) ADAPTING HISTORIC BUILDING'S FOR ENERGY AND CARBON EFFICIENCY)

DRAUGHT PROOFING & SECONDARY GLAZING: What is the Authority's view?

The Authority encourages owners of historic buildings to consider draught proofing or internal secondary glazing as a good solution to insulate windows, subject to the significance of the windows and method of installation proposed on fabric and appearance. This is highly energy efficient, enables historic windows to be retained and preserves the embodied carbon and energy of the building. Whether listed building consent is required would be decided case by case, subject to heritage significance, method of fixing and impact on the special architectural, historic interest.

SECONDARY GLAZING TO WINDOWS AND DOORS: Does it require permission?

- **Outside of Conservation Areas:** planning permission not required, unless in a flat or replacement windows/doors, or a material change to character or appearance.
- **Conservation Areas:** planning permission not required, unless replacement windows or doors, or visually change the appearance, or in a flat.
- **Listed Buildings:** permanently fitted secondary glazing is likely to require consent if it affects the fabric or has a material change to character or appearance.

Window & door replacement

2.26 Historic windows and doors are an irreplaceable resource for their significance and their fabric as they often have attractive, historic glass. Such fabric should be retained and repaired as a first principle. Original or later windows which contribute to the building's significance should be retained and repaired wherever possible. In some cases, it may be appropriate to replace existing panes with slim-profile or vacuum double glazing within historic frames, where the frames can accommodate this. Original glazing bars should be retained.

2.27 Where it is evidenced that the frames are modern timber replacements or that the windows or doors are beyond repair, like for like replacements will be advised. Modern replacement windows that do not contribute to the architectural or historic interest of the building might be able to be replaced with well-detailed double-glazed units of appropriate material and design in character and appearance with the property. This is assessed on a case by case basis and impact on special interest.

2.28 New windows can be slim-profile or vacuum, slim double-glazing units (6mm-18mm width), where appropriate; each proposal should be assessed case by case, subject to heritage significance and special architectural and historic interest, and if evidenced as beyond repair or broken. Sealants and spacers should match the finish colour of the frames, for less visual impact.

WINDOW & DOOR REPLACEMENT: What is the Authority's view?

The Authority supports the replacement of windows or doors which are demonstrably inappropriate to the building or area, or are evidenced as not historic, or have been evidenced to be beyond repair in a condition survey report. In these circumstances, replacement with slim double glazing of an appropriate design and detailing may be considered. Each proposal should be assessed case by case, subject to heritage significance and special architectural and historic interest. The Authority will not usually support proposals to remove windows or doors from a historic building where those windows are considered to be of historic significance and are in a good condition to be reasonably retained, subject to other balancing factors. In those circumstances, we would recommend repairs and secondary glazing. Where the principle of replacement has been established, the Authority will not usually support the use of uPVC, but will encourage traditional materials appropriate to the building.

WINDOW & DOOR REPLACEMENT: Do they require permission?

The fitting of draught excluder strips to windows is a matter outside the listed building controls, but only if it involves no physical changes or fittings to the joinery. For systems that require alterations to the existing fabric, which are more than simple, non-invasive fixings, consent is likely to be required.

Replacement windows, individual panes and doors would require listed building consent and may require planning permission if a material change to character or appearance.

Specific requirements for listed building consent:

- Drawing/plans/photos (to scale) to identify the windows on which it is proposed to be installed.
- Specifications of proposed secondary glazing or draught proofing or new windows and doors, and method statement for installation, including means of fixing and alterations to existing aperture.
- Joinery details to included plans and cross sections at 1:20 and 1:5 scale.
- Information required proportionate to the proposals.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

See further information on back page

3. ENERGY SAVING TECHNOLOGIES

HEATING SYSTEMS

Smart heating controls:

3.1 Some heating systems can now be controlled by an app on a mobile device, which allows the heating to be adjusted remotely. These systems can also provide information about energy usage patterns and consumption. This information can enable a heating system to be used more efficiently. For instance:

- Remote heating controls allow you to turn the heating up or down so that you are not heating an empty house.
- You can heat different rooms in your house at different temperatures rather than heating the whole house (including empty rooms) at the same temperature.
- Smart thermostats can automatically turn the heating up in cold weather and down when the home is receiving solar gain in sunny weather.
- Some systems can detect when you have left the house and automatically lower the temperature.
- Some systems detect open windows and lower the temperature or shut down to conserve energy.

3.2 All these features can significantly reduce energy consumption, lower energy bills, and reduce carbon emissions. Smart heating control systems are also designed to be compatible with low-carbon heating technologies like air source heat pumps or solar thermal systems making their use more efficient.

FIGURE 13: HEATING CONTROLS AND SMART PHONE

SMART HEATING CONTROLS: What is the Authority's view?

The Authority supports measures which homeowners can take to make their heating systems more effective and efficient.

SMART HEATING CONTROLS: Does it require permission?

- **Outside of Conservation Areas:** planning permission not required.
- **Conservation Areas:** planning permission not required.
- **Listed Buildings:** listed building consent not required provided that the installation does not require substantial material alterations to a building (i.e. new holes through existing walls, routing cable runs through walls or fixings) and planning permission is not required.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

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EFFICIENT LIGHTING & APPLIANCES

3.3 Changing lights with more efficient light bulbs (e.g. LEDs) can provide the same amount of illumination but with much reduced wattage and therefore electricity use. Similarly, A-rated appliances (see **Home appliances and energy efficiency ratings – Energy Saving Trust**) can also save significant amounts of electricity, and therefore carbon emissions, compared with older, less efficient alternatives.

EFFICIENT LIGHTING & APPLIANCES: What is the Authority's view?

The Authority supports measures which homeowners can take to make their heating systems more effective and efficient.

EFFICIENT LIGHTING & APPLIANCES: Does it require permission?

- **Outside of Conservation Areas:** planning permission not required.
- **Conservation Areas:** planning permission not required.
- **Listed Buildings:** listed building consent not required provided that the installation does not require substantial material alterations to a building (i.e. large new holes through existing walls.) Where the existing light fittings, components, such as switches etc, are of historic significance, these should remain.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

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MORE EFFICIENT ENERGY SUPPLY

3.4 Replacement Boilers: Most conventional heating systems involve burning fuel, often fossil fuels such as oil or gas. In future, fossil-fuelled boilers are unlikely to be allowed, but at present, it is possible to install these as replacements for existing heating systems and new gas or oil-fuelled boilers can be more efficient than older models.

3.5 A biomass boiler heats homes and water by burning organic materials like wood pellets, wood chips, or logs, in a similar way to gas boilers but using renewable fuel, offering a low-carbon heating alternative. They can connect to existing radiators or underfloor heating systems, with automated options available for convenience, however, they require extra covered space for storing fuel and access for deliveries.

MORE EFFICIENT ENERGY SUPPLY: What is the Authority's view?

The Authority supports applications for alterations to enable the installation of new boilers, where they minimise the loss of historic building fabric, and are sensitively located in inconspicuous locations.

MORE EFFICIENT ENERGY SUPPLY: Do they require permission?

- **Outside of Conservation Areas:** planning permission not required unless a new building is proposed to contain a new boiler and fuel storage (generally for biomass).
- **Conservation Areas:** planning permission not required unless a new building is proposed to contain a new boiler and fuel storage (generally for biomass).
- **Listed Buildings:** listed building consent will usually only be required if alterations to walls, floors, ceilings or roofs are necessary for the replacement boiler, such as for new flues and where the existing heating system components, such as cast-iron radiators, are of historic significance and should remain.

Specific requirements for listed building consent application:

- Drawings and plans (to scale) to identify areas proposed to be altered/locations of new structures.
- Specifications of proposed materials and flues, and method statement for installation, including details of associated alterations to existing building fabric.
- Planning permission required if flue exceeds the highest part of the roof by 1m or more, or flue is installed on a wall or roof slope that fronts a highway, principal or side elevation.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

See further information on back page

SOLAR COLLECTION

3.6 Roof mounted solar panels: Photovoltaic panels, slates and tiles and Solar Thermal panels will be acceptable in some cases. They can be fitted on the roofs of many buildings in ways that avoid direct harm to the fabric of buildings. They do have the potential to be visually intrusive through the change in material and reflectivity; harmful to the setting of a listed building; to the character and appearance of a conservation area or the wider landscape.

3.7 The panels should be carefully sited, on non-visible roof elevations (from the public domain) where they affect Heritage Assets and it is possible to reduce their visual impact and for ease of access to enable maintenance.

3.8 The panels should be installed using qualified contractors and regular inspections and maintenance carried out to ensure they are in safe and working order, in accordance with the Fire Protection Association.

FIGURE 14: LOW VISUAL IMPACT PV TILES ON A SLATE ROOF

FIGURE 15: FIGURE 14 (LEFT): SOLAR PANELS IN A DISCREET LOCATION ON LEAN-TO

SOLAR COLLECTION: What is the Authority's view?

The Authority supports applications for roof mounted solar panels and solar slates/tiles which are sensitively located, are not unduly prominent for Heritage Assets, do not require substantial alterations to or removal of historic building fabric, and preserve the residential amenity of neighbouring properties.

SOLAR COLLECTION: Do they require permission?

- **Outside of Conservation Areas:** planning permission is not required, unless the solar panels would be higher than the highest part of the roof (excluding any chimneys) or would protrude more than 0.2m beyond the plane of the wall/roof (when measured perpendicular to the wall/roof slope). Houses in some areas may have an Article 4 Direction which reduces the permitted development rights and therefore requires planning permission for solar panels. Additional restrictions apply to flat roofs (*prior approval), non-domestic buildings, flats and scheduled monuments.
- **Conservation Areas:** same restrictions as outside apply and also planning permission required if installation on a wall which fronts a highway.
- **Listed Buildings:** listed building consent and planning permission required to install solar panels fixed to the listed building.

Specific requirements for listed building consent application:

- Drawing/plans (to scale) to identify the locations of proposed solar panels, depth of solar panels (including fixings), and relationship with surrounding building fabric.
- Specifications of proposed solar panels, and method statement for installation, including details of associated alterations to existing building fabric.
- Options of alternative locations to assess best option; including slopes, outbuildings, and at ground level.

(*Installing solar PV panels on flat roofs in Article 2(3) land (conservation areas, National Parks, etc.) generally requires prior approval from the Local Planning Authority (LPA). Regulations require that panels do not exceed 1 metre above the highest part of the roof (excluding chimneys) and are not within 1 metre of the external roof edge.)

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

See further information on back page

3.9 Mounting panels on outbuildings and at ground level can be preferable to the installation on the main listed building. This is where there is sufficient space or where it may be possible to install solar panels on supports directly fixed to the ground within the curtilage of listed buildings or on outbuildings, if they are not of significance or would be visually harmful or harmful to habitat.

FIGURE 16: GROUND MOUNTED SOLAR PANELS IN A GARDEN (HE ADAPTING HISTORIC BUILDINGS FOR ENERGY & CARBON EFFICIENCY 2024)

GROUND MOUNTED SOLAR: What is the Authority's view?

The Authority supports applications for ground mounted solar panels which are sensitively located, are not unduly prominent in an area, do not require substantial alterations to or removal of historic building fabric, preserve the landscape and setting of the listed buildings and the contribution this makes to their significance, and preserves the residential amenity of neighbouring properties.

GROUND MOUNTED SOLAR: Do they require permission?

- **Outside of Conservation Areas:** planning permission required if more than 1 standalone solar panel. Planning permission not required unless the solar panel would be within a scheduled monument, would be more than 4 meters in height or within 5 meters of the boundary of the curtilage, or surface area, exceeds 9 square metres, or any dimension exceeds 2 metres. Additional restrictions apply to non-domestic buildings.
- **Conservation Areas:** same rules as outside Conservation Area and permission needed if greater than 2 metres in height in certain cases (prior approval may be required).
- **Listed Buildings:** listed building consent not required, unless impact on fabric from holes etc. Planning permission is required if within the curtilage of a listed building.

Specific requirements for listed building consent application:

- Drawing/plans (to scale) to identify the locations of proposed solar panels or tiles, means of fixing to the building (if applicable), full drawings of the solar panels or tiles, and any associated equipment.
- Specifications of proposed solar panels, including size and appearance and method statement for installation.
- Details of compliance with the Microgeneration Compliance Scheme.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

See further information on back page

WIND TURBINES

3.10 Wind turbines range from large, small to micro sized. Wind turbines are generally categorised by their size and generating capacity. Large scale turbines typically have a blade diameter exceeding 50 metres and a capacity above 1 megawatt (MW) and are often used in commercial wind farms. Small wind turbines usually have a capacity between 1 kilowatt (kW) and 100 kW, with blade diameters ranging from a few metres up to around 20 metres; these are suitable for small communities. Micro turbines are the smallest, with a capacity of less than 1 kW and blade diameters under 2 metres and are commonly installed on or near residential properties.

3.11 Large and small-scale wind turbines could affect the setting of listed buildings, and the character and appearance of conservation areas. Micro turbines would be considered, however, installing them on listed buildings may affect the building's fabric, and risks having a harmful visual impact particularly within conservation areas.

FIGURE 17: WIND TURBINE

3.12 All installations must comply with national legislation, including the Energy Act 2004 and subsequent amendments, which set out requirements for microgeneration and renewable energy developments.

WIND TURBINES: What is the Authority's view?

The Authority will support applications for microgeneration wind turbines where they are sensitively located in grounds of historic buildings, and do not have an unacceptable impact on the character of the landscape or townscape and preserve the residential amenity of neighbouring properties.

WIND TURBINES: Do they require permission?

- **Outside of Conservation Areas** and **inside Conservation Areas:** likely to require planning permission in most circumstances – the rules here are complex, please contact the Authority for further advice via **planning@southdowns.gov.uk**
- **Listed Buildings:** if attached to the listed building and planning permission in all circumstances.

Specific requirements for listed building consent application:

- Drawing/plans (to scale) to identify the locations of proposed wind turbine, means of fixing to the building (if applicable), full drawings of the turbine, and any associated equipment.
- Specifications of proposed turbine, including size and appearance and method statement for installation.
- Details of compliance with the Microgeneration Compliance Scheme.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

See further information on back page

AIR SOURCE HEAT PUMPS

3.13 Air source heat pumps (ASHPs) use electricity to extract heat from the air to heat a building. They work using a 'coefficient of performance' where for each unit of electricity used to operate the heat pump between 2.5 and 4 units of heat are produced. They are an efficient means of heating a building and can operate down to sub-zero external temperatures. Air source heat pumps will work best in a well-insulated building.

FIGURE 18: A TYPICAL DOMESTIC-SCALE AIR SOURCE HEAT PUMP (SELFBUILD.UK)

3.14 This system often requires the pipes, service holes and radiators to be larger than the standard or historic ones, to operate efficiently. This can affect or remove historic fabric and features, such as historic fabric, methods of repair to these areas, historic features and radiators etc: which is likely to require listed building consent. Care should be taken in siting the pumps as they can be visually intrusive and noisy. More recent models are less noisy.

AIR SOURCE HEAT PUMPS: What is the Authority's view?

The Authority will support the installation of new air source heat pumps and will approve applications for them when they are sensitively located so as to preserve the significance and character of historic buildings and conservation areas and preserve the residential amenity of neighbouring properties.

AIR SOURCE HEAT PUMPS: Do they require permission?

- **Outside of Conservation Areas:** planning permission is not generally required. Planning permission required if more than one for a non-detached dwelling/flat and if more than two for detached. There are restrictions on the pump's volume, placement on pitched/flat roofs and proximity to highways.
- **Conservation Areas:** planning permission required if the pump is on a wall/roof that fronts a highway or nearer to the highway than any of the dwelling.
- **Listed Buildings:** planning permission is required within the grounds of a listed building and listed building consent is normally required for the installation of heat pumps which are fixed to a building or alter fabric, otherwise listed building consent is not required.

Specific requirements for the submission of a listed building consent application:

- Drawing/plans (to scale) to identify locations of proposed air source heat pump' means of fixing to the building (if applicable), and any associated equipment or enclosure.
- Specifications of proposed heat pump, including size and appearance and method statement for installation, including details of associated alterations to existing building fabric.
- Details of compliance with the Microgeneration Compliance Scheme Microgeneration information.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

See further information on back page

GROUND SOURCE HEAT PUMPS

3.15 Ground source heat pumps (GSHPs) also use electricity to exchange heat within the ground to heat a building. Typically, they are more efficient than air source heat pumps due to the more constant ground temperatures but are usually more expensive. Horizontal loops can require large areas of land to operate and vertical GSHPs may require permission from the Environment Agency.

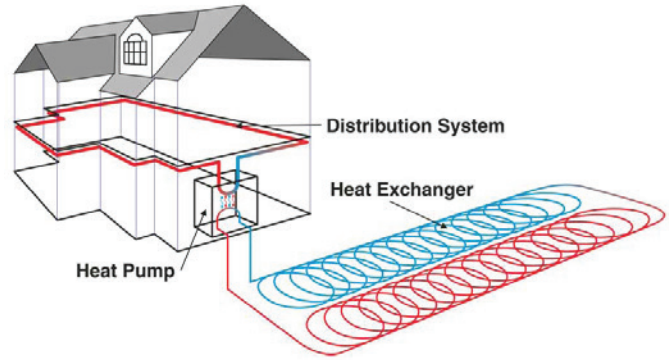

FIGURE 19: THE PRINCIPLES OF A HORIZONTAL LOOP GROUND SOURCE HEAT PUMP

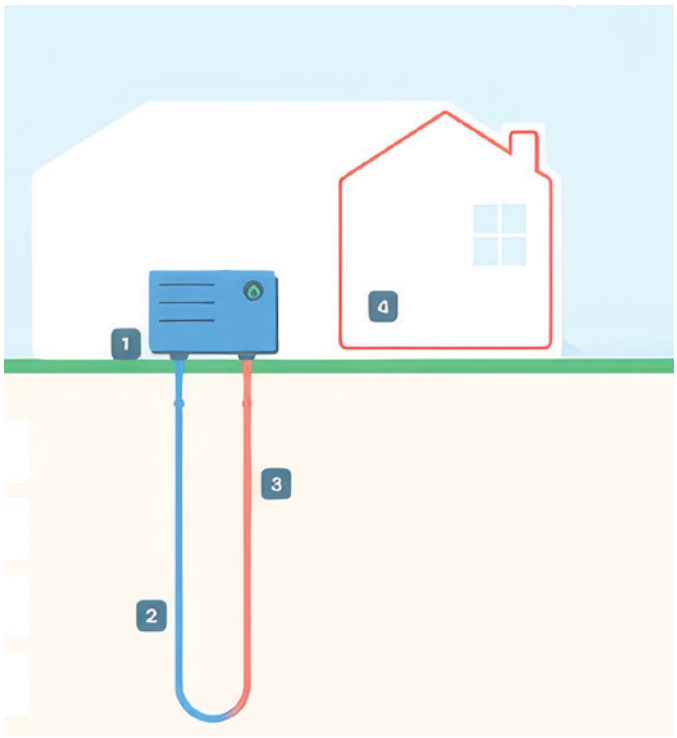

FIGURE 20: TYPICAL EXCAVATION AND INSTALLATION OF VERTICAL GROUND SOURCE HEAT PUMP LOOP (SELF BUILD)

FIGURE 21: EXAMPLE OF A BORE HOLE (HISTORIC ENGLAND)

FIGURE 22: TYPICAL PLANT FOR DOMESTIC HEAT PUMP (SELF BUILD)

3.16 Plant rooms associated with heat pumps house the main components of the heating system, sometimes including the heat pump unit itself, buffer tanks, control panels, and ancillary equipment. Adequate ventilation, accessibility, and safety measures are essential considerations when planning a plant room for heat pumps, ensuring reliable functionality and compliance with relevant building regulations.

3.17 Introducing plant rooms for heat pump systems within historic buildings requires a careful balance

between modern energy needs and the protection of heritage character. The installation of new plant rooms or adaptation of existing spaces can have a direct impact on the building's historic fabric, potentially involving alterations to walls, floors, or service routes. It is crucial to minimise interventions to original materials and distinctive architectural features, ensuring any changes are reversible where possible. If a new plant room is required the location should be discreet, avoiding harm to the building's visual significance and its wider setting.

GROUND SOURCE HEAT PUMPS: What is the Authority's view?

The Authority will support the installation of new ground source heat pumps and will approve applications for them when they are sensitively located to preserve the significance and character of historic buildings and gardens and conservation areas and preserve the residential amenity of neighbouring properties.

GROUND SOURCE HEAT PUMPS: Do they require permission?

- **Outside of Conservation Areas** and **inside Conservation Areas:** planning permission not required within the domestic curtilage. Planning permission may be required outside of the domestic curtilage.
- **Listed Buildings:** listed building consent not required. If there are no fixings to a building or alteration of fabric, otherwise listed building consent will be required.
- Archaeological considerations for ground works in some areas, may be required.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to **planning@southdowns.gov.uk**

See further information on back page

BATTERY STORAGE

3.18 On-site renewable electricity generation facilities can be used in conjunction with a large purpose made battery, to store electricity on site, when demand is low, so that the stored electricity can then be used when demand is high.

FIGURE 23: A TYPICAL DOMESTIC SCALE BATTERY STORAGE UNIT LINKED TO PV ON A ROOF (SOLARPANELINSTALLERS.UK)

BATTERY STORAGE: What is the Authority's view?

The Authority will support the installation of new battery storage systems and will approve applications which are sensitively located to preserve the significance and character of historic buildings and conservation areas, preserve the residential amenity of neighbouring properties, and where fire safety can be appropriately managed.

BATTERY STORAGE: Do they require permission?

- **Outside of Conservation Areas:** and **inside Conservation Areas:** depending on its physical size and location, planning permission may be needed.
- **Listed Buildings:** listed building consent would be required if unit installation required fixings or holes to historic fabric. Depending on its physical size, planning permission may be needed.

Specific requirements for listed building consent application:

- Drawing/plans (or annotated photographs) to identify the locations of proposed battery storage, means of fixing to the building (if applicable), and associated alterations to cabling and electrical supply.
- Specifications of proposed battery storage, including size and appearance and method statement for installation.

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to planning@southdowns.gov.uk

See Further Information on back page.

EV CHARGING

3.19 Electric vehicle charging points are dedicated charging facilities for electric vehicles. They can charge an electric vehicle faster than a standard domestic socket. They may be accommodated without harm to historic buildings and their setting, provided they are located in discreet places, such as on a small light post or freestanding charge point (see figure 24) on a wall or a less visible part of a building (see figure 25).

3.20 Consideration should be given to archaeological remains when considering ground works and service runs.

Freestanding

FIGURE 24: FREE STANDING CHARGING POINT IN RESIDENTIAL FRONT GARDEN. (REF: EVHACS)

EV CHARGING: What is the Authority's view?

The Authority will support applications for electrical vehicle charging points where they are sensitively located on or near historic buildings, do not require the loss of historic fabric and preserve the amenity of neighbouring properties.

EV CHARGING: Do they require permission?

- **Outside of Conservation Areas:** and **inside Conservation Areas:**
  Wall-mounted Outlets:
  planning permission not required, unless the outlet and casing exceed 0.2 cubic metres, would be within a scheduled monument or the curtilage of a listed building.

  Freestanding Chargers:
  planning permission not required, unless the upstand height exceeds 2.3m, or 1.6m within the curtilage of a dwelling house or block of flats, or is less than 2m from a highway, or would be within a scheduled monument or the curtilage of a listed building.
- **Listed Buildings:** listed building consent and planning permission required.

On-street charging may require separate permission from the Highway Authority.

Specific requirements for listed building consent application:

- Drawing/plans (or annotated photographs) to identify the locations of proposed charging point, means of fixing to the building (if applicable), and associated alterations to cabling and electrical supply.
- Specifications of proposed charging point, including size and appearance, and method statement for installation.

Attached to a building

FIGURE 25: A WALL MOUNTED CHARGE POINT (REF: POD ENERGY)

Based on current regulations (01/2026). The latest regulations should be checked or submit a 'do I need planning permission' (DINPP) to planning@southdowns.gov.uk

See Further Information on back page.

Appendix A: Do you need Consent/Permission

	Listed Buildings				General Houses		General Flats	
	CA		Outside CA		CA	Outside CA	CA	Outside CA
	pp	LBC	PP	LBC	pp	pp	PP	pp
Draught proofing doors and windows	✗	✗	✗	✗	✗	✗	✗	✗
Secondary glazing	✗	✓	✗	✓	✗	✗	✗	✗
New heating system/new condensing boiler or biomass boiler	✗	✓	✗	✓	✗	✗	✗	✗
Thermostatic radiator valves (TRVs)	✗	✗	✗	✗	✗	✗	✗	✗
Insulate hot water pipes and tanks	✗	✗	✗	✗	✗	✗	✗	✗
Swapping to energy efficient light bulbs	✗	✗	✗	✗	✗	✗	✗	✗
Solar panel	✓	✓	✓	✓	?**	?**	?**	?**
loft Insulation	✗	?**	✗	?**	✗	✗	✗	✗
Roof Insulation	✗	?**	✗	?**	✗	✗	✗	✗
Wall Insulation – internal	✗	?**	✗	?**	✗	✗	✗	✗
Wall Insulation – external	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
Slim. double or triple glazed windows	?*	✓*	?*	✓*	✓*	✗*	✓*	✓*

✓ Yes ✗ No ? Depends

PP = Planning Permission
LBC = Listed Building Consent
CA = Conservation Area

* Depends on panel projection, roof pitch, whether flat roof, whether height of panel project beyond highest part of roof, if elevation fronts a highway (CAs).

** Depends if works affectted building fabric.

*** PP required if insulation involves cladding of any part of the exterior of the dwelling with stone, artificial stone, pebble dash, render, timber, plastic or tiles.

FURTHER INFORMATION

This information is sometimes under review to reflect changes in legislation, policy and case law.

Historic England provides planning advice, and this is available online, including a list of all Good Practice Advice Notes (GPAs) and the Historic England Advice Notes (HEANs). Historic England Contact Details: call 0370 333 0607 or email **customers@HistoricEngland.org.uk**

- **Historic England - Traditional Buildings and Energy Efficiency**
- **Historic England - Whole Building Approach for Historic Buildings**
- **Historic England - Adapting Historic Buildings for Energy and Carbon Efficiency**
- **Historic England - Energy Efficiency and Retrofit in Historic Buildings**
- **Historic England - Upgrading Thermal Elements: Installing Insulation**
- **Historic England - Insulating Roofs in Historic Buildings**
- **Historic England - Modifying Windows and Doors in Historic Buildings**
- **Historic England - Traditional Windows: their care, repair and upgrading**
- **Historic England - Open Fires, Chimneys and Flues**
- **Historic England - Installing Heat Pumps in Historic Buildings**
- **Historic England - Installing Solar Panels**
- **Historic England - Insulating Solid Ground Floors**
- **Historic England - Insulating Suspended Timber Floors**
- **Historic England - Low and Zero Carbon Technologies in Historic Properties**
- **Historic England - Delivering on Climate Change Action and Heritage**
- Society for the Protection of Ancient Buildings (SPAB) Contact Details: call 020 7377 1644 or email **info@spab.org.uk SPAB website**
- The Sustainable Traditional Building Alliance (STBA) Contact Details: call 020 7704 3501 or email **info@stbauk.org STBA website** and information **STBA guidance**
- London Energy Transformation Initiative (LETI) Climate Emergency Design Guide **LETI Design Guide**
- South Downs National Park Authority (SDNPA) Design Guide **SDNPA Design Guide SPD**
- South Downs National Park Authority (SDNPA) Sustainable Construction **Sustainable Construction SPD**
- Sources of help - **How to find the right professional help**
- Permitted Development - **Permitted Development & Article 4 Directions**
- Building Regs link **Building regulations information** and Historic England's guide to Building Regulations **Energy Efficiency and Building Regulations**
- Microgeneration Guidance - **Microgeneration information**