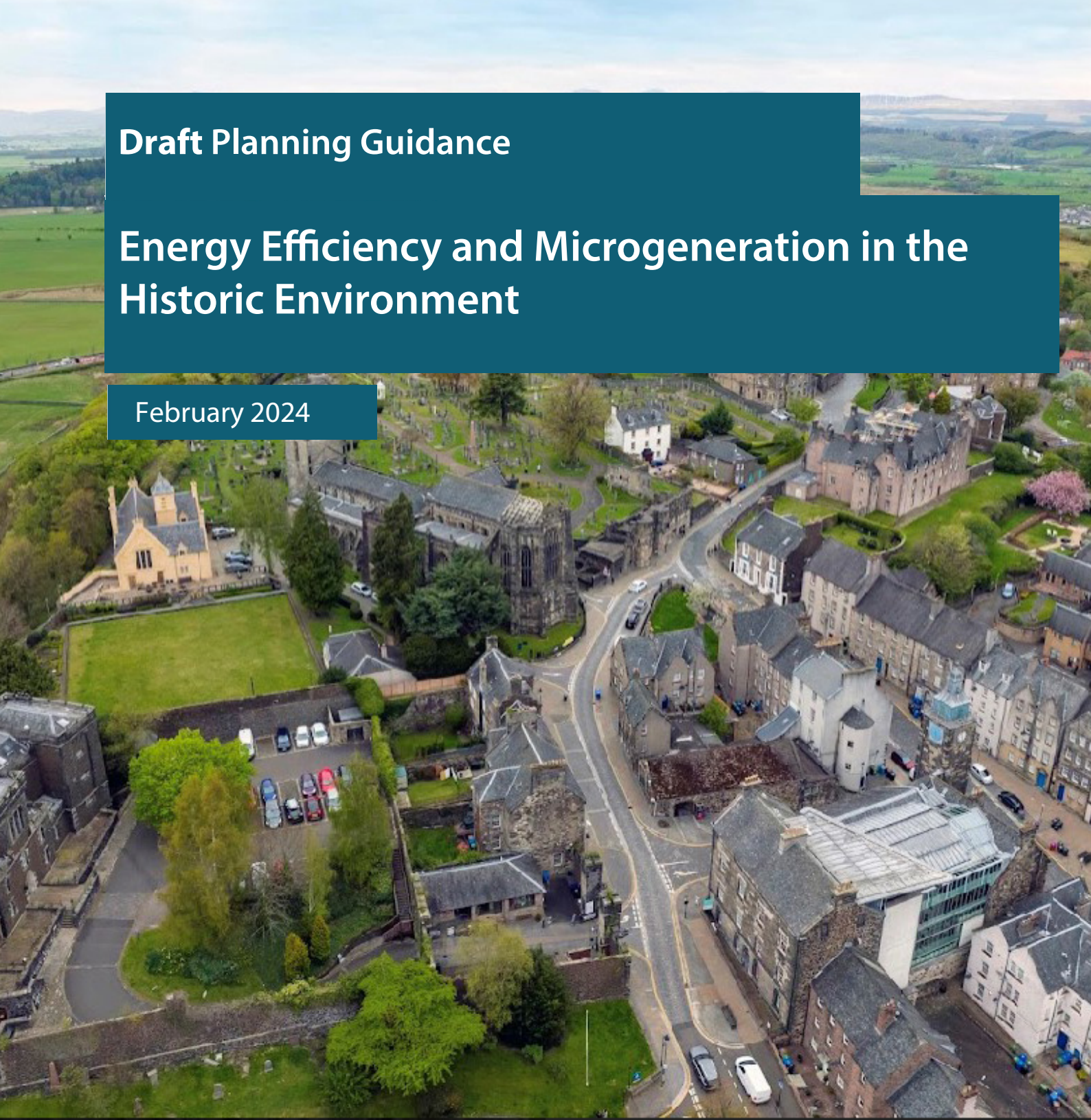


Draft Planning Guidance

**Energy Efficiency and Microgeneration in the
Historic Environment**

February 2024



****For Consultation Purposes Only****

The table below summarises the proposed changes included in this draft guidance document compared to the guidance contained in the adopted [Supplementary Guidance: Historic Environment - Energy Efficiency and Micro-Renewables](#), which this document proposes to replace. The information in this table does not constitute material planning guidance.

Section	Summary of changes made	Reasons/comments
1.0 Introduction 2.0 Purpose and aim of this guidance	Purpose and aim of guidance updated, and inclusion of National Planning Framework 4 (NPF4) references.	The clarify intent of guidance and the new statutory development plan for Stirling
3.0 Development Plan Context	Updated to include the relevant provisions of the Local Development Plan (LDP) and NPF4.	To clarify the provisions of the Stirling development plan.
4.0 Statutory Requirements	Additional information setting out how applications for planning permission and listed building consent will be individually assessed.	To appropriately update the guidance.
5.0 Energy Efficiency and Saving in Historic Buildings	Updated to improve clarity of guidance in relation to energy efficiency measures and inclusion of information related to building health checks.	To appropriately update the guidance.
6.0 Choosing the right proposal - specific guidance on microgeneration technologies to help plan and design your proposal	Paragraph 6.2: Addition of step-by-step guidance to assist with the selection of appropriate micro-generation technology.	To achieve a balance between the protection of the historic environment and the accommodation of appropriate micro-generation equipment.
	Paragraphs 6.6 – 6.7 (Solar Panels): Addition of clearer and more flexible guidance regarding the siting, design and fitting of solar panels. Removal of guidance related to fitting panels flush with the roof due to the potential for greater impacts due to loss of historic fabric.	To give more support for appropriately sited and designed installations.

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	Paragraphs 6.12 – 6.14 (Wind Turbines): Updated guidance to provide support for building-mounted micro-wind turbines in appropriate circumstances.	To give more support for appropriately sited and designed installations.
	Paragraphs 6.15 – 6.19 (Air source heat pumps): Updated to include greater clarity on the circumstances under which proposals will receive support.	To give more support for appropriately sited and designed installations.
7.0 General guidance for all types of microgeneration proposals	Paragraphs 7.2 – 7.3 (Understanding the character, significance, and interest of your historic building, its setting and place): Addition of guidance setting out the requirements for character assessments required under Policy 7 of NPF4.	To clarify the provisions of NPF4.

Contents

Section One	
Introduction	3
Section Two	
Purpose and Aim Of This Guidance.....	4
Section Three	
Development Plan Context	5
Section Four	
Statutory Requirements.....	7
Section Five	
Energy Efficiency and Saving in Historic Buildings	9
Section Six	
Choosing The Right Proposal - Specific Guidance On Microgeneration Technologies To Help You Plan and Design Your Proposal	10
Section Seven	
General Guidance For All Types Of Microgeneration Proposals.....	16

Section One

1. Introduction

- 1.1 Stirling Council is committed to lowering greenhouse gas emissions across the Council area, in line with Scotland's objective of achieving net-zero emissions for all greenhouse gases by 2045.

- 1.2 The historic environment has an important role in accommodating and facilitating a shift towards low and zero-carbon energy sources and reducing energy consumption to support our climate objectives. We recognise, however, that the changes necessary to achieve these objectives could negatively impact the historic environment assets and places. Therefore, in assessing applications for planning permission or listed building consent, we will ensure that the character and appearance of the historic environment is protected from harm, including the special architectural or historic interest and setting of listed buildings.

Section Two

2. Purpose and aim of this guidance

- 2.1 The purpose of this guidance is to support the interpretation and application of the relevant policies contained within the statutory development plan for Stirling, which comprises of adopted plans Stirling Local Development Plan (October 2018) and National Planning Framework 4 (February 2023).
- 2.2 This guidance supports the relevant policies of the development plan by clarifying the circumstances in which proposals within the historic environment may be supported in determining applications for planning permission and listed building consent. This guidance must therefore be read and applied alongside the relevant policies of the development plan and associated guidance.
- 2.3 In setting out the detailed requirements and considerations for energy efficiency and generation proposals, this guidance aims to achieve an appropriate balance between preserving the character and appearance of the historic environment and addressing the climate crisis.
- 2.4 This guidance is aimed at building owners and occupiers considering making energy efficiency improvements or installing microgeneration equipment by setting out the options available and how to minimise their direct impact on the visual appearance of historic buildings and places, as well as architects, surveyors, or other building professionals who need to choose the right equipment and method of installation to avoid any adverse effects on such assets.

Section Three

3. Development Plan Context

Relationship to the Development Plan

- 3.1 The [development plan for Stirling](#) comprises the adopted Stirling Local Development Plan, October 2018 (LDP), and National Planning Framework 4, February 2023 (NPF4).

National Planning Framework 4 Policies of Relevance

- 3.2 **Policy 1 (Tackling the climate and nature crises):** requires significant weight to be given to the climate and nature crises when considering all development proposals.
- 3.3 **Policy 2 (Climate mitigation and adaptation):** is intended to encourage, promote and facilitate development that minimises emissions and adapts to the current and future impacts of climate change.
- 3.4 **Policy 7 (Historic assets and places):** is intended to protect and enhance historic environment assets and places, and to enable positive change as a catalyst for the regeneration of places.
- 3.5 **Policy 11 (Energy):** is intended to encourage, promote and facilitate all forms of renewable energy development onshore and offshore.

Stirling Local Development Plan Policies of Relevance

- 3.6 **Policy 7.7** of the Stirling Local Development Plan aims to ensure Stirling's historic environment is managed sensitively through careful consideration of the cultural, educational, economic, and social value of its assets.

- 3.7 This planning guidance is intended to be read in conjunction with all other relevant local plan policy and guidance. In particular, relevant policy and guidance include Policy 4.1 'Low and zero carbon buildings' and its accompanying Planning Guidance '[Low and zero carbon development](#)', Supplementary Guidance '[Windows and Doors](#)'; and all other relevant policies and [guidance](#), including Residential Alterations and Extensions, Archaeology, Landscape, Trees etc.
- 3.8 The Council's [Conservation Area Appraisals](#) also support Policy 7.7 by providing specific guidance on each conservation area.

4 Statutory Requirements

- 4.1 **Listed Building Consent** is required for any works (internal or external) affecting the character of a listed building, or any of associated structure which predates 1948 (date). This requirement means that any physical alteration to a listed building arising from the proposed installation of energy saving measures or microgeneration installations, will require consent. However, it is likely that most energy-saving measures and improvements will not result in material alterations (visual or physical) that would require such consent.
- 4.2 In determining an application for listed building consent, the Council has a statutory duty to have 'special' regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest that it possesses, in accordance with Section 14(2) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997.
- 4.3 **Planning Permission** is required for any proposal for development that does not benefit from permitted development rights, which materially alters the external appearance of any building or structure.
- 4.4 **Scheduled Monument Consent** is required for any work which would demolish, damage, remove, repair, alter or add to a scheduled monument, or to carry out any flooding or tipping operations on land in, on, or under a monument within the area of the scheduled monument as outlined on the designation map and up to one metre beyond. Scheduled Monument Consent is required to be obtained from Historic Environment Scotland in advance and is in addition to any relevant planning permissions.

Assessing proposals for Listed Building Consent and Planning Permission

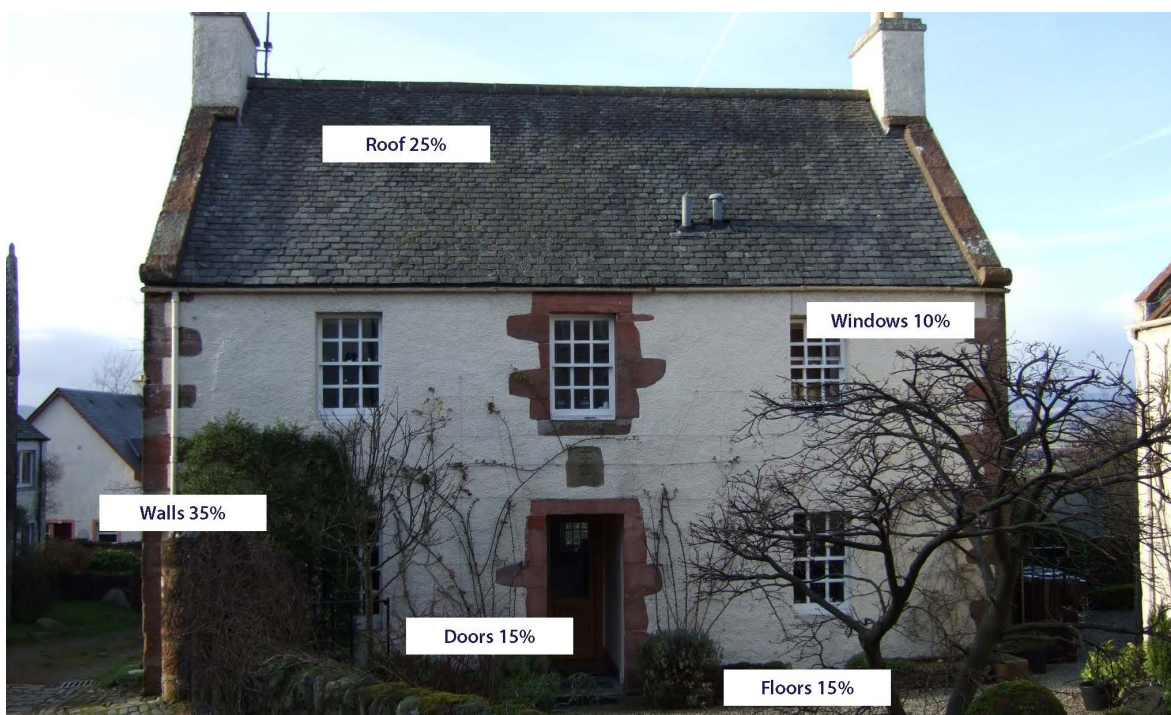
- 4.5 **Assessing listed building consent proposals:** the main principle when considering the installation of microgeneration equipment affecting listed buildings, such as solar panels or wind turbines, is that special regard is to be given to the desirability of preserving the building, its setting or any features of special architectural or historic interest which it possesses in accordance with Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. The design, location, quantity, and size of proposed equipment should therefore be carefully considered to avoid negative impacts.

4.6 **Assessing planning application proposals:** when determining planning applications the Council is legally required to have regard to the statutory development plan, unless material considerations indicate otherwise. As NPF4 and the LDP policies now form the development plan, all policies of the development plan are to be read and applied as a whole.

Section Five

5. Energy Efficiency and Saving in Historic Buildings

5.1 Improving energy efficiency will lower carbon emissions and energy bills and often increase the comfort of a building for its occupants while ensuring its long-term health; it might also be necessary to achieve compliance with legal requirements. Energy efficiency improvements, such as insulation or draught-proofing, should be undertaken before the installation of microgeneration equipment to secure maximum sustainability and cost-saving benefits.



This image shows where and how much heat is typically lost in a building.

5.2 Maintaining and ventilating buildings properly is also important for improving energy performance and better building health. The Stirling City Heritage Trust offers a [Traditional Buildings Health Check Scheme](https://stirlingcityheritagetrust.org) that assesses the condition of buildings and provides impartial feedback to help inform maintenance and repair. More information can be found on their website: Traditional Buildings Health Check (stirlingcityheritagetrust.org).

5.3 In the optimisation of energy efficiency measures, care must be taken to protect the fabric and character of a historic building and to ensure alterations are reversible or are of minimal intervention with its fabric. Consideration should be given to the compatibility of any new material with that of the building's traditional materials to ensure the introduction of the new material does not lead to the future deterioration of the building.

6. Choosing the right proposal - specific guidance on microgeneration technologies to help plan and design your proposal

6.1 When it comes to choosing an individual, or combination of, microgeneration technology for your building, there are various options available. This means that you should be able to find one or more technologies to meet your requirements while respecting the character and appearance of the historic environment.

6.2 To find the right solution for a building or structure that is either listed or within a conservation area, it's important to identify the principal or important elevations and particular features that contribute to its character and historical significance. The recommended steps you should go through when choosing your proposal are set out below.

- **Establish requirements and potential options:** Assess your energy requirements to determine how much energy you want to generate and the range of potential options for your particular building. The Council is developing an energy masterplan containing information that will help identify the energy efficiency measures and renewable energy options for your specific building or area – further information can be found on the Council's website [Sustainable Energy](#).
- **Identification of principal elevations:** The first step involves identifying the primary or important elevations of the historic building. These are typically the facades that are most visible and define the building's overall character. These elevations often face driveways, streets, public spaces, or other important viewpoints.
- **Identification of important features:** The next step is to identify any features of special architectural or historic interest which the historic building possesses. These features could include things like ornate detailing, decorative elements, historic windows, roof structures, chimneys, and other design elements that are important to the building's character and appearance. Information to assist this step may be found within the Council's [Conservation Area Appraisals](#) or, in the case of listed buildings, within list descriptions available on [Historic Environment Scotland's](#) website. While these sources should not be the sole basis of any identification process, they can provide useful information to support this stage.

- **Assessment of impact:** After identifying the important elevations and special features, an assessment can then be made about how the design, siting and installation of micro-generation equipment might impact upon the historic building in accordance with the guidance contained herein.
- **System selection:** The next step is to select a system that would preserve or enhance the listed building or conservation area having regard to the relevant policies and guidance contained within this guidance document.
- **Apply for pre-application advice:** Prior to submitting a formal application to the Planning Authority, it is advisable to seek [pre-application advice](#) regarding the merits of your proposal and the type of application needed and accompanying information, including supporting statements.
- **Make a formal application:** The final step is to apply for planning permission and/or listed building consent. Further information on the application process can be found on the Council's Planning Toolbox: [Planning toolbox and guidance | Stirling Council](#).

6.3 When assessing proposals for the installation of microgeneration equipment in the historic environment, consideration will be given to siting (location and positioning), design and appearance (size, form, materials, colour, movement, and housing), quantity, impact on amenity, and impact on historic fabric (method of fixing, loss of historic materials or features, and reversibility). Support for proposals will also depend on the building, its setting and context, and the type of equipment proposed.

6.4 The following guidance should therefore be taken into account when planning and designing your proposal:

Solar water heating panels and solar electricity panels

6.5 There are two types of solar panel systems: solar water heating panels or solar thermal systems, which warm water, and solar photovoltaics (PVs), which generate renewable electricity. However, for the purposes of this guidance, both systems are treated as synonymous and referred to simply as "solar panels," unless stated otherwise.

Guidance on the principle of solar panels

- 6.6 Within Conservation Areas, proposed solar panels on buildings, walls, free-standing structures, or other built features, will be supported where they are sensitively located and designed, and hidden from main public views¹. Therefore, installing solar panels on the main elevations of buildings or in areas visible to the public should generally be avoided.
- 6.7 When assessing solar panels in relation to listed buildings, it is important to first identify the principal or important elevations, or particular features which contribute to character, as noted in paragraph 6.2 above. The assessment should be undertaken on the basis of the impact on the character and appearance of the listed building or its setting. Visibility considerations, as outlined in paragraph 6.6 above, do not apply to the same degree in the assessment of listed buildings. This is because an assessment about whether a proposal preserves or enhances a listed building will be primarily based on the impact of the proposal on the building itself rather than how it is seen or understood from certain public viewpoints.

Guidance on the location and appearance of solar panels

- 6.8 To preserve listed buildings and conservation areas in accordance with the development plan, the following should be considered when deciding on the proposed location, siting, and appearance of solar panels:
- 6.8.1 The proposed installation must be located at least 300 millimetres below the roof ridge and in from the edges of the roof including the eaves line.
- 6.8.2 Selecting solar panels in a matte or non-reflective finish, which relate as closely as possible to the material, colour and finish of the existing roof covering can ensure they are less visible.
- 6.8.3 On lead roofs, extra regard must be taken with the design, fixing and location of the proposed installation to allow the natural expansion and contraction of the material.

¹ Main public views include; from any public street/road or lane/path, from elevated sites, vistas within the area and in distance and in roofscape and townscape views.

Things to consider before installing solar panels:

- 6.9 Arrange for a structural survey of your roof before installation to ensure that it can accommodate the weight of the proposed panels without detriment to the structural integrity of the building.
- 6.10 Determine that there is sufficient direct sunlight potential to achieve the required levels of energy generation. Where energy output would be affected by shading from trees that contribute to the character and appearance of a conservation area, any proposal to remove them will generally not be supported. More information on the process for undertaking works to protected trees is available on the Council's website: [Trees and high hedges](#).
- 6.11 Carry out an inspection of your roof to determine the presence of bats or roosts, which are protected by law. For more information please visit NatureScot: [Bats and licensing](#).

Micro wind turbines

- 6.12 All micro-wind turbine installations, including their foundations, fixings, and associated cabling, have the potential to significantly impact the character and fabric of a listed building or conservation area.
- 6.13 Micro-wind turbines have traditionally been particularly visible, especially when they are in motion. Such visual impact can be considered harmful to listed buildings and conservation areas and can be difficult to support; this is particularly true for building-mounted turbines. In recent years, however, there have been significant improvements in the design of these turbines, leading to a wide range of options in terms of types and sizes. As a result, support will be given for building-mounted micro-wind turbines in appropriate circumstances.
- 6.14 However, in locations outwith conservation areas, a single freestanding micro-wind turbine may be supported where its siting, design, and scale would not harm the setting of a listed building, provided all other relevant policy criteria and guidance can be met.

Heat Pumps – ground (geothermal), air, water source

- 6.15 A heat pump is a device that can transfer low-temperature heat from a renewable source such as ambient air, water, or the ground and raise it to a higher temperature using a refrigerant cycle.

Guidance on air source heat pumps

- 6.16 Most heat pumps use air as the heat source; many are also reversible by being capable of heating and comfort cooling. Heat pumps require internal and external housing units and must therefore be sited sensitively to minimise visual impacts.

- 6.17 Proposals located on elevations hidden from main public views will be supported, including on front or principal elevations where screened behind existing structures such as ancillary buildings and walls or substantial and well-established landscaping features such as trees and hedging. Where an appliance requires to be screened from public view, care should be taken to ensure its operational performance is not compromised.

Guidance on ground and water source heat pumps

- 6.18 Ground-source heat pumps, also known as geothermal, and water-source heat pumps will generally be encouraged and supported due to their low-impact nature. These types of micro-generation are highly efficient due to the relatively small amount of energy required to transfer the heat.
- 6.19 Careful consideration, however, must be given to the siting of indoor units to avoid damage or removal of original features or historic fabric such as plasterwork, such as skirting and cornicing, or joinery work, such as architraves and panelling.

Biomass heating systems

- 6.20 Biomass heating systems utilise organic materials, such as wood pellets, wood chips, or agricultural residues, to generate heat.
- 6.21 These systems burn biomass fuel in specially designed boilers or furnaces, which then heat water or air for space heating or water heating purposes. Biomass heating systems can therefore be installed where buildings can be utilised for housing equipment and fuel storage

- 6.22 Support will be given to biomass heating installations where sensitively located and can be housed and accessed without the need for extensive alterations that would adversely affect a listed building or its setting, or the character and appearance of a conservation area.
- 6.23 Extract flues should be concealed within existing chimneys wherever possible. Where that is not possible, they should extrude from the roof and be painted in an appropriate colour in a matte finish.

Hydroelectric systems

- 6.24 Micro-hydroelectric systems are small-scale hydroelectric systems that generate electricity using flowing or falling water on a smaller, localised level. These systems are typically designed to meet the energy needs of individual homes or buildings. They often involve the installation of a turbine or waterwheel in a water course, which is connected to a generator to produce electricity.
- 6.25 Historic mill buildings and sites can therefore make for suitable locations to install a new hydroelectric system, particularly where this will reuse or reintroduce waterwheels and other associated equipment. It may also be possible to contain a new system in an existing outbuilding or to construct a discreet new building.
- 6.26 When assessing proposals for the installation of hydroelectric systems consideration will be required to be given to existing features and to the archaeological impact of any new works.
- 6.27 This type of development may require authorisation from the Scottish Environment Protection Agency (SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 and contact should be with them to determine the level of authorisation needed. Relevant guidance on run-of-river hydropower schemes, including a Controlled Activities Regulations screening checklist, can be found on the [Scottish Environment Protection Agency's](#) (SEPA) website.

7. General guidance for all types of microgeneration proposals

- 7.1 When it comes to selecting and planning your microgeneration proposal, it is essential to consider the following guidelines to support your application(s) and to prevent any negative effects on the character or appearance of historic environment assets and places and their surroundings.
- 7.2 **Understanding the character, significance, and interest of your historic building, its setting and place:** applications for the proposed installation of microgeneration equipment must be accompanied by an assessment, such as character² or design³ statement, that shows an understanding of the cultural significance of the affected historic asset or place under Policy 7 of NPF4.
- 7.3 The assessment must consider the likely visual, physical and cumulative impacts of the relevant proposal(s) on the architectural, historic, or cultural interest or significance of any affected listed building or conservation area, which will inform the planning assessment of the proposal. It is, therefore, essential to have a good understanding of the architectural, historic and/or cultural interest or significance of the building or area in order to preserve the heritage asset or place; this should be achieved by following the step-by-step guidance set out under paragraph 6.2 above.
- 7.4 **Safeguarding setting:** The setting of a historic asset often extends beyond its physical boundary and can include the surrounding landscape or the urban townscape. It refers to how the surroundings of an historic building or asset contribute to how it is appreciated, experienced and understood in its specific location.
- 7.5 When it comes to planning your proposal, it is important to ensure that it would not impact negatively on the setting of a historic building, asset or place.

² A character statement identifies those special architectural, historic, and/or cultural characteristics which make an historic building or area worthy of conservation. Its purpose is to evidence a clear understanding of those features which contribute to the building or area's distinctive character to inform how they will be preserved or enhanced. A character statement generally includes information on the building or area's history, architecture, setting, landscape and cultural significance. In addition, it may contain guidance on design principles, use of materials, colours, finishes for alterations to existing buildings or any new development within the area to ensure retention of character.

³ A Design Statement explains the design concept behind a proposal affecting the historic environment and how it takes account of the significance of the building or area, its character, features and setting.

- 7.6 **Reducing physical alterations:** It is important to site, design and install your proposal to minimise the extent of physical alterations to the building, and these alterations should be reversible by ensuring that they can be made good with the correct traditional materials after fixings have been removed. Particular care should be taken to avoid damage to, and loss of, historic fabric during, or as a result of, installation.
- 7.7 **Removal:** Once obsolete, micro-generation equipment should be removed at the earliest opportunity and the historic asset made good using the appropriate methods and materials. Planning conditions may be imposed to ensure timeous removal.
- 7.8 **Buried archaeology:** Systems with underground elements, such as ground and water source heat pumps and free-standing solar installations, can potentially damage underground archaeology. The advice of Stirling Council's Archaeologist should be sought prior to the submission of any application.
- 7.9 If a site is designated a scheduled monument works may require Scheduled Monument Consent, which should be sought from Historic Environment Scotland.
- 7.10 **Tree protection:** Similar to the considerations for buried archaeology (above), systems with underground elements have the potential to damage tree roots to the detriment of the health and stability of the affected tree. Such proposals should have regard to, and accord with, the relevant provisions of Policy 10.1 in relation to development impact on trees and hedgerows. The advice of Stirling Council's Tree Officer should be sought prior to the submission of any application

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Formats

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