

Planning Policy

Technical Advice Notes

Technical Advice Note 2:

Energy Statements

Technical advice to assist decision makers and applicants in applying Policy HP11 of the Sites and Housing Plan

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Energy Statements

CONTENTS

1. INTRODUCTION	3
2. POLICY CONTEXT	3
3. THE ENERGY STATEMENT	4
4. FREQUENTLY ASKED QUESTIONS	6
5. SUSTAINABLE BUILDINGS AWARD	7
6. USEFUL WEBSITES	8
7. HOW TO GET IN TOUCH WITH PLANNING POLICY?	9
APPENDIX 1 - EXTRACT OF SITES AND HOUSING POLICY HP11	10
APPENDIX 2 - EXAMPLE OF GOOD PRACTICE PARTS A & B	12

1. Introduction

- 1.1 In February 2013, Oxford City Council adopted the Sites and Housing Plan. This includes Policy HP11 – Low Carbon Homes (see Appendix 1)
- 1.2 This Energy Statement Technical Advice Note (TAN) sets out practical guidance for applicants on the requirement to submit an Energy Statement.
- 1.3 It sets out the information that we expect to see in a completed Energy Statement (to be submitted with a planning application), so that the Council can make an informed decision. The TAN also sets out which planning applications will require an Energy Statement.

2. Policy Context

- 2.1 **The National Planning Policy Framework (NPPF) (paragraph 93-98)** sets out the government’s overarching strategy and policy approach for mitigating and adapting to climate change. The NPPF states that supporting the delivery of renewable and low carbon energy and associated infrastructure is central to all dimensions of sustainable development.
- 2.2 The NPPF also states that local authorities should actively support energy efficiency improvements to existing buildings and have a positive strategy to promote energy from renewable and low carbon sources, proactively seeking to mitigate any harmful impacts.
- 2.3 **The Core Strategy (Policy CS9 – Responding to Climate Change)** sets out a commitment to optimising energy efficiency through a series of measures including the use of technologies that achieve Zero Carbon developments. A key strategic objective of the Core Strategy seeks to maximise Oxford’s contribution to tackling the causes of climate change and minimise the use of non-renewable resources.
- 2.4 **The Sites and Housing Plan (Policy HP11 – Low Carbon Homes)** introduced a requirement to submit an Energy Statement to show how energy efficiencies have been incorporated into the development.
- 2.5 **This Technical Advice Note must be read in conjunction with Policy HP11,** (see Appendix 1).

3. The Energy Statement

What is an Energy Statement?

- 3.1** An Energy Statement is a document, submitted with a planning application to inform the local planning authority about the energy efficiencies made throughout the development. This includes information about how the development takes account of passive solar gain or how renewable and low-carbon energy technologies will be incorporated into the development.
- 3.2** If an Energy Statement is not submitted (or does not include the required information) this could delay the application process.

When is an Energy Statement required?

- 3.3** There are two parts to the Energy Statement. Box 1 shows when an energy statement is required for different sizes and types of residential development.

When is an Energy Statement Required?

PART A: Applies to all residential and student accommodation development. This applies to all new units but does not apply to residential extensions.

Part B: Applies to all qualifying development as set out in HP11. These are developments of:

- 10 or more dwellings
- 20 or more student rooms
- 500m² or more of student accommodation (gross internal area) even where there are less than 20 rooms.

- 3.4** For clarity, applicants completing Part B also need to complete Part A of the Energy Statement.
- 3.5** An Energy Statement should present technical data while remaining easy to read and to understand. Clearly laid out tables should be used for ease of reading and comparison. Site plans should be used where possible, e.g., to indicate suitable roof areas for installing solar technologies or the location of a plant room. References should be used to indicate where the data has been obtained from.
- 3.6** Part B is for qualifying developments and shows the information that the City Council requires in order to make an assessment of whether or not the development will meet the energy needs to come from renewable or low-carbon technologies.
- 3.7** For the purposes of this policy 'energy needs' are considered to be the *total energy* used in the building. i.e., both Regulated and Unregulated energy. Regulated Energy is covered

by the Building Regulations and includes that used for space heating, hot water, lighting, and to run pumps and fans. Unregulated energy is the remaining energy and includes that used to run appliances/ equipment and for cooking.

What qualifies as Low Carbon Technologies as set out by Policy HP11?

3.8 Policy HP11 includes the phrase “renewable or low carbon technologies”. The policy states:

Planning permission will only be granted for proposals for residential and student accommodation development if the development includes an element of on-site renewable or low-carbon technologies where practicable.

3.9 The phrase “low carbon technologies” is included in the policy to allow certain micro-generation technologies that are considered to be “low-carbon” (such as gas fired Combined Heat and Power) are acceptable substitutes for renewable technologies (such as solar panels).

3.10 It should be noted that although LED light bulbs are considered to be a low-carbon alternative to ordinary light-bulbs they are not considered to be an acceptable substitute for low-carbon technologies for the purposes of this policy.

Does the Energy Statement replace the Natural Resources Impact Analysis (NRIA) SPD?

3.11 Part B of the Energy Statement will replace the NRIA checklist for qualifying residential and student accommodation developments. This will occur once improvements to Part L of the Building Regulations have been made over and above the 2010 Building Regulations. This is expected in 2014. Policy CS9 of the Core Strategy requires that qualifying developments must demonstrate how they deliver sustainability through the completion of an NRIA checklist which is set out in the NRIA SPD. Qualifying housing and student accommodation development proposals are required to submit an NRIA until October 2014.¹

3.12 All housing and student accommodation developments will be required to submit Part A of the Energy Statement as part of the supporting information accompanying the planning application from the adoption of the Sites and Housing Plan.

¹ This is the date that Part L of the Building Regulations is expected to be updated to reflect higher energy efficiency standards.

4. Frequently Asked Questions

Where can I find information about different types of renewable technologies?

- 4.1 The Energy Savings Trust provides information on choosing a renewable technology that is appropriate for your location.
- 4.2 Visit www.energysavingstrust.org.uk for more information about how the Energy Savings Trust can assist you in choosing the right renewable technology for your property.

What happens if the site isn't suitable for renewable technologies and therefore can't meet the requirement?

- 4.3 There may be instances when it is not possible to meet the requirements for renewable energy on-site. In such cases you will still be required to show that you have considered all reasonable options and give a clear explanation as to why you consider the requirement can be met.
- 4.4 It may be possible to achieve carbon reduction through the design of the building such that it exceeds Building Regulations minimum standards. This approach must be agreed with the Council prior to the submission of an application.

What type of renewable technology is appropriate in areas of the city where features of the historic environment should be conserved for their heritage value?



Osney Island, solar panel installation

Eco-house

Award winning scheme in Jericho

- 4.5 Sometimes it would not be appropriate for visually intrusive technologies to be used where to do so would have a harmful impact on the heritage significance of designated and undesignated heritage assets or their settings. However, there may be alternative technical solutions to overcome this.
- 4.6 Importantly careful planning can avoid potential conflict between competing priorities. Whilst in many instances solar panels may not require the specific grant of planning permission from the City Council, there will be instances where permission is required.
- 4.7 With understanding of the potential visual impacts; knowledge of appropriate technologies and care about siting and installation details, it will often be possible to mitigate or even eliminate any harm. The solar panel installation at Osney, pictured above, shows that with careful planning solar panels can be installed within a

conservation area without being of detriment to the character and visual amenity of the area. In fact the Ecovation website states:

- 4.8** *“We had a resoundingly positive experience when dealing with the local planners. Although we live in an Article 4 conservation area, we kept within planning regulations because the solar panels were not installed on the street face of the house.”*
- 4.9** The City Council’s Heritage Team is developing a Heritage and Energy efficiency Tool (HEET) to help property owners, consultants and contractors think through the issues, identify the key priorities and help select the most appropriate solution whether new technologies or energy efficiency improvements.. The ‘toolkit’ is being developed with the Building Research Establishment (BRE), local architects and building owners and will be available shortly. The finished project is part of a suite of projects that are being undertaken as a part of the Oxford Heritage Plan.

How do you expect me to pay for these requirements, especially at a time when there is less and less money available?

- 4.10** It is recognised that councils must ensure that they do not place undue burdens on the development industry. Renewable/ low carbon technologies can result in significantly lower building running costs and some will qualify for payments through the Feed-in Tariff or Renewable Heat Incentive. These are factors which will potentially increase the attractiveness of the development to prospective purchasers or tenants, with corresponding increases in resale or rental value.

5. Sustainable Buildings Award

- 5.1** The David Steel Sustainable Buildings Award from Oxford City Council aims to recognise leading sustainable building developments in Oxford.
- 5.2** This award is nominated in memory of David Steel, who made a valuable contribution to the City Council and the Climate Change Action Team. Developments are assessed on the level and quality of the environmentally friendly solutions incorporated.
- 5.3** The award has been running since 2006 and previous winners have included Magdalen College School’s “New Building”, the Ruth Deech Building at St. Anne’s College, Blue Planet Corner in Jericho, and the Kendrew Quad at St. John’s College. A link can be found below in the “useful websites” section.

6. Useful Websites

- 6.1 **Sites and Housing Plan:** Link to the Sites and Housing Plan page on the Oxford City Council website – www.oxford.gov.uk/sitesandhousing
- 6.2 **Energy Statement TAN:** Link to the Energy Statement Page on the Oxford City Council website – www.oxford.gov.uk/TAN
- 6.3 **Oxford City Council Climate Change pages:** A useful resource including information on what you can do to save energy in Oxford, and the latest initiatives to promote mitigation and adaptation www.oxford.gov.uk/climatechange
- 6.4 **Sustainable Buildings Award:** Link to the Sustainable Buildings Award page on the Oxford City Council website www.oxford.gov.uk/sustainablebuildingsaward
- 6.5 **Heritage Plan Climate Change pages:**
<http://www.oxford.gov.uk/PageRender/decP/HeritageClimatechangeandRegeneration.html>
- 6.6 **Energy Savings Trust:** The Energy Savings Trust Foundation gives impartial, accurate and independent advice to communities and households on how to reduce carbon emissions, how to use water more sustainably and how to save money on energy bills. www.energysavingtrust.org.uk
- 6.7 **Carbon Trust:** An organisation set up to help businesses, local government and others reduce their carbon emissions through tools such as EN:Planner www.carbontrust.com
- 6.8 **Low Carbon Hub:** The Low Carbon Hub provides resources, training and advice to communities across Oxfordshire www.lowcarbonhub.org
- 6.9 **Building Research Establishment (BRE) website:** BRE offers expert, impartial knowledge and advice for the built environment sector and beyond. www.bre.co.uk
- 6.10 **English Heritage (Climate Change) website:** This part of the English Heritage website provides links to research and guidance relating to climate change and its implications for the historic environment. www.english-heritage/climatechange
- 6.11 **Ecovation Website:** A useful resource of projects undertaken by homeowners across Oxford and Oxfordshire demonstrating how eco-credentials have successfully been implemented when undertaking home improvements and extensions. www.ecovation.org.uk

7. How to get in touch with planning policy?

By phone: 01865 252847

By email: planningpolicy@oxford.gov.uk

By post:

Planning Policy Team
3rd Floor, St. Aldate's Chamber
109-113 St. Aldate's
Oxford
OX1 1DS

Appendix 1 - Extract of Sites and Housing Policy HP11

Low Carbon Homes

A3.13 **Core Strategy Policy CS9 – Energy and Natural Resources** sets out a commitment to optimising energy efficiency through a series of measures including the utilisation of technologies that achieve zero carbon developments. A key strategic objective in the Core Strategy seeks to maximise Oxford’s contribution to tackling the causes of climate change and minimise the use of non-renewable resources.

A3.14 At the time of writing, the City Council was producing a Sustainability Strategy. This strategy sets targets to reduce carbon emissions across the city. Specific targets include the reduction of overall carbon dioxide emissions in the City by 40% by 2020 (compared to a 2005 baseline).

A3.15 There is now a wide acceptance that sustainability considerations need to be factored into the planning of new developments. In Oxford, an additional requirement for 20% on-site renewable/ low-carbon energy has been a feature of developments across the city since 2006. The need to generate renewable or low carbon energy in the context of Oxford’s limited land supply means that sites for district level energy solutions are very limited. All new developments should therefore contribute to Oxford’s ambition to be a low-carbon city.

A3.16 Statutory Building Regulations are not part of the planning system, but have an increasingly important impact on the sustainability of new buildings. ‘Part L’ of these regulations sets minimum standards for energy efficiency in new buildings, including homes. Proposed changes to the Building Regulations to improve energy efficiency in new buildings (Part L) are expected in October 2013 and October 2016. These changes are expected to reflect the Code for Sustainable Homes level 4, with respect to energy efficiency.

A3.17 Energy use in new development can be further reduced by appropriate siting, design, landscaping and energy efficiencies within the building. New developments, including conversions and refurbishments, will be expected to achieve high environmental standards. All development must include an element of renewable energy where possible.

A3.18 The Council will require an assessment of energy demand from all proposals for residential development and student accommodation. This assessment must demonstrate that energy efficiencies, including renewable or low carbon technologies, have been incorporated into the proposals.

A3.19 Developments of 10 or more homes are expected to achieve at least 20% of their energy consumption from renewable or low-carbon technologies, such as thermal heat pumps, solar panels, and combined heat and power. This requirement is in addition to meeting Building Regulations (or NRIA standards) in relation to energy efficiency. Up until October 2013, when new Building Regulations are due to be implemented, the City Council’s NRIA SPD will be the measurement of sustainability within qualifying developments in Oxford.

A3.20 The glossary provides a (non-exhaustive) list of acceptable renewable energy and low carbon technologies.

Policy HP11

Low Carbon Homes

Planning permission will only be granted for proposals for residential and student accommodation development if the development includes an element of on-site renewable or low carbon technologies where practicable.

All development proposals must submit an energy statement to show how energy efficiencies have been incorporated into the development.*

Planning permission will only be granted for qualifying developments where development proposals include at least 20% of their energy needs from on-site renewable or low carbon technologies, unless it can be robustly demonstrated that such provision is either not feasible or makes the development unviable. The energy statement must include details of how the 20% target will be achieved.

For the purposes of this policy, qualifying developments are:

- 10 or more dwellings, or*
- 20 or more student rooms, or*
- 500m² or more of student accommodation (gross internal area) even where there are less than 20 rooms.*

Until 31 September 2013, the Natural Resources Impact Analysis (NRIA) SPD checklist will be used to assess compliance with this policy. The NRIA would no longer apply to residential developments or student accommodation from 1st October 2013. From this date, Part L of the Building Regulations will require improved energy efficiency standards in all new residential development.*

The energy statement will replace the NRIA checklist as the means of assessing sustainability criteria after 1st October 2013.

*Details of the Energy Statement can be found in Appendix 6

**Should Part L of the Building Regulations not be updated in October 2013, then the NRIA will continue to apply to qualifying development proposals in Oxford until such time that the Building Regulations are updated to reflect improved standards of energy efficiency over and above the Part L of the Building Regulations 2010.

Appendix 2 - Example of good practice Part A

Energy Statement for all residential/ student developments (PART A)

Application reference (if known): 13/00000/FUL

Site Address: Any Street, Oxford,

Description of Proposed Development: small residential development (new build) 4-9 units

Please use the following prompts to describe the design of your proposal.

Site Design and Layout

How does the design take into account the potential for passive solar gain?

The orientation of the new building is within 30 degrees of south to ensure maximum benefits from natural daylight. The new build units are terraced as this provides a more efficient envelope and as the short side of the building faces east-west as minimising east-west walls and windows reduces excessive heat gain. The rooms have been planned so that cooler service spaces are located with a northerly aspect and habitable rooms take advantage of the southerly aspect.

How does the design include measures to prevent overheating in summer?

The positioning of the sun has been determined throughout the year, seasonal temperature ranges have been determined, as have any seasonal characteristics. Tree planting will be undertaken to optimise shading in summer and permitting sun to penetrate at lower angles in winter.

Renewable Energy

How will the design incorporate the use of low carbon energy or energy from renewable sources on-site?

A range of low carbon and renewable energy technologies have been considered including ground source heat pumps, solar water heating and solar PV as well as air source heat pumps. A table such as the one below is very useful in demonstrating how each micro-generation technology is performing.

Type	GSHP	Solar Water Heating	Solar PV	ASHP
Cost				
Energy generated				
% of total				

How is the renewable or low carbon technology employed in keeping with the character and context of the area?

Renewable technologies been chosen that integrate visually, and take account of any archaeological constraints. Discussions with colleagues in heritage and policy have ensured an appropriate way forward when choosing the type of technology solution.

Building Regulations

Have you considered how the scheme will meet the energy performance standards required by Building Regulations?

Lighting will be improved above and beyond current Building Regulations Part L. Low energy lighting will be fitted throughout the development. Windows and doors will be improved above and beyond current standards. Triple glazing will be fitted throughout.

Estimated CO2 emissions and CO2 emissions savings from meeting Part L of the Building Regulations

Lighting will be improved above and beyond current Building Regulations Part L that is likely to result in a total energy saving of 2.50% for the whole development. Windows and doors will be improved above and beyond current Building Regulations Part L that is likely to result in a total energy saving of 2.00% for the whole development.

Building for the Future

How will the scheme be designed to cope with future climate conditions?

Heat gains will be prevented through solar shading and insulation. The roof should be “useful”, in this instance a combination of green roof and solar panels (to the rear have been used). Permeable paving has been used as a sustainable drainage technique both at the front and rear of the property.

How will the scheme re-use materials with a reduced energy input?

Materials were chosen that were listed in the BRE Green Guide². Re-use of existing materials on-site will also be undertaken.

How will the development be adaptable in the future in terms of its use and the future incorporation of energy saving technologies?

Potential future connection to a district heating scheme has been facilitated by the inclusion of small piece of technology on the property.

² Building Research Establishment – www.bre.co.uk/greenguide

What further steps are being taken to move towards carbon neutrality?
All white goods now A Rated. Cavity wall and loft insulation also undertaken.

Example Energy Statement for qualifying developments (PART B)

The table below should be used by qualifying developments to demonstrate how energy efficiency measures and renewable or low carbon energy is factored into the development.

	Energy demand (kWh/yr)	Energy consumption savings (%)	CO ₂ emissions (kg/ yr) (optional)	CO ₂ emission savings (%) (optional)
Proposed baseline scheme				
Proposed scheme after renewable/ low carbon technology savings				

In addition to Part A, the following information should be supplied:

Applicants should produce an assessment of the energy demand from proposed major developments, which should demonstrate the expected energy savings from the renewable energy measures incorporated in the development.

Baseline calculations

Part L of the Building Regulations will be the baseline standard that all new buildings must meet. Planning policies are not in place to duplicate regulations.

The calculation of baseline energy demand, including energy consumed in the operation of the space heating/ cooling and hot water systems, ventilation, all internal lighting, cooking (regulated emissions) and electrical appliances (unregulated emissions);

Renewable Energy Technologies

Development should achieve a minimum reduction of 20% from on-site renewable/ low carbon energy generation (which can include decentralised renewable energy). Where the 20% target is has not been achieved, scheme specific justification is required. Energy statements should therefore set out the on-site renewable or low carbon energy measures specific to the scheme and demonstrate the extent to which they exceed building regulations.