

Guidance Note: Energy and Water Efficiency for Alterations and Extensions to Buildings

Supporting the Crawley Borough Local Plan
2015-2030

Including:
CC

Introduction

This document provides guidance about how you can achieve greater sustainability and energy efficiency when carrying out alterations or extensions to buildings in Crawley. By following this guidance you can reduce the cost of the energy used by your development while also helping to reduce Crawley's carbon dioxide (CO₂) emissions and protect the borough from the effects of climate change.

The council has prepared this document to support the planning process. It is aimed particularly at those seeking planning permission for the following kinds of projects, where these do not affect more than 100 square metres of internal floorspace:

- x The extension or refurbishment of a dwelling (e.g. a house or flat), or other works affecting the land belonging to a dwelling;
- x The extension or refurbishment of a non-residential building;
- x Changes of use which do not involve the creation of any dwellings.

Crawley's new Local Plan includes a requirement that those undertaking these kinds of projects consider how they can help to limit the extent of climate change and reduce its effects (see Local Plan Policy ENV6). The guidance provided here is intended to help you do this.

This guidance is not mandatory, but seeks to encourage environmentally sustainable measures which are relevant, feasible, and affordable. Investing in green improvements can also pay back in the long term through lower energy bills. You do not need to tell the council about your approach to environmental sustainability and energy efficiency when seeking planning permission for works of this nature. We would, however, request that you inform us of any relevant measures you intend to carry out as this will assist us in monitoring the implementation of the council's sustainability policies. A checklist which you can use to provide this information is included at the end of this document.

The document is divided into short sections dealing with particular objectives. Most of these are concerned with reducing energy and carbon emissions, and are set out according to the order of priority established in the following 'energy hierarchy':

- f Be clean: use less energy
- f Be lean: supply energy more efficiently
- f Be green: use energy from renewable or low carbon sources

The final section addresses the issue of consumer protection, which is a government priority in the arena of retrofitting and alteration of existing buildings for higher environmental performance.

Planning applications involving the creation of new dwellings, new non-residential buildings, or the creation, refurbishment or change of use of more than 100 square metres of internal floor space will

Energy Saving Trust Endorsed

EU Ecolabel (electronic equipment, heat pumps, water-based heaters)

- x Ensure that building and equipment users know how to use them in an energy-efficient way and understand the importance of sustainable practices. Instructions or user guides can help with this, as can fit-out guides in non-residential buildings.

Improving the sustainability of existing buildings when making improvements

Alterations and extensions to existing buildings should be viewed as an opportunity to remedy areas of poor energy efficiency in existing parts of the building.

New fabric elements such as walls, windows and doors will be required to meet

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are particularly likely to be possible in areas where there is a dense concentration of

Coping with future temperature extremes

In future decades, climate change is expected to bring more extreme temperatures, including more frequent and more intense heat waves. The potential negative impact on health and the economy can be reduced by limiting the risk of summer overheating within buildings and in the wider urban environment. This can be done in the following ways when undertaking alterations to buildings:

- x Limiting the penetration of heat into buildings through high standards of insulation and air-tightness, and the use of windows with low 'g-values', which are more resistant to the transfer of solar energy, and therefore limit solar heat gain;
- x Using landscape features (e.g. trees) or artificial means to shade surfaces which are exposed to the high summer sun;
- x Using more reflective materials for roofs and hardstanding;
- x Including features which can help cool the environment, such as trees, hedges, 'green' roofs and walls, and water bodies (including surface water drainage features).

Consumer protection

When incorporating energy efficiency measures as part of work on an existing building it is important that consumers can be confident that the installations carried out will deliver the advertised level of improvement, and that protections are in place in the event that this does not occur. This is especially important in relation to domestic premises, as the environmental performance of homes has a big impact on householders.

The Energy Ombudsman has a number of powers in relation to this area, and can consider unresolved complaints from domestic consumers and small businesses in relation to the following:

- x problems with energy bills;
- x problems resulting from an energy company's sales activity;
- x problems resulting from switching gas or electricity supplier;
- x physical problems relating to the supply of energy to a home or small business, such as power cuts and connections;
- x micro generation and feed-in tariffs (FITs); and
- x problems relating to the provision of services under the Green Deal.

Improving consumer confidence and protection in the energy efficiency and renewable energy sector is a government priority, and has led to the establishment of the Bonfield review, which is due to provide recommendations in the following areas:¹

- x Consumer advice and protection
- x Standards Framework
- x Monitoring and Enforcement

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Note: The guidance in this document is for information only. Crawley Borough Council

Environmental sustainability and energy efficiency measures checklist for alterations to buildings

Please complete as fully as possible and send to the council . You can

Improving the sustainability of existing buildings when making improvements:

Upgrades to existing heating, cooling, ventilation and lighting systems	<input type="checkbox"/>
Further comments:	
Upgrades to insulating quality of existing walls, roofs, windows etc	<input type="checkbox"/>
Further comments:	
Measures identified in Recommendation Report accompanying the building's Energy Performance Certificate (EPC)	<input type="checkbox"/>
Further comments:	

Minimising carbon emissions during the development phase development 1.04 95.64 554.28 Tm () Tj22he c

Use of renewable/low carbon energy sources

Solar PV installation	<input type="checkbox"/>
Further comments:	
Solar thermal installation	<input type="checkbox"/>
Further comments:	
Use of biomass fuel	<input type="checkbox"/>
Further comments:	
Combined Heat and Power (CHP)	<input type="checkbox"/>
Further comments:	
Air/ground/water source heat pumps	<input type="checkbox"/>
Further comments:	
Other technologies	<input type="checkbox"/>
Further comments:	