

# **APPLICATION FOR PLANNING PERMISSION FOR UP TO 250 DWELLINGS**

# **RENEWABLE ENERGY AND SUSTAINABLE CONSTRUCTION STATEMENT**

## **LAND AT OAKLEY FARM, CHELTENHAM**

### **ON BEHALF OF ROBERT HITCHINS LTD AND ITS SUCCESSORS IN TITLE TO THE LAND**

**TOWN & COUNTRY PLANNING ACT 1990 (AS AMENDED)  
PLANNING AND COMPULSORY PURCHASE ACT 2004**

**PREPARED BY: PEGASUS GROUP**

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**PLANNING** | **DESIGN** | **ENVIRONMENT** | **ECONOMICS**

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## **1. INTRODUCTION**

- 1.1 This Renewable Energy and Sustainable Construction Statement has been prepared by Pegasus Group on behalf of Robert Hitchins Ltd and its successors in title to the land. The Statement sets out the approach to energy management and methods used to calculate predicted annual energy demand and associated carbon dioxide emissions that will be applied to the proposed residential development on land at Oakley Farm, Cheltenham.

### **Site Description and Context**

- 1.2 The application site is situated to the north east of Cheltenham town centre on the lower slopes of the Cotswold Scarp at Oakley and is within the Cotswolds Area of Outstanding Natural Beauty.
- 1.3 The 15.15 ha site comprises predominately greenfield land consisting of six open fields that are bounded by hedgerows and mature trees. Buildings associated with Oakley Farm and a number of trees and hedgerows are located towards the northern boundary of the site.
- 1.4 To the south, west and north the site is bounded by existing residential development and to the east by the listed structures of Hewlett's Reservoir. The site is bounded to the south by Harp Hill Road (B4075) and to the west by Wessex Drive, both of which are established residential areas. The former GCHQ Oakley site is located to the north, this site has recently undergone residential redevelopment.

### **Proposed Development**

- 1.5 An outline planning application is submitted for residential development comprising:
- Up to 250 dwellings;
  - Associated infrastructure;
  - Landscaping;
  - Public Open Space; and
  - Vehicular and pedestrian accesses from the B4075 (Harp Hill).

- 1.6 Given this is an outline planning application, the precise mix and further detail on the proposal is subject to the future consideration. Future details will be provided in line with the national and local policy requirements.

## 2. PLANNING POLICY CONTEXT

2.1 The relevant adopted and emerging policy and strategy is set out within the following documents:

- National Planning Policy Framework (NPPF) February 2019;
- Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011-2031 adopted December 2017;
- Cheltenham Borough Local Plan (adopted 2006);
- Emerging Cheltenham Plan; and
- The Building Regulations, L1A Conservation of Fuel and power in new dwellings, 2010 edition incorporating 2010, 2011, and 2016 amendments.

### **National Planning Policy Framework (February 2019)**

2.2 The National Planning Policy Framework (NPPF) was published in February 2019 and sets out the Government's planning policies for England and how these are expected to be applied. The NPPF provides a comprehensive overview of national planning policy, combining all previous planning policy guidance and planning policy statements, covering a range of themes.

2.3 The NPPF identifies that the purpose of the planning system is to contribute to the achievement of the sustainable development which is defined in the NPPF as; *"meeting the needs of the present without compromising the ability of future generations to meet their own needs"*.

2.4 Paragraph 8 identifies the three objectives of sustainable development which are:

- ***"an economic objective*** – *to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*
- ***a social objective*** – *to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and*

- ***an environmental objective*** – *to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy".*

2.5 Section 14 of the NPPF provides an overview of the approach required in order to meet the challenge of climate change, flooding and coastal change. Paragraph 148 of NPPF states:

***"The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure."***

2.6 Paragraph 150 of the NPPF states that new development should be planned for in ways that:

***"avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards."***

2.7 Further guidance is provided in the NPPF on how Local Authorities should consider the above issues when determining planning applications. Paragraph 153 of the NPPF states that in determining planning applications, local planning authorities should expect new development to:

***"comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption."***

**Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011-2031  
adopted December 2017**

- 2.8 The Joint Core Strategy (JCS) is a high-level strategic plan for Gloucester, Cheltenham and Tewkesbury. It sets out the long-term vision for how the area will develop between 2011 and 2031.
- 2.9 The JCS sets a number of strategic key objectives to be implemented across the plan period. In the context of this Renewable Energy and Sustainable Construction Statement the most relevant policies include:
- **Strategic Objective 5 – Delivering excellent design in new development** - by ensuring *"that all new developments are valued by residents."*
  - **Strategic Objective 6 – Meeting the challenges of climate change** - aiming to *"make the fullest contribution possible to the mitigation of, and adaptation to, climate change and the transition to a low-carbon economy."*
  - **Strategic Objective 9 – Promoting healthy communities** - aims to *"promote development that contributes to a healthy population by... ensuring that environmental quality and air quality is protected."*

Policy SD3: Sustainable Design and Construction

- 2.10 Policy SD3: Sustainable Design and Construction sets out the following details in relation to sustainability:
- "1. Development proposals will demonstrate how they contribute to the aims of sustainability by increasing energy efficiency, minimising waste and avoiding the unnecessary pollution of air, harm to the water environment, and contamination of land or interference in other natural systems. In doing so, proposals (including changes to existing buildings) will be expected to achieve national standards***
- 2. All development will be expected to be adaptable to climate change in respect of the design, layout, siting, orientation and function of both buildings and associated external spaces. Proposals must demonstrate that development is designed to use water efficiently, will not adversely affect water quality, and will not hinder the ability of a water body to meet the requirements of the Water Framework Directive;***
- 3. All development will be expected to incorporate the principles of waste minimisation and re-use. Planning applications for major development must be accompanied***

***by a waste minimisation statement, which demonstrates how any waste arising during the demolition, construction and subsequent occupation of the development will be minimised and sustainably managed***

***4. To avoid unnecessary sterilisation of identified mineral resources, prior extraction should be undertaken where it is practical, taking into account environmental acceptability and economic viability relating both to extraction of the mineral(s) and subsequent implementation of the non-minerals development of the site***

***5. Major planning applications must be submitted with an Energy Statement that clearly indicates the methods used to calculate predicted annual energy demand and associated annual Carbon Dioxide (CO<sub>2</sub>) emissions.***

***This policy contributes towards achieving Objectives 5, 6 and 9.”***

- 2.11 This Policy confirms that all development proposals are required to demonstrate how they contribute to the aims of sustainability by increasing energy efficiency.
- 2.12 The Policy requires major planning applications to be submitted with an Energy Statement that clearly indicates the methods used to calculate predicted annual energy demand and associated annual Carbon Dioxide (CO<sub>2</sub>) emissions.
- 2.13 The supporting text (paragraph 4.3.4) to Policy SD3 refers to the building control framework as a means of requiring minimum standards for construction for all developments. The supporting text encourages applicants to meet higher standards where possible which may increase the sustainability of the proposal as a whole.
- 2.14 The supporting policy text also makes reference to energy efficiency, water efficiency and recycling of construction materials. In order to reduce the impact of climate change, mitigation is required such as flood mitigation, heat proofing, open space provision, shading, water retention for irrigation, landscaping and associated measures.
- 2.15 The JCS outlines a number of features that can help to contribute to energy efficiency and the reduction of CO<sub>2</sub> emissions.
- 2.16 However, before considering the use of renewable energy technologies, the JCS confirms that the design of the development should be considered first to identify measures to reduce overall energy demand.
- 2.17 The JCS sets out that consideration could be given to the following:



- Choice of building fabric and construction techniques;
- Optimising solar gain; and
- Natural lighting and ventilation to reduce the need for space and heating and/cooling and lighting.

2.18 Secondly, the design should include measures to use energy more efficiency such as: increasing levels of insulation in walls, floors and roofs and improved airtightness.

### **Cheltenham Borough Local Plan (adopted 2006)**

2.19 The adopted Cheltenham Borough Local Plan (2006) is currently under review. Following the adoption of the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS) a large number of policies from the saved Cheltenham Borough Local Plan (2006) have been superseded.

2.20 A series of objectives are set out in Table 1 of the Local Plan which includes achieving a high standard of design in new development (Objective O2) as well as reducing waste and energy consumption and conserving natural resources (Objective O17).

2.21 Policy CP 3 Sustainable Environment confirms that development will be permitted only where it would:

***"(a) not harm the setting of Cheltenham (note 1), including views into or out of areas of acknowledged importance (note 2); and (b) not harm landscape character (note 3); and (c) conserve or enhance the best (note 4) of the built and natural environments; and (d) safeguard and promote biodiversity (note 5); and (e) not give rise to harmful levels of pollution (note 6) to land, air or water (surface or ground); and (f) minimise the risk of flooding (note 7)."***

### **Emerging Cheltenham Plan**

2.22 The Cheltenham Borough Local Plan provides the detail of how and where the policies in the JCS will be implemented. Once adopted the Cheltenham Plan will become part of the statutory development plan for Cheltenham up to 2031.

2.23 A series of visions and objectives are set out within the Cheltenham Plan. Vision Theme C states: ***"Cheltenham is a place where the quality and sustainability***

***of our cultural assets and natural and built environment are valued and recognised locally, nationally and internationally and where tourists choose to visit and return."***

- 2.24 A number of objectives support each theme, the following objective supports the vision set out in theme C to ***"address the challenge of climate change, ensuring that development meets high design and sustainability standards and is built to be adaptable over the long term."***

**The Building Regulations, L1A Conservation of Fuel and power in new dwellings, 2010 edition incorporating 2010, 2011, and 2016 amendments**

- 2.25 The document is a nationwide guide on the building regulations in relation to the energy efficiency. The energy efficiency requirements relevant to this approved document, which deals with new dwellings, are those in Regulations 25A, 26, 26A and 40 and Part L of Schedule 1.
- 2.26 The Document sets out overarching criteria that enable to measure the energy efficiency requirements compliance to the Government's Standards.
- 2.27 Criterion 1 of the Building Regulations 2010 states that in accordance with regulation 26, the calculated rate of CO<sub>2</sub> emissions from the dwelling must not be greater than the Target CO<sub>2</sub> Emission Rate (TER). Additionally, and in accordance with regulation 26A, the calculated Dwelling Fabric Energy Efficiency (DFEE) rate must not be greater than the Target Fabric Energy Efficiency (TFEE) rate.
- 2.28 Criterion 2 of the document confirms that the performance of the individual fabric elements and the fixed building services of the building should achieve reasonable overall standards of energy efficiency. Criterion 2 is intended to limit design flexibility by limiting standards for the properties of the fabric elements of the building.
- 2.29 Criterion 3 states that the dwelling should have appropriate passive control measures to limit the effect of heat gains on indoor temperatures in summer, irrespective of whether the dwelling has mechanical cooling.
- 2.30 Criterion 4 confirms that building performance should be consistent with Dwelling CO<sub>2</sub> Emission Rate (DER) and Dwelling Fabric Energy Efficiency (DFEE) rate. Paragraph 3.2 of the document confirms that *"In accordance with Part L and*

*regulation 7, the building fabric should be constructed to a reasonable standard so that:*

- a) The insulation is reasonably continuous over the whole building envelope;  
and*
- b) The air permeability is within reasonable limits."*

### **3. METHODS USED TO CALCULATE PREDICTED ANNUAL ENERGY DEMAND AND ASSOCIATED ANNUAL CARBON DIOXIDE (CO<sub>2</sub>) EMISSIONS**

- 3.1 As stated above, the proposed development on land at Oakley Farm will need to be assessed using Part L (new dwellings) of the Building Regulations. The document sets out a number of criteria that need to be addressed prior to commencement of the development.
- 3.2 Criterion one of Building Regulations Part L requires that the building as designed is not anticipated to generate CO<sub>2</sub> emissions in excess of that set by a Target CO<sub>2</sub> Emission Rate (TER). Criterion two places upper limits on the efficiency of controlled fittings and services. Criterion three requires that dwellings are not at high risk of high internal temperatures in the summer months to limit the effects of heat gains in the summer. Criterion four requires the building performance to be consistent with Dwelling CO<sub>2</sub> Emission Rate (DER) and Dwelling Fabric Energy Efficiency (DFEE) rate.
- 3.3 In subsequent planning application stages for the development on land at Oakley Farm the predicted CO<sub>2</sub> emissions from the dwellings and energy efficiency/demand of the development will be calculated in accordance with the methodology set out in paragraphs 2.10 and 2.11 of the Building Regulations 2010 L1A 2013 edition document.
- 3.4 Given this is an outline planning application, the level of detail required to satisfy the above criteria is unknown at present. At this stage, the illustrative masterplan submitted demonstrates how the site can deliver the proposed scale of development whilst responding to the constraints and opportunities on site. Further consideration to the above criteria will be given in subsequent stages of the planning process and these will be successfully resolved by implementing appropriate materials and standards across the proposed development.

#### **4. CONCLUSIONS**

- 4.1 This Renewable Energy and Sustainable Construction Statement acknowledges the policy approach set out at a local and national level in applying energy efficiency and adaptation in the new buildings.
- 4.2 This Statement also indicates the methods used to calculate predicted energy demand and CO<sub>2</sub> emissions and provides a high-level strategy that demonstrates how the proposed measures are appropriate in the context of the development and how the proposed development will aim to reduce the energy consumption and emissions once developed.
- 4.3 Given this is an outline planning application, the precise mix of the proposed development is unknown, as at this stage the illustrative masterplan submitted demonstrates how the site can deliver the proposed scale of development whilst responding to the constraints and opportunities on site. Therefore, the detailed annual emissions impact of the proposed development cannot be fully estimated. This Statement confirms that the strategy adopted by the applicant will carefully follow the methodology for calculating the predicted annual energy demand and associated carbon emissions set out in Building Regulations 2010 L1A 2013 edition document.