

Energy Statement for

OUTLINE PLANNING APPLICATION FOR THE CONSTRUCTION OF UP TO 140,000 SQM OF EMPLOYMENT FLOORSPACE (USE CLASS B8 WITH ANCILLARY OFFICES AND FACILITIES) AND SERVICING AND INFRASTRUCTURE INCLUDING NEW SITE ACCESS, INTERNAL ROADS AND FOOTPATHS, LANDSCAPING INCLUDING EARTHWORKS TO CREATE DEVELOPMENT PLATFORMS AND BUNDS, DRAINAGE FEATURES AND OTHER ASSOCIATED WORKS INCLUDING DEMOLITION OF THE EXISTING FARMHOUSE. ALL MATTERS OF DETAIL RESERVED.

LAND EAST OF JUNCTION 11 M40, BANBURY.

On behalf of Greystoke CB

Date: 5 May 2022 | Pegasus Ref: P21-3302PL

PINS Ref: | LPA Ref:

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Document Management.

Version	Date	Author	Checked/ Approved by:	Reason for revision
V1	5/5/22	PS	DH	
V2	6/5/22	PS	Client	



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INTRODUCTION

- 1.1. This Energy Statement has been prepared by Pegasus Group on behalf of Greystoke CB (the "Applicant") in support of an outline planning application. This 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 commercial development.

PROPOSED DEVELOPMENT

- 2.1. An outline planning application (with all matters reserved) is submitted for development comprising of up to 140,000m² (1.5 million square feet) of B8 logistics warehousing with ancillary offices, access, internal roads and footpaths, public open space, landscaping, drainage and other associated works and infrastructure including demolition of the existing farmhouse on land east of junction 11 M40, Banbury.
- 2.2. Given this is an application for an outline planning permission, the precise number, size and form of buildings will be the subject of future consideration.
- 2.3. An Illustrative Site Layout Plan and a Parameter Plan accompanies the application to inform the decision maker about the likely scale and form of the proposed development.

PLANNING POLICY CONTEXT

- 3.1. The relevant national and local policy relating to energy is set out within the following documents;
 - National Planning Policy Framework (NPPF) July 2021;
 - Cherwell District Local Plan 2011-2031 Part 1 (CDLP) first adopted July 2015;
 - The Building Regulations, L2A, Conservation of fuel and power in new buildings other than dwellings.
 - Emerging Government Policy is set out in the Energy White Paper which was published on 18th December 2020.

National Planning Policy Framework (July 2021)

- 3.2. The updated version of the National Planning Policy Framework (NPPF) was published July 2021. The document sets out the Government's planning policies 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.
- 3.3. The document identifies the purpose of the planning system to contribute to the achievement of sustainable development, this is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs".
- 3.4. The three objectives of sustainable development are set out at paragraph 8 of the NPPF :

- **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 places, 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 protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

3.5. Section 14 of the NPPF 2021 provides an overview of the approach required in meeting the challenge of climate change, flooding and coastal change.

3.6. Paragraph 152 of the document states that:

“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.”

3.7. Subsequent paragraphs provide a more prescriptive approach to management and reduction of the negative effects on the above issues. Paragraph 154 states that new development should be planned for in ways that:

“a) 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

b) 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.”

3.8. The NPPF provides further guidance on how the local authorities can factor in the above issues when considering planning applications. Paragraph 157 states that in determining planning applications, local planning authorities should expect new development to:

“a) 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

b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.”

Cherwell District Local Plan 2011–2031 Part 1 (2015)

- 3.9. The Cherwell District Local Plan sets out the long-term vision and objectives for the area together with strategic and development policies for shaping new development and locations for new development up to 2031. It was adopted in July 2015.
- 3.10. It sets a vision for the District and a number of strategic key objectives to be implemented across the plan period 2011– 2031. In the context of the energy statement, the most relevant include:

"We will protect our natural resources, embracing environmental technologies and adapting our behaviour to meet the global challenge of climate change. We will promote the use of alternative energy sources where appropriate and reduce the impact of development on the natural environment, including seeking to minimise flood risk".

Strategic Objective 11: To incorporate the principles of sustainable development in mitigating and adapting to climate change impacts including increasing local resource efficiency (particularly water efficiency), minimising carbon emissions, promoting decentralised and renewable or low carbon energy where appropriate and ensuring that the risk of flooding is not increased.

Policy ESD 1: Mitigating and Adapting to Climate Change

- 3.11. The Cherwell Local Plan 2011–2031, Policy ESD 1 states:

Measures will be taken to mitigate the impact of development within the district on climate change. At a strategic level, this will include:

- Designing developments to reduce carbon emissions and use resources more efficiently, including water (see Policy ESD 3 Sustainable Construction)
- Promoting the use of decentralised and renewable low carbon energy where appropriate (see policy ESD 4 Decentralised Energy Systems and ESD 5 Renewable Energy)

The incorporation of suitable adaptation measures in new development to ensure that development is more resilient to climate change impacts will include consideration of the following:

- Taking into account the known physical and environmental constraints when identifying locations for development
- Demonstration of design approaches that are resilient to climate change impacts including the use of passive solar design for heating and cooling
- Minimising the risk of flooding and making use of sustainable drainage methods, and
- Reducing the effects of development on the microclimate (through the provision of green infrastructure including open space and water, planting, and green roofs).

Policy ESD 2: Energy Hierarchy and Allowable Solutions

3.12. The Cherwell Local Plan 2011-2031, Policy ESD 2 states:

In seeking to achieve carbon emissions reductions, we will promote an 'energy hierarchy' as follows:

- **Reducing energy use, in particular by the use of sustainable design and construction measures**
- **Supplying energy efficiently and giving priority to decentralised energy supply**
- **Making use of renewable energy Making use of allowable solutions.**

Policy ESD 3: Sustainable Construction

3.13. The Cherwell Local Plan 2011-2031, Policy ESD 3 states:

All new residential development will be expected to incorporate sustainable design and construction technology to achieve zero carbon development through a combination of fabric energy efficiency, carbon compliance and allowable solutions in line with Government policy.

Cherwell District is in an area of water stress and as such the Council will seek a higher level of water efficiency than required in the Building Regulations, with developments achieving a limit of 110 litres/person/day.

All new non-residential development will be expected to meet at least BREEAM 'Very Good' with immediate effect, subject to review over the plan period to ensure the target remains relevant. The demonstration of the achievement of this standard should be set out in the Energy Statement.

The strategic site allocations identified in this Local Plan are expected to provide contributions to carbon emissions reductions and to wider sustainability. Cherwell

All development proposals will be encouraged to reflect high quality design and high environmental standards, demonstrating sustainable construction methods including but not limited to:

- **Minimising both energy demands and energy loss**
- **Maximising passive solar lighting and natural ventilation**
- **Maximising resource efficiency Incorporating the use of recycled and energy efficient materials Incorporating the use of locally sourced building materials**
- **Reducing waste and pollution and making adequate provision for the recycling of waste**
- **Making use of sustainable drainage methods**
- **Reducing the impact on the external environment and maximising opportunities for cooling and shading (by the provision of open space and water, planting, and green roofs, for example); and**
- **Making use of the embodied energy within buildings wherever possible and re-using materials where proposals involve demolition or redevelopment**

Should the promoters of development consider that individual proposals would be unviable with the above requirements, 'open-book' financial analysis of proposed

developments will be expected so that an independent economic viability assessment can be undertaken. Where it is agreed that an economic viability assessment is required, the cost shall be met by the promoter.

- 3.14. Policy ESD 3 sets out the Council's approach to implementing the first step of the energy hierarchy in Policy ESD 2 specifically, its encouragement for the use of sustainable design and construction measures.

Policy ESD 4: Decentralised Energy Systems

- 3.15. The Cherwell Local Plan 2011-2031, Policy ESD 4 states:

The use of decentralised energy systems, providing either heating (District Heating (DH)) or heating and power (Combined Heat and Power (CHP)) will be encouraged in all new developments.

A feasibility assessment for DH/CHP, including consideration of biomass fuelled CHP, will be required for:

- All residential developments for 100 dwellings or more
- All residential developments in off-gas areas for 50 dwellings or more
- All applications for non-domestic developments above 1000m² floorspace.

The feasibility assessment should be informed by the renewable energy map at Appendix 5 'Maps' and the national mapping of heat demand densities undertaken by the Department for Energy and Climate Change (DECC) (see Appendix 3: Evidence Base).

Where feasibility assessments demonstrate that decentralised energy systems are deliverable and viable, such systems will be required as part of the development unless an alternative solution would deliver the same or increased benefit.

Policy ESD 5: Renewable Energy

- 3.16. The Cherwell Local Plan 2011-2031, Policy ESD 5 states:

A feasibility assessment of the potential for significant on site renewable energy provision (above any provision required to meet national building standards) will be required for:

- All residential developments for 100 dwellings or more
- All residential developments in off-gas areas for 50 dwellings or more
- All applications for non-domestic developments above 1 000m² floorspace.

Where feasibility assessments demonstrate that on site renewable energy provision is deliverable and viable, this will be required as part of the development unless an alternative solution would deliver the same or increased benefit. This may include consideration of 'allowable solutions' as Government Policy evolves.

The Building Regulations, L2A, Conservation of fuel and power in new buildings other than dwellings.

- 3.17. 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 buildings other than residential dwellings, are those in Regulations 25A, 26, and 40 and Part L of Schedule 1.
- 3.18. The Document sets out five overarching criteria that enable to measure the energy efficiency requirements compliance to the Government's Standards.
- 3.19. Criterion 1 of the Building Regulations 2010 states that, in accordance with regulation 26, the calculated rate of CO2 emissions from the dwelling must not be greater than the Target CO2 Emission Rate (TER).
- 3.20. Criterion 2 of the document sets out limits on design flexibility by limiting standards for the properties of the fabric elements of the building.
- 3.21. Criterion 3 states that buildings should have appropriate passive control measures to limit the effect of solar gains on indoor temperatures.
- 3.22. Criterion 4 states that the performance of the building as built should be consistent with the Building Emission Rate (BER).
- 3.23. Criterion 5 deals with the provision for energy efficient operation of the building and states that the building can be operated in such a manner as to use no more fuel and power than is reasonable in the circumstances.

Energy White Paper powering our Net Zero Future, published December 2020

- 3.24. The Energy White Paper published in December 2020¹ sets out the Government's vision to address the challenge of climate change and sets the aspiration to become the first major economy to reach the net zero target.
- 3.25. Chapter 4 of the White Paper sets out the government's vision for energy efficiency across new buildings. It states at page 106 that;

All rented non-domestic buildings will be EPC Band B by 2030, where cost-effective.

- 3.26. The Government aims to provide more focus on electrification. As a result, the document states on page 110 that the Government will:-

"...grow the installation of electric heat pumps from 30,000 per year to 600,000 per year by 2028, supporting up to 20,000 jobs by 2030.

¹ <https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future/energy-white-paper-powering-our-net-zero-future-accessible-html-version>

3.27. The Government also provides information on the new Heat Network Transformation Programme. It states on page 113 that it will use:

"...a new Heat Network Transformation Programme to co-ordinate our support for the roll out of district heating systems, including the switch to low or zero-carbon heat sources. We are committing £122 million of funding towards a new Heat Network Transformation Programme and will implement local authority zoning by 2025."

3.28. The above considerations set out in the Energy White Paper are not policy, however they provide an indication of the direction of travel for future requirements.

DEVELOPMENT PROPOSAL CONSIDERATIONS

Energy Efficiency

- 4.1. As stated above, the proposed development on land east of Jn 11, M40, Banbury will need to be assessed using Part L (new buildings other than residential) of the Building Regulations. The document sets out a number of criteria that need to be addressed prior to commencement of the development.
- 4.2. Criterion one of Building Regulations Part L requires that the building as designed is not anticipated to generate CO₂ emissions in excess of that set by a Target Emission Rate (TER). Criterion two places upper limits on the efficiency of controlled fittings and services. Criterion three requires that buildings are not at high risk of high internal temperatures in summer months.
- 4.3. The predicted annual energy demand and associated carbon emissions method used in subsequent planning application stages for Land East of Jn 11 M40 will be calculated in accordance with the methodology set out in paragraphs 2.13 and 2.17 of the Building Regulations 2010 L2A (2013 incorporating 2016 amendments), or any document which supersedes it. The proposed methodology will follow the principles set out in Criterion 1 in order to comply with regulation 26.
- 4.4. The proposed development is currently aiming to achieve as a minimum the BREEAM UK New Construction 2018 rating of 'Very Good'.
- 4.5. Given this is an outline planning application, the level of detail required to satisfy the above criteria is unknown at present. Further consideration will be given in subsequent stages of the planning process and these will be successfully resolved by implementing the use of appropriate materials and standards across the proposed development. Further details can be secured by condition.

De-centralised Energy Systems

- 4.6. By reference to Appendix 5 of the Local Plan there is no, or planned, local district heating available to service the proposed development. At this stage the likelihood is that the

warehouses will be unheated, whilst the ancillary office spaces would be more efficiently, and cost effectively heated by other sources such as air source pumps.

Renewable Energy

4.7. The following renewable energy sources are considered not to be feasible for the proposed development:

- Hydro – no suitable source
- Wave – no suitable source
- Wind Turbine – potential landscape issues
- Community District Heating – no suitable nearby scheme

4.8. The following renewable energy sources are considered feasible but would require an analysis of energy demand of future occupiers of the buildings to understand which is the most cost effective and would maximises potential benefits.

- Ground source heat pumps
- Air source heat pumps
- Roof-installed photovoltaic panels
- Ground-installed photovoltaic panels
- Biomass CHP

CONCLUSIONS

5.1. This Energy Statement is provided in accordance with the Policies of the Local Plan and acknowledges the national and local policy approach to the consideration of energy efficiency at the proposed development.

5.2. It also indicates the methods used to calculate predicted energy demand and CO2 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.

5.3. Given this is an outline planning application and the precise mix of the proposed development is unknown, the detailed annual emissions impact of the proposed development cannot be fully estimated. However, it is highlighted 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 L2A.

Town & Country Planning Act 1990 (as amended)
Planning and Compulsory Purchase Act 2004

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