Energy Statement for

Residential development providing up to 175 new homes; vehicular and non-vehicular access from B4079; pedestrian and cycle access onto Pamington Lane west of Tudor Cottage; foul and storm water drainage infrastructure; provision of green infrastructure including public open space; associated services infrastructure for utilities. All matters of detail reserved for subsequent approval (except the vehicular and non-vehicular access from the B4079 and the pedestrian/cycle access from Pamington Lane to the west of Tudor Cottage.

Land Adjacent to Pamington, near Ashchurch.

On behalf of Greystoke Land Ltd

Date: 28 November 2023 | Pegasus Ref: P23-2429PL

Document Management.

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Contents.

1. INTRODUCTION

1.1. This Energy Statement has been prepared by Pegasus Group on behalf of Greystoke Land Ltd (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.

2. PROPOSED DEVELOPMENT

2.1. The application seeks outline planning permission for:

> **"Residential development providing up to 175 new homes; vehicular and non-vehicular access from B4079; pedestrian and cycle access onto Pamington Lane west of Tudor Cottage; foul and storm water drainage infrastructure; provision of green infrastructure including public open space; associated services infrastructure for utilities. All matters of detail reserved for subsequent approval (except the vehicular and non-vehicular access from the B4079 and the pedestrian/cycle access from Pamington Lane to the west of Tudor Cottage)".**

2.2. Given this is an application for an outline planning permission, the precise size and type of dwellings will be the subject of future consideration.

2.3. Parameter plans and an illustrative masterplan accompanies the application.

3. 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) September 2023;
- The Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011 – 2031 adopted December 2017
- Ashchurch Rural Neighbourhood Development Plan, made 27 September 2022
- 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.

3.2. Tewkesbury Borough Council declared a climate emergency in 2019, when the council committed to addressing greenhouse gas emissions created by its own activities and to becoming a carbon neutral organisation by 2030.

National Planning Policy Framework (September 2023)

3.3. The updated version of the National Planning Policy Framework (NPPF) was published September 2023. 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.

3.4. 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".

3.5. 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.

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

3.7. 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."

3.8. 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."

3.9. 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."

The Joint Core Strategy 2011 – 2031

3.10. The Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 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 2035. It was adopted in December 2017.

3.11. It includes 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 is:

Strategic Objective 6:

"Make the fullest contribution possible to the mitigation of, and adaptation to, climate change and the transition to a low-carbon economy".

Policy SD3: Sustainable Design and Construction

3.12. Policy SD3 sets out the requirement for carbon reduction of new development:

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 (CO2) emissions.

3.13. The supporting text to the policy explains that whilst minimum standards for sustainable construction are delivered through the building control framework and required for all developments, applicants are encouraged to meet higher standards wherever possible, and doing so may increase the sustainability of the proposal as a whole.

Ashchurch Rural Neighbourhood Development Plan

3.14. Policy H2 concerns the design of housing in the countryside and Fiddington, Pamington and Walton Cardiff. Criteria B of the policy states:

All residential development should be carbon neutral.

The Building Regulations, L, Conservation of fuel and power in dwellings.

3.15. 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 dwellings, are those in Regulations 24, 25, 25B, 26, 26A, 26C, 27, 27A and 27C.

3.16. Section 1 deals with ways of calculating the target primary energy rate, target emission rate and target fabric energy efficiency rate. A new dwelling must be built to a minimum standard of total energy performance. This is evaluated by comparing calculations of the performance of the 'actual dwelling' against calculations of the performance of a theoretical dwelling called the 'notional dwelling'. This must be carried out both at the design stage and when work is complete. The target primary energy rate, target emission rate and target fabric energy efficiency rate for individual dwellings must be calculated using the Government's Standard Assessment Procedure.

3.17. Section 2 reflects means of calculating the dwelling primary energy rate, dwelling emission rate and dwelling fabric energy efficiency rate. It states that:

"The same approved calculation tool must be used to calculate the target primary energy rate, target emission rate and target fabric energy efficiency rate and the dwelling primary energy rate, dwelling emission rate and dwelling fabric energy efficiency rate." (Paragraph 2.1).

3.18. Section 3 provides consideration of high-efficiency alternative systems reflected by the Regulation 25A.

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

3.19. The Energy White Paper published in December 2020[1] 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.

3.20. Chapter 4 of the White Paper sets out the government's vision for energy efficiency across new buildings. It states at page 102 that;

> **"The Future Homes Standard will require new-build homes to be fitted with low carbon heating, and high levels of energy efficiency. Homes built to the Future Homes Standard will be zero carbon ready and have 75 to 80 per cent lower carbon emissions than those built to current standards. We will seek to implement the standard as soon as possible. As a stepping stone to the Future Homes Standard, we have consulted on an interim uplift in standards which would result in a 31 per cent reduction in carbon emissions from new homes compared to current standards.141 We will publish the government response to the consultation and set out a roadmap to the Future Homes Standard, as soon as possible".**

3.21. 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".**

3.22. 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."**

3.23. 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.

Net Zero Strategy: Build Back Greener October 2021

3.24. The Build Back Greener Paper sets out the Governments strategy to meet the net zero targets. In relation to buildings, it states that:

> **"By 2050, buildings will need to be almost completely decarbonised, by making use of a combination of technologies to minimise their carbon emissions and maximise their energy performance. The scale of this challenge is significant, but we will take an approach that goes with the grain of consumer behaviour and maximises consumer choice, to ensure a smooth and gradual transition for households and businesses. Much like the move to electric vehicles, the move to low carbon options such as**

[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

electric heat pumps will be a gradual transition from niche product to mainstream consumer option. To ensure that we all benefit from cleaner, warmer and comfier buildings, will need to improve the energy efficiency of our buildings and products, end the use of fossil fuel heating systems and switch to low carbon sources, and integrate the use of smart technologies that give more control to consumers".

4. DEVELOPMENT PROPOSAL CONSIDERATIONS

Energy Efficiency

5.1. As stated above, the proposed development for Land Adjacent to Pamington near Ashchurch will need to be assessed using Conservation of fuel and power in dwellings. The document sets out a number of criteria that need to be addressed prior to commencement of the development.

5.2. The predicted annual energy demand and associated carbon emissions method used in subsequent planning application stages for Land Adjacent to Pamington near Ashchurch will be calculated in accordance with the methodology set out in Section 1 of the Building Regulations 2010 L1 (2021 incorporating 2023 amendments), or any document which supersedes it. The proposed methodology will follow the principles set out in Sectio 1 in order to comply with regulations 24 to 27.

5.3. Given this is an outline planning application and matters of appearance, materials landscaping, layout and scale are not being approved at this stage the level of detail required to satisfy the above criteria is unknown at present.

5.4. 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. It is therefore proposed that a suitably worded planning condition is attached to the Outline permission that would require the standards to be applied and assessed when the Reserved Matters application(s) is submitted as below:-

> ***'Prior to the commencement of the development hereby approved, an Energy Statement, including SAP calculations in line with the recognised methodology set by Government, demonstrating how the development will achieve as minimum Building Regulations requirements and details of how this will be monitored shall be submitted to the local planning authority and approved in writing.***
>
> ***Reason: To ensure high standards of sustainable design and construction in accordance with Policy SD3 of the Joint Core Strategy.'***

De-centralised Energy Systems

5.5. There is currently no, or planned, local district heating available to service the proposed development. At this stage the likelihood is that the buildings would be more efficiently, and cost effectively heated by other sources such as air source pumps.

Renewable Energy

5.6. 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

5.7. The following renewable energy sources are considered feasible but would require need further analysis in respect of the size and type of residential units 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

Monitoring

5.8. Policy SD3 does not set out any formal requirements for how the continued monitoring of development proposals should be undertaken, nor does it prescribe a one-size-fits-all approach, leaving applicants the flexibility to decide to how this could take place. However, to be effective it is proposed monitoring details are set out within subsequent Energy Statement(s).

5.9. Suitable monitoring equipment and post construction testing will be implemented to verify the performance of the building, and report on the as-built SAP calculations.

6. CONCLUSIONS

6.1. This Energy Statement is provided in accordance with the Council's Validation Checklist and acknowledges the national and local policy approach to the consideration of energy efficiency at the proposed development.

6.2. 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.

6.3. 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.

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

Cirencester
33 Sheep Street, Cirencester,
Gloucestershire, GL7 1RQ
T 01285 641717
E Cirencester@pegasusgroup.co.uk
Offices throughout the UK

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