ENERGY STATEMENT

LAND AT SHEPHERD STREET,

BIDDULPH,

STOKE ON TRENT,

STAFFORDSHIRE.

ST8 6HZ

For Willow Property and Developments Ltd.

August 2026

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Summary

This Energy Statement has been prepared in support of the Planning application submission for 5 no. new town houses development on the site at Shepherd Street, Biddulph.

This Statement includes an energy demand assessment showing how selected energy efficiency, low carbon and renewable energy measures have been considered and those, which will be incorporated into the scheme.

The planning policy requirement requires a reduction of emissions of 40% compared with the 2013 Building Regulations for dwellings. This statement sets out how this will be achieved and implemented.

The fabric insulation standards and construction specification of the homes will exceed the minimum required by Building Regulations. It is expected that each of the new dwellings will require an air source heat pump / central heating system.

1 Introduction

This report describes the methodology used to assess the development and the initiatives proposed.
The new homes will be designed and constructed to reduce energy demand and carbon dioxide emissions.
The objective is to reduce the energy demand to an economic minimum by focusing on the parts of the dwellings which have the greatest impact on energy demand and are the most difficult and costly to change in the future, namely the building fabric.
Once cost-effective structures have been designed, low carbon and renewable technologies are being considered to provide economic and beneficial sources for heating and supplementing electricity means.

The following hierarchy has been followed:
Reduce the demand and consumption
Increase energy efficiency
Provide low carbon renewable energy sources

2 National Planning Policy

The latest Nation Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of planning of sustainable development. The NPPF has guidance for developments to ensure they plan for climate change.
The most relevant paragraphs of the NPPF in respect of climate change are;
Paragraph 152 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, minimize 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.'

Paragraph 158 states

'When determining planning applications for renewable and low carbon development, local planning authorities should; a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognize that even small-scale project provide a valuable contribution to cutting greenhouse gas emissions; and b) approve the application if it impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.'

3 Previous Planning History

There has been a recent planning application submitted on this site under Number SMD/2025/0481 submitted on the 19/11/2025 for 5no. 3 bedroomed terrace urban town houses. This application was refused on the 22/052026

This site has previously been granted Outline Planning Consent under Number SMD/2017/0335 dated 03/08/2018 for 5no. 3 bedroomed terrace urban town houses.

Although that planning consent has lapsed, the precedent for this type of development has been established for the site.

The site is within the developed area of Biddulph and is a short distance to the east of the town centre. It comprises a derelict single-storey building facing Shepherd Street to the west and which has a white painted wall. The original roof structure has already been removed at an earlier date. The original building was built as a school canteen in the 1950s, but has had various uses within the previous described use as light industrial and timber storage. There is currently a gate manufacturer and fabricator operating from the yard to the rear (east) accessed via a side driveway to the north. There is a fish and chip shop to the other side of this and terraced houses facing Shepherd Street. There are 1930s semi-detached houses opposite the site and to the south side of the site which face Shepherd Street. There is an access onto the forecourt off Shepherd Street which is currently separated from the site by a 2.0m high chain link wire fencing on the front boundary.

There were various approvals for light industrial/workshop and storage uses in the 1980s. In 2004 approval was given for the retention of B1 workshops.

4 Assessment Methodology

SAP calculations will be prepared for the representative houses. The specification proposed in this report will meet the minimum requirements of the current building regulation approved documents.

5 Build Standards Proposed

Ground Floor (u value 0.13W/m2K) – 75mm screed finish, Celotex XR4000 insulation (thermal conductivity 0.032W/m2K), 150mm reinforced concrete slab.

External Wall (u value 0.18W/m2K) 150mm cavity fully filled with Knauf Earthwool Dritherm 32 insulation, 100mm lightweight blockwork, 12.5mm plasterboard on dabs.

Roof (u value 0.11W/m2K) – tiles/slate on battens, breather membrane, 200mm rafters partially filled with 150mm Celotex GA4000 insulation, Celotex PL4040 insulated plasterboard to form sloping ceilings.

Windows and Glazed Doors (whole u value 1.2W/m2K) Windows are double glazed, low E Argon filled.

Rooflight (whole u value 1.2 W/m2K) Windows are double glazed low Argon filled.

High Performing Composite Half Glazed Entrance Door (u value 1.2W/m2K)

Heating Mistsubishi Electric Ecodan Air Source Heat Pump - COP2.6

Heating Controls Time and temperature zone control by suitable arrangement of plumbing, with room thermostat controls at ground and first floor levels.

Hot Water System 210 litre Hot Water Cylinder fed from main heating system, with a measured heat loss 2.09 KWh/24h
Ventilation Natural with trickle vents and extract fans to bathrooms, En-suites, Utility Rooms and kitchens

Lighting 100% of lighting will be low energy at 80lumen/W or more with 5W power

Thermal Bridging

Knauf Insulation 150mm Dritherm 32 Full-fill insulation - PSI Ψ Values, Concrete Block Association (CBA) PSI Ψ Values & Full Fill Cavity Walls with Aircrete Blocks (0.18W/m2k) PSI Ψ Values to be implemented in the design and construction of the dwellings. Checklists to be completed and signed towards the end of construction.

Thermal junctions complied with as follows: -

E2 Other lintels, hi-therm lintels

E3 CBA Cert 314

Window Sill E4 CBA

Cert 315 Jamb

(normal) E6 CBA Cert 303 Intermediate floor within a dwelling

E10 Eaves (insulated at ceiling level)

E12 CBA Cert 310 Gable (insulated at ceiling level) E13 CBA Cert 311 Gable (insulated at rafter level) E14 Flat roof

E16 Corner (normal)

E17 CBA Cert 317 Corner (inverted)

E18 CBA Cert 305 Party Wall between dwellings E20 Exposed floor (normal)

P1 Party wall – ground floor (Full Fill Cavity Walls with solid dense Blocks PSI Ψ Value)

P4 Party wall – roof insulation at ceiling level (Full Fill Cavity Walls with solid dense Blocks PSI Ψ Value) P5 Party wall – roof insulation at rafter level (Full Fill Cavity Walls with solid dense Blocks PSI Ψ Value)

R1 – Head of roof window

R2 – Sill of roof window

R3 – Jamb of roof window

R6 – Flat ceiling

R7 – Flat ceiling (inverted) R8 – Roof to wall (rafter)

R9 – Roof to wall (flat ceiling)

Air Permeability

Air test design air permeability for all dwellings – minimum 4m3/hm2

6 Low Carbon and Renewable Technologies (Be Clean and Be Green)

This section assesses the appropriateness of each renewable technology to comply with the planning requirements.

Photovoltaics (Solar Panels)

Photovoltaics could be accommodated on the roofs of the dwellings and remains an option to achieve the standards.

Air Source Heat Pumps

Air source heat pumps are being considered for the installation requirements on each of the houses.

Ventilation

Generally, the building will be naturally ventilated via openable windows, doors and rooflights except toilets, served by mechanical extract fans.

Lighting

New LED Lighting to be installed throughout the dwellings.

7 Summary

This Energy Statement has demonstrated the strategies required for the houses to meet the requirements of building regulations to meet the standards.
Policy DES10 also requires the Energy Statement to include details as to how the policy will be complied with and monitored. On completion of the development, As Built SAPs will be provided to the building control service demonstrating that the standards have been complied with.