Batcheller Monkhouse

ENERGY STATEMENT

"Erection of a 2 bedroom dwelling, together with associated landscaping and parking."

September 2021

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1 INTRODUCTION

1.1 This Energy Statement has been prepared in support of an application for full planning permission for the following development:

"Erection of a 2 bedroom dwelling, together with associated landscaping and parking."

1.2 This Energy Statement sets out the energy efficiency and water saving measures to be incorporated into the proposed development, in reflection of the energy hierarchy: be lean (use less energy); be clean (supply energy efficiently); and be green (use renewable energy).

2 POLICY AND BACKGROUND

Adur Local Plan (2017)

2.1 The following policies in the Adur Local Plan reflect the objective to deliver sustainable and energy efficient development within the District.

2.2 **Policy 1 –** Presumption in Favour of Sustainable Development – states that when considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework.

2.3 **Policy 18 –** Sustainable Design **–** states that all new dwellings must achieve a water efficiency standard of no more than 110 litres per person per day (lpd).

2.4 **Policy 19** – Decentralised Energy and Standalone Energy Schemes – states that an assessment of the opportunities to use low carbon energy, renewable energy and residual heat/ cooling for both domestic and non-domestic developments must be provided with any major planning application. All new major development should incorporate renewable/low carbon energy production equipment to provide at least 10% of predicted energy requirements.

2.5 Whilst not a Major development, there is an urgent need to take action to tackle climate change and Adur District Council encourages these targets for non-major development in light of the identified Climate Emergency.

Adur Sustainable Energy Supplementary Planning Document (SPD)(2019)

2.6 The Adur Sustainable Energy SPD was prepared to guide new major developments in the preparation of energy strategies to meet energy demands. Whilst this document is applied primarily to large scale development, it also encourages minor development to demonstrate how they will deliver clean, smart, sustainable development in reflection of the objectives of the SPD.

Adur and Worthing Carbon Neutral Plan (2019)

2.7 The Carbon Neutral Plan states that in addition to mitigating their own emissions, the council should take a positive approach to renewable energy generation in planning policies and decision-making.

Adur District Council Interim Sustainability Checklist (2021)

2.8 In July 2021, the Adur District Council Planning Committee elected to publish an interim Sustainability Checklist in reflection of the Government's proposed Future Home Standard and the Adur and Worthing Carbon Neutral Plan (2019).

2.9 The Sustainability Checklist encourages development proposals to go beyond the current policy requirements and the following elements are encouraged to be implemented as far as possible.

- All development should follow the energy hierarchy to contribute to achieving zero carbon emissions, which in order of importance seeks to 1) minimise energy demand, 2) maximise energy efficiency, 3) utilise renewable energy, 4) utilise low carbon energy, 5) and only then use other energy sources.

- All new build housing will achieve a minimum 31% CO2 reduction, compared to the Building Regulations Part L 2013 standard, through carbon saving technology and fabric improvements in line with the energy hierarchy.

- All new housing (including conversions and where retrofitting existing buildings) should achieve a 'C' rating Energy Performance Certificate.

- New build residential developments are encouraged to use the Home Quality Mark and Passivhaus design standards.

- All development should follow the waste hierarchy to minimise, reuse, and recycle waste during the construction phase and incorporate facilities that enable and encourage high rates of recycling and re-use of waste and materials.

- Where possible new housing should incorporate measures to further limit water use to 100 litres/person/day.

- All development should incorporate design measures to maximise opportunities for natural ventilation and summer cooling to avoid contributing to the urban heat island effect and reduce vulnerability to overheating.

3 PROPOSED ENERGY STRATEGY

Part L Requirements under Building Regulations

3.1 The Building Regulations 2010 Part L1A relates to the conservation of fuel and power in new dwellings.

3.2 Schedule 1 states that reasonable provision should be made for the conservation of fuel and power in buildings by:

(a) Limiting heat gains and losses through thermal elements and other parts of the building fabric; and from pipes, ducts and vessels used for space heating, space cooling and hot water services.

(b) Providing fixed building services which are energy efficient; have effective controls; and are commissioned by testing and adjusting as necessary to ensure they use no more fuel and power than is reasonable in the circumstances.

3.3 The following measures would be incorporated into the detailed design:

- The proposed dwelling will be connected to solar panels to be installed on the south facing roof of Casa Blanca, which falls under the ownership of the applicants. The electricity generated from the photovoltaics will be used to power outlets, equipment, and lighting within both dwellings. Any surplus power will be exported back into the national grid. The percentage of power used and exported will be dependent on the final photovoltaic design.

- All glazed areas to have elements of shading provided by the building form or internal curtains or blinds.

- Solar gains will be controlled through Low E glazing.

- All external elements will be well insulated.

- 100% low energy/LED lighting.

- A+++ rated white goods.

3.4 Using these measures, the proposed development will achieve a minimum of 10% of energy needs from onsite renewable energy generation and achieve a minimum 31% CO2 reduction.

Limiting Water Use to 100 Litres Per Day

3.5 In 2015 the UK Government updated Buildings Regulations Part G to introduce an optional requirement of 110 litres per day for new residential development which should be reflected in local planning policies where there is clear evidence of need. This requirement is reflected in Policy 18 of the Local Plan and is further reduced to 100 litres per person per day in the Interim Sustainability Checklist

3.6 A fittings approach would be used via the use of The Water Calculator. This approach allows developers to input information on selected water related products to ascertain whether the specifications would collectively ensure that water consumption remains under 100 litres per day. The water consumption of the fittings would not exceed the figures provided in Figure 3.1.

Figure 3.1 – Maximum Fittings Consumption (Part G, Page 16)

Water fitting	Maximum consumption
WC	6/4 litres dual flush or 4.5 litres single flush
Shower	10 l/min
Bath	185 litres
Basin taps	6 l/min
Sink taps	8 l/min
Dishwasher	1.25 l/place setting
Washing machine	8.17 l/kilogram

3.7 Water consumption could also be managed through the following measures:

- Low flow toilets and taps
- Touch free taps to keep water running only when in use.
- Aerating tap heads
- Reduced toilet cistern sizes
- Restricted tap and shower outlets

- Rainwater harvesting system

Electric Vehicle Parking

3.8 An electric vehicle charging space will be provided as part of the proposed development.