

Carbon and Energy Statement

Revision:

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Project Address:

**New Build Dwelling on Land Adjacent:
32 Manchester Rd, Ramsbottom, Bury, BL0 0DH**

Project Reference:

2425/014

Date:

18/03/2025

Assessor:

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CARBON AND ENERGY STATEMENT

This statement has been prepared by Robmar Energy Solutions on behalf of the applicant in support of the following planning application:

Planning App: 71320

Proposal: New Build Dwelling

Address: Land adjacent to 32 Manchester Road, Ramsbottom, Bury, BL0 0DH

In particular this statement addresses Policy JP-S2: Carbon and Energy Requirements, of Bury Council's 'The Places for Everyone Joint Development Plan Document'.

"Provide an energy statement to set out how the proposal complies with Policy JP-S2. The statement should set out how you intend to minimise energy demand and maximise energy efficiency unless it can be demonstrated that it is not practicable or financially viable. Development should comply with the 2022 Part L Building regulations."

Development Description

The proposed development consists of 1 no. four bedroom new build dwelling on land adjacent to 32 Manchester Road, Ramsbottom, Bury, BL0 0DH.

The completed dwelling will be highly energy efficient with net zero carbon dioxide emissions from regulated energy uses. This will be achieved by installing high levels of insulation and the use of renewable technologies.

Proposed Energy Strategy

Projected regulated CO2 emissions : Net zero

Reductions in CO2 emissions compared to building regulations : 100%

It is proposed that the dwelling will incorporate enhanced construction and enhanced efficiency heating systems to reduce CO2 emissions.

The dwelling will adopt a 'fabric first' approach to energy efficiency following the principle that the demand for heating should first be minimised before addressing how the energy is produced. The building fabric will be highly insulated and have an airtight building envelope. This will mean that energy efficiency will be embedded within the building throughout its lifetime.

The construction specifications will be finalised during the detailed design stage, however, the following u-values and air tightness rates are being proposed which significantly improve upon those required for Building Regulations Part L1A compliance, and therefore will provide high levels of energy efficiency.

Thermal Transmittance (U-Values): Wall: 0.13 W/m²K

Roof: 0.12 W/m²K

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Floor: 0.09 W/m²K

Double Glazing: 1.20 W/m²K

Triple Glazing (to front elevation): 1.00W/m²K

Glazed Doors: 1.20 W/m²K

Design air tightness: 4.50 m³/hr.m²

These are significantly better than current building regulations standards.

The heating and hot water will be provided by a ground source heat pump system. These use renewable energy by absorbing heat from the outside environment and using it to heat the internal spaces. They have high efficiencies and still work effectively at very low outside temperature. The heating will be fully zoned so that the timing and temperature settings can be varied to suit the use of each room or area.

A large photovoltaic panel system will be installed with a capacity in the region of 9.0 kilowatts. This system will be specified by a specialist designer and will generate electricity equivalent to that being used by the regulated energy uses which are the heating, hot water, lighting and ventilation.

Energy Assessment Methodology

CO2 calculations have been carried out using Elmhurst Energy Systems SAP 10 programme which is in compliance with Approved Document L Volume 1 Dwellings 2021.

The SAP method assesses the energy demand of particular dwelling design. It then calculates the resulting CO2 emissions based upon the proposed building services technologies. It calculates a target emissions rate of CO2 for the dwelling which is referred to as the TER and a predicted as designed dwelling emission rate CO2 which is referred to as the DER. To comply with basic building regulations the DER must be no greater than the TER.

A summary of the SAP assessment is given in the table below:

Dwelling	DER	TER	DER/TER reduction	EPC rating
Proposed Dwelling at: Land Adjacent 32 Manchester Road	-0.09	8.51	101.06 %	101 A

A dwelling emission rate of zero or less means that the amount of energy generated by renewable sources, in this case photovoltaic panels, is at least equivalent to the energy used by the heating, hot water, lighting and ventilation systems.

The proposed energy strategy of this development will significantly reduce the designed dwelling CO2 emissions and will allow the dwelling to achieve net zero.

A copy of the predicted energy assessment is included in this report.

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Further Information

This report has been prepared by Matthew Jones of Robmar Energy Solutions, On Construction Domestic Energy Assessor accreditation number EES/032701. It is based upon proposed drawings and other information provided by the architect and client.

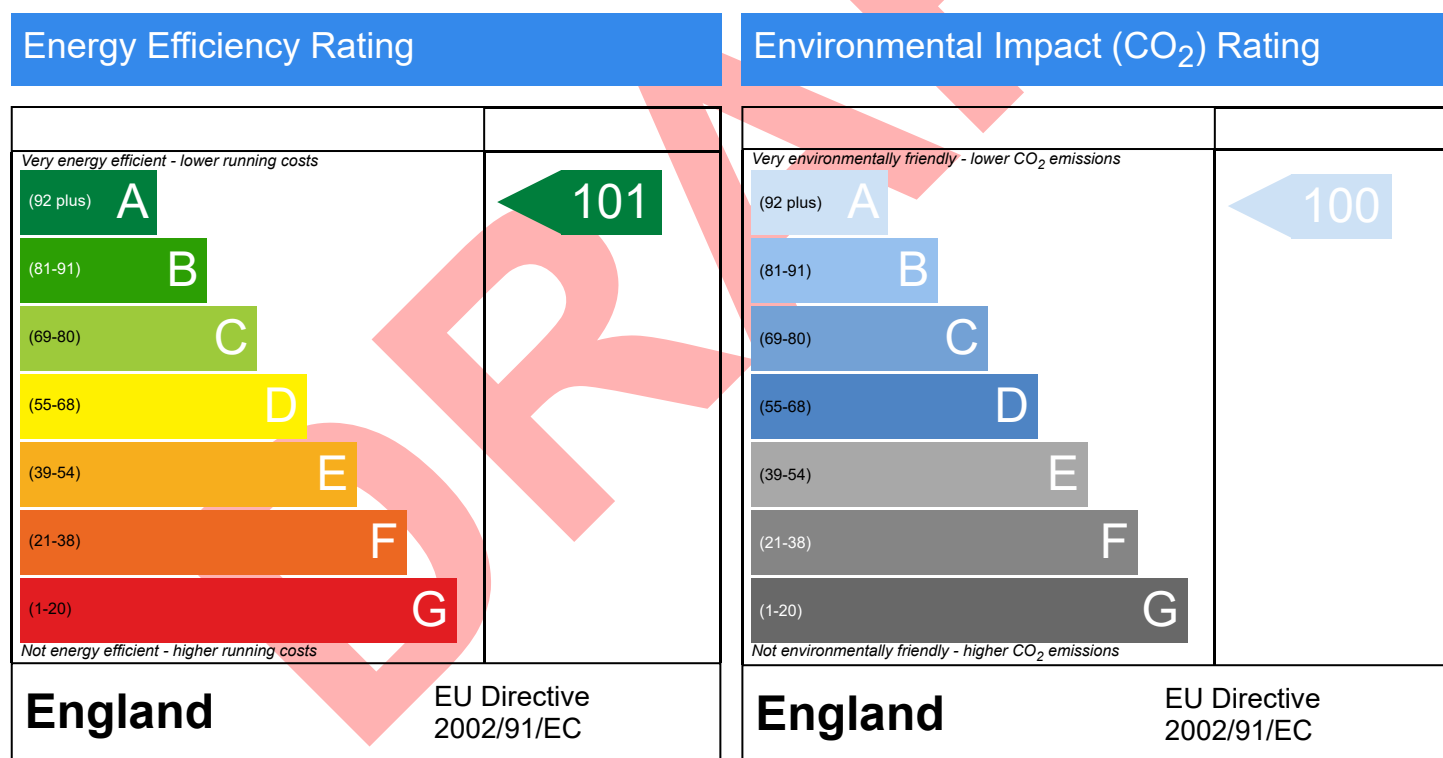
Predicted Energy Assessment



Dwelling type: House, Detached
Date of assessment: 31/03/2025
Produced by: Matthew Jones
Total floor area: 328.86 m²
DRRN:

This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

The energy performance has been assessed using the Government approved SAP 10 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating the less impact it has on the environment.