**Renewable & Low Carbon Energy Statement**

**Proposed Dwelling, 49 Moss House Road, Blackpool. FY4 5JF**

**Planning Ref: 24/0034**

The proposal for a new build dwelling to the plot of land formerly part of land connected to 49 Moss House Road, Blackpool but with new access from Docky Pool Lane, comprises a single storey bungalow type house with detached garage of 98m² new build GIA footprint in total and as such the below statement has been provided to demonstrate that 30% of operational energy required could be generated through renewable technologies/sources.

- A structure of this size could benefit from being constructed through SIP panels instead of traditional masonry. The use of SIPS would improve the overall thermal efficiency of the new dwelling whilst preventing the need for excess concrete/concrete blocks which generate excessive $CO^2$ gasses during the manufacturing process. This method of construction will be considered. Alternatively, a traditional build construction using materials consisting of brick cavity wall will also be considered as will the manufacture of these materials which must demonstrate that they have been manufactured via a reduced energy process which must carry a low energy rating manufacture process.

- In terms of thermal efficiency, the new design proposal will aim to exceed the regulations required in Approved Document L1A.

- A SAP assessment/calculation will be commissioned at detailed design stage to confirm the overall CO2 emission figure. This calculation will take into account the other renewable technologies listed below and provide an accurate target figure.

SAP calculations will also consider the proposed dwellings orientation, window positions and sizes etc in order to ensure the best low energy outcome.

- An energy efficient wood burning stove can be installed to burn solid fuels which have a very low sulphur content and only emit small amounts of smoke would provide the new dwelling with a heating source.

- Other heating sources or renewable technologies to consider are: o

Ground Source Heat Pumps

Air source heat pumps

Biomass Boilers

Solar PV Panels

Combined Heat & Power Systems

- An air test will be carried out to meet building regulation compliance for new build dwellings. This will ensure that any gaps during construction are correctly identified and sealed thus preventing heat generated from escaping to outside air.

- Other optional renewable technologies to service the property will be considered such as:

Sustainable Drainage System linking to a Soakaway/Rainwater Harvesting System,

The installation of a Mechanical Ventilation with Heat Recovery system, o Sewage Treatment Plant for foul drainage,

o High energy efficient rated Sedbuk Boilers, In terms of the overall energy performance of the new dwelling, every effort will be made to ensure materials and speciality equipment/technology is locally sourced. It is proposed that the new dwelling exceeds the thermal performance guides set out in Part L1A of the building regulations. It is proposed to explore the renewable technologies listed above and implement those which meet all current legislation for the reduction in energy. All will be confirmed at detailed design stage with results of the SAP calculation being issued to the Local Authority if required.