N /113143/ 7Y Energy

Design and Access Statement for D C & C A Curtis

Ref: DC_HR53LA_004

Introduction

This statement is submitted to support the planning application for the erection of a general purpose agricultural building, the installation of solar photovoltaic (solar PV) panels to the southern roof aspect and to explain the design and access considerations for the application.

Background

D C & C A Curtis operates a mixed farming business at Moor Court, Lyonshall, Herefordshire.

The farm business requires a new agricultural building for general storage, machinery and workshop space.

The proposed solar PV array will generate electricity primarily for on site use and we believe falls in closely in line with local authority sustainability and environmental policies, and the national Planning Policy Statement 22 on Renewable Energy.

The PV array will be installed on the southern roof aspect of the proposed agricultural building. The farm is likely to be able to utilise the majority of the electricity being produced by the solar array. Any excess electricity will not be wasted and will be exported to the National Grid.

Site

The site is located at Moor Court, Lyonshall, Kington, Herefordshire, HR5 3LA. The exact location is marked on the site plans enclosed with the application.

Proposed Agricultural Building

Design

The proposed agricultural building has been designed to fit within the confines of the farm yard and for the purposes of agriculture. It is designed to BS5502 standard for the design of farm buildings with reference to storage capacity and machine size. It is a steel frame portal building with a large open front for easy access and loading.

Use

The proposed building is required for a general storage including machinery and workshop space. It will not be used to house livestock, slurry or sewage sludge.

Size

The proposed building has been designed with a floor plan of 30.5m x 8.5m giving a total floor area of 259.25m^2. The building will be 6.8m high.

Proposed Solar PV Array

Design

The chosen site for the installation is a result of careful analysis of the buildings on site to identify the most productive location for solar electricity generation. The current buildings on site are not suitable for the mounting of solar panels due to their roof construction, age and shading from mature trees. The positioning of the proposed building reduces the impact of this shading whilst keeping to the confines of the farm yard.

The proposed building chosen has a South aspect, the most suitable on site for high performance and efficiency of the solar PV panels. The roof construction and pitch of the building have been designed to be suitable for the efficient mounting of solar panels.

The panels are low in profile to the roof and will not be raised more than 150mm from the roof sheets.

The south aspect of the building faces into the existing farm yard and is not visible from any public rights of way.

Use

The solar PV arrays will be mounted on the roofs of the proposed agricultural building. The roof would not be used for any other purpose.

Amount

The solar PV array consists of 72 panels each of approximate dimensions 1.6m x 0.9m.

Layout

The panels will be laid out in one block consisting of 4 rows of 18 panels in a row.

Environmental Sustainability

The proposed PV system will generate renewable electricity which will be used by the farm and other activities on site. The solar panels are expected to generate 14,532kWh of renewable electricity per year and save 7.9 tonnes of CO_2 each year.

The installation of the panels will lower the carbon footprint of the farming operations on site and provide green electricity to the business.

Access

The proposed development is situated on private land and public access will not be a requirement.

Access to the development will be via existing access ways to the site.