

Planning and Sustainability Statement

Address: Cartersfield Lane Farm, Cartersfield Lane, Stonnal, WS9 9EQ

Proposal: Deatched 6.5 metre x 9.5 metre storage structure

Date: 3 August 2020

1. Executive Summary

This statement has been prepared to submit an application for a new storage building on the site of an existing farm. The walls will be cavity insulated in the same manner as a domestic building, but the roof will be comprised of aluminium panels. Electricity and lighting (luminaires) will be provided, but no heating system is to be installed.

In calculating the summaries below, the Applicant has had regard to the following document:

Calculating the energy performance of buildings - Notice of approval of the methodology for expressing the energy performance of buildings in England and Wales (2018)

Summary table

	Energy demand (kWh/yr)	Energy consumption savings (%)	CO₂ emissions (kg/yr)	CO₂ emission savings (%)
Building Regulations Part L 2013 compliant development (Baseline)	1,020		387	
Proposed scheme after energy efficiency measures *	250		77.4	
Proposed scheme after CHP savings *				
Proposed scheme after other low and zero carbon technologies *				
Total savings (against baseline)	770		309.6.	

* if applicable

2. Calculate baseline energy demand

Energy Demand	Baseline*	
	Energy Demand (kWh/yr)	CO₂ Emissions Kg/CO₂/yr
Heating		
Hot water		
Lighting	1020	387
Auxiliary		
Cooling (if applicable)		
Cooking and Appliances (if applicable)		
Other?		
Total heat and hot water		
Total electricity		
Total		

*The baseline needs to comply with the Building Regulation Part L 2013. Any assumptions need to be mentioned.

3. Energy efficiency measures

Full assessment of possible energy efficiency measures (over and above the minimum requirements of the current Building Regulations) including predicted energy savings in kWh/m²/ annum and carbon reduction against baseline scheme.

Energy efficiency measure	Baseline		Proposed Scheme with energy efficiency measures*	
	Energy Demand (kWh/yr)	CO ₂ Emissions Kg/CO ₂ /yr	Energy Demand (kWh/yr)	CO ₂ Emissions Kg/CO ₂ /yr
Energy Efficient Lightbulbs	1020	387	250	77.4
Total	1020	387	250	77.4

4. Low and Zero Carbon Energy Generation Feasibility

The applicant has considered the potential for Combined Heat and Power, Solar Photovoltaics, Solar Thermal, Air Source Heat Pump, Ground Source Heat Pump, Biomass, Wind and Geothermal. None of these measures of practical or financial feasibility given the small size and proposed use of the storage structure.

The Applicant has also considered the potential for grants to deliver sustainability improvements, but believes that no grants are available for accessory storage structures such as that proposed.

5. Details of selected technology

The selected technology will be 2 luminaires using standard 18 W energy efficient bulbs. No further technologies are anticipated.