

## **ENERGY EFFICIENCY**

DEVELOPMENT: IPPC NEW PERMIT- REARING UNIT

LOCATION: Bryn y Plentyn Farm, Middleton

Oswestry Shropshire SY11 4LP

CLIENT: DA and LJ Woollam

Roger Parry & Partners LLP

Mercian House, 9 Darwin Court, Oxon Business Park, Shrewsbury, SY3 5AL

Tel: 01691655334

Email: richard@rogerparry.net

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The correct environment for the birds is maintained in the sheds through a combination of ventilation fans and inlets located on the sides of the poultry house.

| Energy usage at Bryn y Plentyn Farm | Use   |
|-------------------------------------|---|
| Energy source                       |   |
| Electricity                         | Lighting, ventilation, computer control systems, feed augers, water pumps |
| Diesel                              | Standby generator.  |

The shed will be monitored by a computer system, which automatically controls and records the humidity and the temperature.

Control sensors will be checked regularly and kept clean so they are able to detect the temperature at the stock level.

Ventilation rates will be computer controlled to minimise, as far as the indoor requirements allow heat losses from the sheds.

Fans will be fitted with back draft shutters to reduce heat loss.

The sheds will be maintained in good condition, cracks and open seams will be repaired.

The sheds will be fully insulated with a U-Value of approximately 0.4 W/m2/°C to reduce condensation and heat lost.

The sheds will be constructed to ensure litter is dry and friable.

The concrete flooring will be maintained, and cracks will be repaired.

The shed will have a damp proof course.

Nipple drinking system reduces spillage of water.

## **Electricity**

The ventilation fans in the sheds have been selected so that they are appropriate power and size for the sheds.

The computer control systems control the ventilation for maximum efficiency i.e. one fan operating at full capacity rather than two operating at half their capacity.

The fans are low energy per m3 of air.

The fans are regularly maintained, and cleared of debris.

Low energy light bulbs will be used in the control/vestibule areas, the office and stores.

Fluorescent lights will be used in the sheds.

We operate a variable lighting period during the crop cycle.

## **Fuel Oil**

The standby generator is regularly maintained in accordance with the manufacturers' instructions to ensure it operates efficiently.

A breakdown of delivered and primary energy consumption will be recorded and provided to Natural England annually in the following format

| Energy Source Delivered | Energy Consumption Units | % of Total |
|-------------------------|--------------------------|------------|
| Electricity             | Kwh                      | _          |
| Gas Oil                 | Litres                   |            |
|                         |                          |            |
|                         |                          |            |
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|                         |                          |            |