

OLD RUSH POULTRY FARM
ENERGY SOURCES & EFFICIENCY PLAN

Energy Sources

The following energy sources are used to undertake the permitted activities: -

Energy Source	Energy Use (Examples)
Electricity	<input type="checkbox"/> Lighting in sheds, office, rest area and yard. <input type="checkbox"/> Ventilation systems and alarms <input type="checkbox"/> Feed supply systems <input type="checkbox"/> Water pumps <input type="checkbox"/> Domestic water heating in rest area. <input type="checkbox"/> Heaters in rest area
Diesel Oil	<input type="checkbox"/> Fuel for the stand-by generator, available for generating electricity in the event of a mains electricity supply failure.
Heating	<input type="checkbox"/> LPG tank <input type="checkbox"/> Heat Exchanger(s)

Energy Efficiency Review

Heating

(Broiler Growing)

Broiler growing requires heating systems to operate. Birds are placed at day old and remain on site until approx. 5-8 weeks of age each cycle. Fuels for heating such as LPG are therefore required.

Construction and management of shed environment ensures as close to the optimum environment as possible and minimises any unwanted heat loss and material use wastage. Installation of heat exchanger units for reduction in overall LPG usage and associated gas releases (Co2).

Electricity

Electricity is mains supply.

All ventilation fans have been selected so that they are appropriate power and size for the sheds. The buildings management computer control system controls the continuous ventilation system for maximum efficiency.

The fans are 3 phase low energy per m3 of air.

The fans are regularly maintained and cleared of debris.

Conveyor drives, fan motors and air inlet motors are replaced as and when necessary, with new and more efficient units if they are available and meet BAT criteria.

LED lights are used in the poultry houses, control/vestibule areas, office and stores.

Variable lighting periods operate in the houses during the crop cycle.

Diesel Oil

Diesel oil is stored on site for use in the emergency "stand-by" generator if there is a failure in mains electricity supply to the site. Electricity from the generator would be sufficient to power the systems and controls that provide food, water, heat and light to the poultry houses and therefore maintain a healthy and welfare friendly environment for the birds.

The standby generator is regularly maintained and apart from regular weekly testing is for emergency use only.

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Potential for future improvements in energy use

Annyalla Chicks (UK) Broilers Limited is looking into the overall benefits of heat recovery unit via heat exchangers, one unit has been trialled since commissioning to ascertain the benefits. Initial data is very good to the extent of approx. +13% benefit, further development of the scheme at Old Rush Poultry Farm is under review and application process for variation in permitted activities.

Electricity use is consistently being monitored by the business with options for solar being considered and initiated when opportunities arise. At the current time solar is used on one house but is not considered a further expansion option for Old Rush Poultry Farm but the availability of the scheme is under constant review.

All light fittings on site are LED, no further improvements can be made at this time beyond reminding staff of switching off lights when they leave the buildings.

No alternative to diesel powering back up generators but stringent maintenance checks of twice a year servicing reduce the excessive emissions resulting from inefficient machines.

Recording

Use of electricity, diesel oil and water are recorded and details can be supplied to the Environment Agency as required.

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