

Sillinghurst farm

Permit number DP3931

1st October 2017 No change. 2018.

Energy review report update

No CHANGE 1st OCT '19

No CHANGE Reviewed.

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" " "

OCT 20

April 21

May '22

No changes required

may '23

" " "

May '24

No changes required

May '25 h.p.

Biomass boiler 1

A biomass boiler has been installed on the farm to run the heating in chicken houses 1 and 2.

It was turned on in July 2014.

The boiler runs the heating for the two chicken houses using radiant fan heaters which are 45 kW each there are two per house.

They are controlled by thermostats and a recirculation fan to avoid cold spots.

The existing oil heaters are still installed for emergency back up only.

Biomass boilers 2 – 5

Biomass boilers have been installed to run the heating in chicken houses 3 – 6 .

They were turned on in Feb 2015.

The boilers run the heating for chicken houses 3 -6 and each house has 6 heat exchangers in controlled by computer.

The existing oil heaters are still installed as emergency back up.

The out come of installing all the boilers has created a 100 % reduction in using heating oil.

Biomass boiler 1

The boiler is located to the side of chicken house 1 it comprises of two container units overall 16 meters in length.

One contains a froling boiler, a storage water tank with a 4000 litre capacity, an ash bin at 60 litre capacity and the controls for all the relevant pipe work etc.

The second unit contains an auger and storage with a capacity of 18 tonnes of wood pellets.

The pellets are blown into the sealed unit through a filler pipe.

The chimney rises 2.5 metres above the unit

40 tonne of wood pellets are used every crop of 9 weeks which has reduced our heating oil by 20 %

The ash bin collects the ash which is approx 20 kg per 9 weeks this is used on the land.

By March 2015 the heating oil will only be used as a back up as the whole farm will be heated by renewable energy in the form of biomass boilers burning wood chip and wood pellets.

Biomass boilers 2 + 3 and 4 + 5

The boilers are situated between the chicken houses at the rear.

Boiler 2 and 3 are in one building and boilers 4 and 5 in another.

Each building contains 2 froling TX 200 boilers.

There are bins of 60 ltrs in each building and all the relevant controls, meters and pipe works are contained in them.

The storage houses 2 augers and one agitator.

20 tonne of virgin wood chip, loaded with a loading shovel and 2 chimneys which rise approx 2 mtrs above the building.

There is between 60 – 100 tonnes of wood chip used per crop of chickens reducing the heating oil by 100 % is the chicken houses.

The ash is used on the land.

Wind turbine

A wind turbine of 250kW was installed on the farm in April 2011, this created more than enough electricity to cover the whole farm and living quarters. Any excess power produced from the turbine we are sending back through the national grid.

Action plan for future

Due to now being fully self sufficient in energy we have no immediate plans to change anything we are doing, we have created an environment for our livestock which runs well and we no longer need heating oils, we can not get any more efficient with our energy.

