

# **Planning, Design and Access Statement**

In relation to:

**Proposed Building incorporating CHP unit for generation of electricity and  
heat to be used for Agricultural production**

At

**Yeld Farm**

**Yeld Lane**

**Lyonshall Kington**

**Hereford HR5 3LY**

On behalf of:

**Simon Eckley**

**Yeld Farm**

**Lyonshall Kington**

**Hereford HR5 3LY**

**Prepared by A.C.Craig & Associates.**

3 Wilmore Street

Much Wenlock

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### ***Introduction***

This application is submitted on behalf of our client, Simon Eckley to erect a building and install a Combined Heat and Power (CHP) engine at their premises, Lyonshall.

### ***Location***

Yeld Farm is a long established farming business with interests in poultry production. The proposed building will be in the centre of the development, whilst being slightly higher than the adjacent Biomass building the size of the building is physically smaller and will not cause any impact on the location.

### ***Use***

The building will be used to house the Combined Heat and Power generator (CHP) plus the associated fuel storage facilities.

The CHP will produce approximately 165kW per hour of renewable electricity and the production of approximately 260kw of heat. The electricity produced will be used within the poultry houses any surplus fed into the National Grid. The heat produced will also be used on site to aid the drying of the biomass wood chip fuel which the farm uses to heat the poultry houses.

### ***Design***

The CHP will be accommodated within the building utilising 110sqm of floor space. The building will be divided by internal walls and fully lined with acoustic insulation to avoid any noise pollution to local receptors. The sound emissions will not exceed 40dB

Externally the sheds will be clad in insulated box profile sheeting (Dark Green) to match the surrounding buildings; there will be sectional doors to the side elevation providing access to the plant equipment.

The northern roof elevation will house two flue pipes for the CHP units.

The front, south elevation of the building will contain two sectional shutter doors to accommodate the opening requirements.

### ***Access***

From the main entrance to Farm there is a concrete driveway which leads directly to the side of the building and access into it will be by the shutter and pedestrian doors. Access is not considered to be a problem with this application.

### ***Landscaping***

The building is located within the complex of farm buildings and there should be no requirement for landscaping measures.

## **Noise**

There are residential properties out of the ownership of the applicant within 250m of the site located NNW of the proposed building. The bunding around the poultry sheds will act as noise prevention but as the noise levels are so low the bunds are considered unnecessary for this purpose as the decibel drop over this distance is greater than the sound emissions. Other identical units have been located within 100m of residential dwellings with no noise concerns.

The building at the CHP will be acoustically attenuated with the appropriate insulation and noise monitoring can be carried out to ensure limits are achieved after commissioning of the CHP. If any additional attenuation measures are needed to achieve the required levels they will be implemented.

## **Emissions**

The proposed CHP unit will operate using wood pellet through an advanced gasification process creating syngas in a gasifier, this unit has zero emission, the CHP engine is to be registered with Ofgem for RHI (Renewable Heat Incentive) and ROC's (Renewable Obligation Certificates) and will be subject to all the emission testing and regulation required by Ofgem and EA.

Details:- NO<sub>x</sub> 500mg/m<sup>3</sup> CO 300mg/m<sup>3</sup>, PM 10mg/m<sup>3</sup> (All based on 5% O<sub>2</sub>) Oxidation Catalyst.

Flue height 7-9m.

## **Transport.**

The system will need 32 deliveries a year for wood pellet and will likely reduce transport for wood fuel by 12-15 deliveries so expected net vehicle increase is 1.6 vehicle (artic) movements a month for delivery and about 0.4 servicing visits (transit vans) per month.

## **Policies**

The government's objective is that planning should fully support the transition to a low carbon economy in a changing climate. There should be a positive strategy to promote energy from renewable and low carbon sources.

The Shropshire Core Strategy, Objective 9 "To promote a low carbon Shropshire"

The National Planning Policy Framework provides a number of objectives/directives in support of renewable energy including "meeting the challenge of climate change, flooding and coastal change".

The UK Renewable Energy Strategy – A directive which includes a legally binding target to secure energy from renewables.