Proposal

Biomass Heating System

Country Herbs and Plants Ltd
Horseshoe Road
Spalding
Lincolnshire
PE11 3BE

DESIGN AND ACCESS STATEMENT

Version 1.0 December 2014

RenEnergy, Woodbastwick Road, Blofield Heath, Norwich, NR13 4RR

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1. Introduction

1.1. This Design and Access Statement has been prepared to accompany the planning application for a renewable heat project at Country Herbs and Plants Ltd. The project comprises a biomass boiler and fuel store, providing heating for the growing of herbs.

1.2. This document highlights the UK and European guidelines on renewable energy, addresses national and local validation requirements, describes the proposed installation and gives a contextual background to the proposed site.

1.3. It has been written to ensure that the Local Planning Authority has a proper understanding of the proposal and the local community are fully and accurately informed of the application.

The Applicant

1.4. The applicant is:

Country Herbs and Plants Ltd
Horseshoe Road
Spalding
Lincolnshire
PE11 3BE

Agent

1.5. The agent acting on behalf of the applicant is:

Melanie Smith
RenEnergy
Woodbastwick Rd
Blofield Heath
Norwich
Norfolk
NR13 4RR

1.6. RenEnergy are a Norfolk based renewables specialist, working with homeowners, farmers, landowners, contractors, consultants and architects in the private, public and construction sectors to deliver a wide range of renewable energy solutions. RenEnergy provides a full service from initial feasibility and design through to installation, commissioning and maintenance.

2. Biomass Proposal

Project Overview

2.1. Planning permission is sought to install a biomass boilers at this herb and plant growing facility.

2.2. Currently, all heating and cooling on the site is done with LPG fuel. LPG produces a large amount of CO_2, which the applicant is committed to reducing. By installing a biomass boiler, the business can drastically reduce carbon output and help to meet national carbon targets.

2.3. This project comprises a package biomass boiler within a shipping container. This has a fuel silo attached and a conveyor and auger intake for ease of fuel deliveries to the sealed silo.

2.4. The total development area for this application is 85m^2 , not including the access track back to the road, which is situated some 350m away from the location.

Site Location

2.5. The address of this site is:

Country Herbs and Plants Ltd
Horseshoe Road
Spalding
Lincolnshire
PE11 3BE

2.6. Country Herbs and Plants is approximately 3 miles south west of Spalding, situated to the north of Horseshoe Road off a private track. The site is surrounded by arable land and is adjacent to the South Drove Drain. The site is just visible from South Drove, due to the flat nature of the surrounding land.

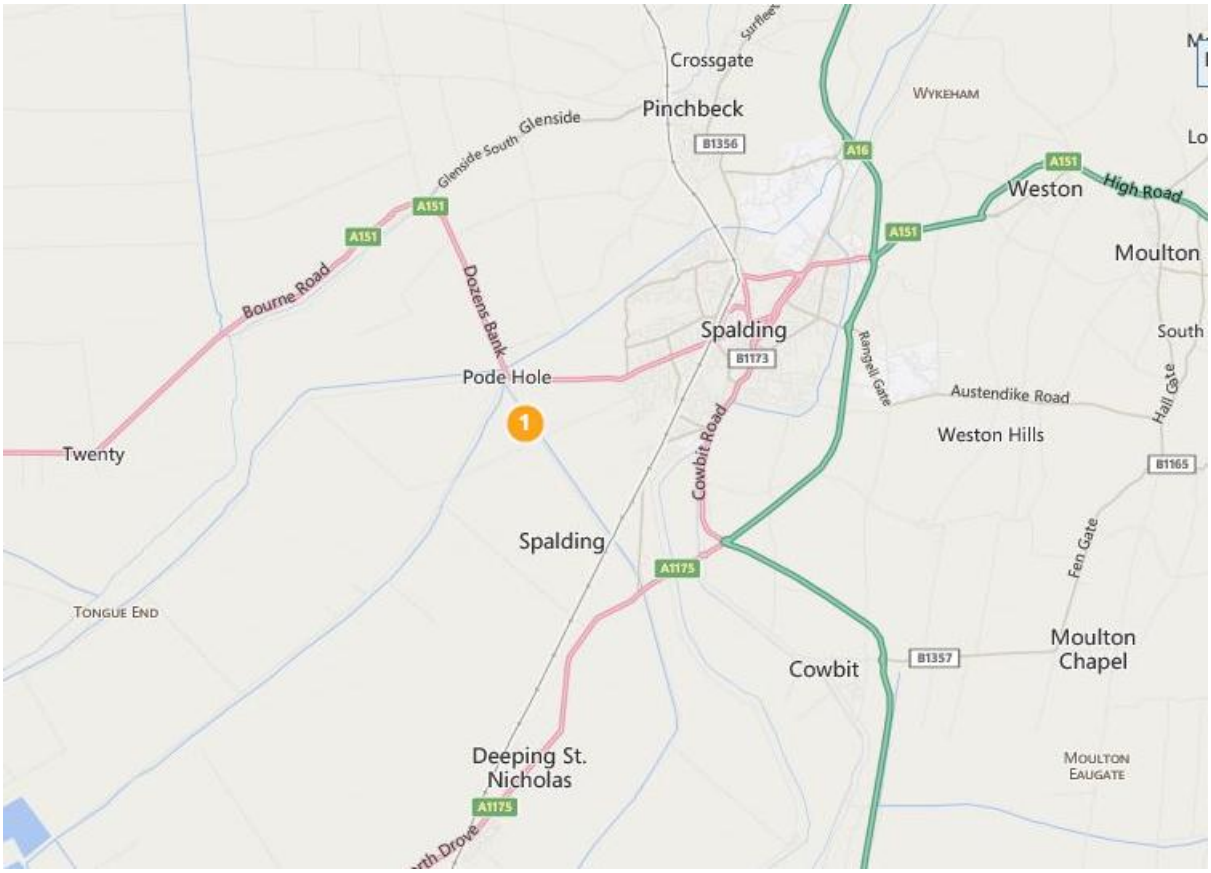


Fig 1. Site Location Map. Site location marked with number 1. ©Microsoft Corporation 2015

2.7. The site is made up of several greenhouses and tunnels used for growing herbs.

2.8. The proposed location for the biomass is behind a building and mature trees, precluding any views from South Drove.



Fig.2 – Site aerial. Proposal area shown with yellow box. Image taken from Bing Maps

Design

2.9. This application is to install a biomass boiler, within a self-contained unit. This will be connected to the internal heating and cooling system of the greenhouses.

2.10. The proposed container is a 20ft (6.1m) standard shipping containers, which is 2.4m wide and 2.6m high. This is painted green.

2.11. The container houses the biomass boiler and additional infrastructure including electricity connection. A flue will protrude from the roof of the plant room, from which the smoke produced by the boiler will emit.

2.12. A silo with a diameter of 6.1m will be situated south of the container to hold the biomass fuel. An external, lagged, buffer tank with a 2.5m diameter will also be external to the plant room unit. This will hold 15m^3.

Flue

2.13. The multi-cyclone flue system will remove particulate matter in line with the Clean Air Act to avoid excessive smoke and odour. The height of the flue will further ensure that emissions are dispersed away from the site.

2.14. What adds to the favour of the particular biomass appliance is the Multicyclone collector accessory which is used for collecting combustion waste with working efficiency. The multicyclone has a vertical design with load-bearing structure of thick steel plates complete with doors for periodic cleaning and maintenance, pedestals, ash box and belt-driven smoke intake fan.

2.15. Mutlicyclone Cyclones use centrifugal force to separate particulate out of the flue gases. There are no moving parts inside a cyclone body and no filter media. The flue gases with particulate matter enter the inlet at a high velocity along the inner wall at the top of the cyclone body. The clean flue gases exit out of the top. As gravity starts pulling the spinning particulate down, the taper of the cyclone body helps keep the spinning (cyclonic) effect in motion until the particle drops out the bottom of the cyclone body and into a hopper. A multi-cyclone uses numerous smaller diameter cyclones to improve efficiency.

2.16. The boilers have been noise tested and operate at <70dBa inside the container. This noise level is reduced from external to the container. These units are all several hundred meters from the nearest domestic property and as such do not pose a noise pollution risk.

Access

2.17. The site is accessed from the main road and once the installation of the boilers is complete there is no permanent increase in the number of vehicle movements.

3. Impacts

Flood Risk

3.1. Country Herbs site is within Flood Risk Zone 2 as specified by the Environment Agency as shown on Fig. 3 below.

3.2. The installation of these containers onto existing concrete will not exacerbate the risk of flooding.

3.3. All electrical equipment is kept off the ground, to ensure that if any flooding does occur to the area, the development is not affected.

3.4. This proposed installation is 84m^2 , The installation does not comprise any inhabitants and would not be considered “major development”. By applying the Planning Practice Guidance, we conclude that despite being in Flood Risk Zone 2, the nature of this development is acceptable.

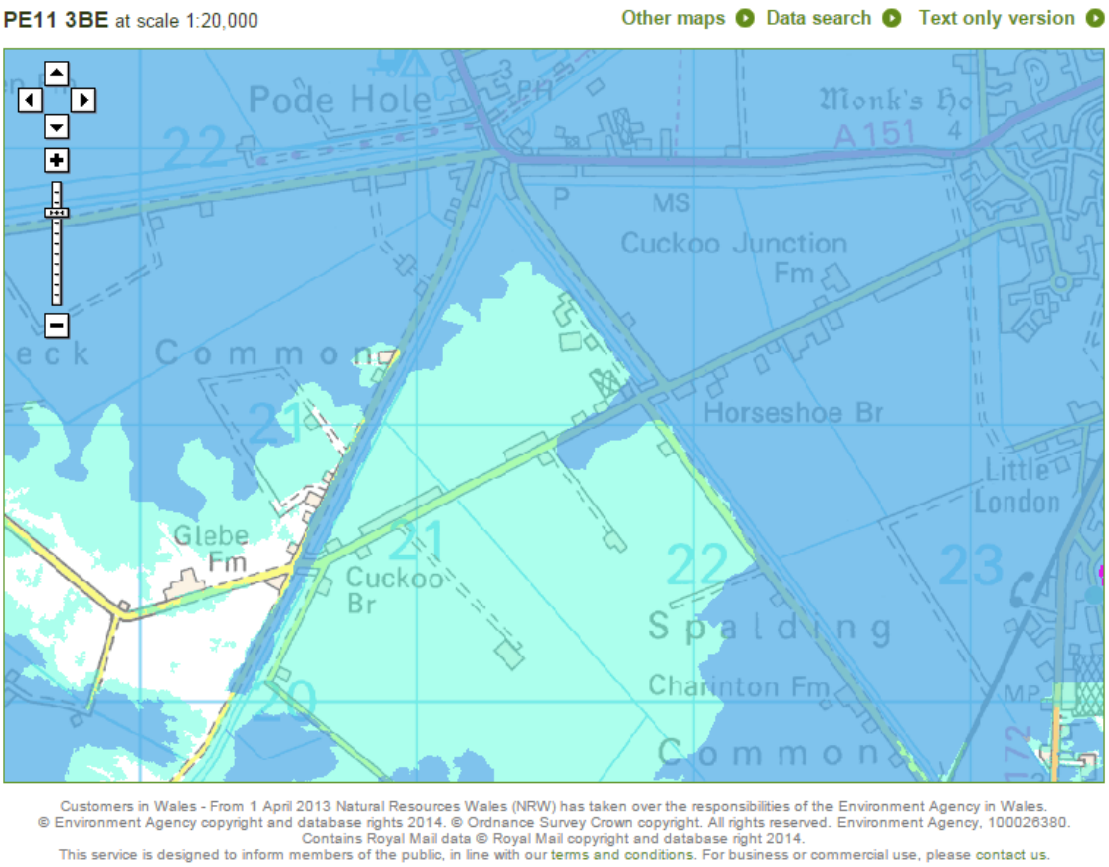


Fig. 3 – Flood Risk Map - http://maps.environment-agency.gov.uk/

Visual Impact

3.5. The location of the proposed equipment adjacent to the existing greenhouse prevents it from being visually imposing. There will be no negative impacts to the long ranging views of the local area with the installation of this plant.

4. Planning Policy and NPPF

National

4.1. The need for an increase in energy from renewable sources, thereby reducing carbon emissions is formally recognised across local, national and international contexts. Moves toward these targets have to be taken seriously by councils, businesses and homeowners alike.

4.2. The 2009 EU Renewable Energy Directive sets a binding target of achieving 20% of the EU's energy consumption from renewable energy sources by 2020. The UK share of this EU target commits the UK to sourcing 15% of UK energy from renewable sources by 2020.

4.3. The Renewable Energy Strategy (RES) and Low Carbon Transition Plan sets out the vision for the UK for the switch towards a low carbon economy and society. By 2020 the UK should be firmly on the way to an 80% reduction in carbon emissions by 2050. Renewable energy from wind, water, sun and

sustainable biomass will play a crucial part in making this happen. The RES recommends that over 30% of electricity come from renewable sources.

4.4. Paragraph 98 of the National Planning Policy Framework, published in April 2012, states that "local authorities should not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy".

Local

4.5. This installation lies within South Holland District Council. The council has a local plan which has been in place since 2006.

4.6. The local plan has several policies which offer support of this scheme, particularly SG7 – Energy Efficiency and EN3 – Renewable Energy.

Policy SG7 - Energy Efficiency

Development proposals will be encouraged where they are designed to provide maximum energy efficiency, through site layout and orientation, through the layout and design of individual buildings, including maximizing solar gain especially for residential buildings, and where they make full practical use of energy from renewable resources.

All development with a floor space of 1000 sq. m. or more, or 10 or more residential units, will be required to demonstrate good practice in energy efficiency and to incorporate renewable energy production equipment to provide at least 10% of its predicted energy requirements.

Policy EN3 - Renewable Energy

Proposals for the development of renewable energy schemes will be permitted in locations where environmental, economic and social impacts can be addressed satisfactorily. In assessing proposals for renewable energy schemes, the Council will have particular regard to the following issues:

1) The immediate and wider impact of the proposed development on the landscape.

2) The need to protect features and areas of natural, cultural, historical and archaeological interest

3) The measures that would be taken, both during and after construction, to minimise the impact of the development on local land use and residential amenity.

4) The cumulative effect of proposals.

Development proposals should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures.

4.7. This proposal does not impact upon statutory historical or natural sites. The installation will not be overlooked by any external residential homes and will not be passed by traffic.

4.8. This installation is proposed to deliver greater economic and energy security to a leading business. Their investment in this technology helps towards local and national renewable energy targets are being met, whilst increasing the sustainability of the overall supply chain.

5. Application plans and drawings

5.1. The documents and drawings submitted to accompany this application are as follows. This is in addition to the planning form.

- PR155-DAS - Design and Access Statement (this document)

5.2. All drawings are to scale as stated.

- PR155-P01 - Site Location Plan
- PR155-003-PLA-T02 - Elevations
- PR155-001-PRL-T01 – Layout plan