# Supporting Design and Access Statement for a proposed ‘change of use’ and installation of a biomass boiler into an existing industrial building at Westcott Venture Park (retrospective)


**Prepared on behalf of:**

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## Contents



## Supporting documents – plans and drawings

# INTRODUCTION

## Purpose of the Report

This report has been produced by Agriviro Consultancy on behalf of the applicant, Cade Capital Ltd. The purpose of the report is to request retrospective planning permission for the installation of a biomass boiler into an existing industrial building under the guidelines of a 'Change of Use' for the existing building from Buckinghamshire Country Council Planning Authority for the existing biomass boiler located at Bucks Recyling Ltd, Building 214, Westcott Venture Park, Westcott, Buckinghamshire HP18 0XB.

It is our opinion that the installation of a biomass boiler does not affect the size or scale of the existing industrial premises and as such we seek planning permission for a "change of use" retrospectively from a maintenance and repair workshop to a biomass boiler housing. There are no modifications to the existing building except for a 300mm diameter hole cut in the roof to allow an exhaust chimney stack to extend and three holes cut into the rear of the unit to allow the hot water flow and return pipe work to exit and enter the building. The system has already been to public consultation via the emissions permit which the installation is controlled under.

## About the Author

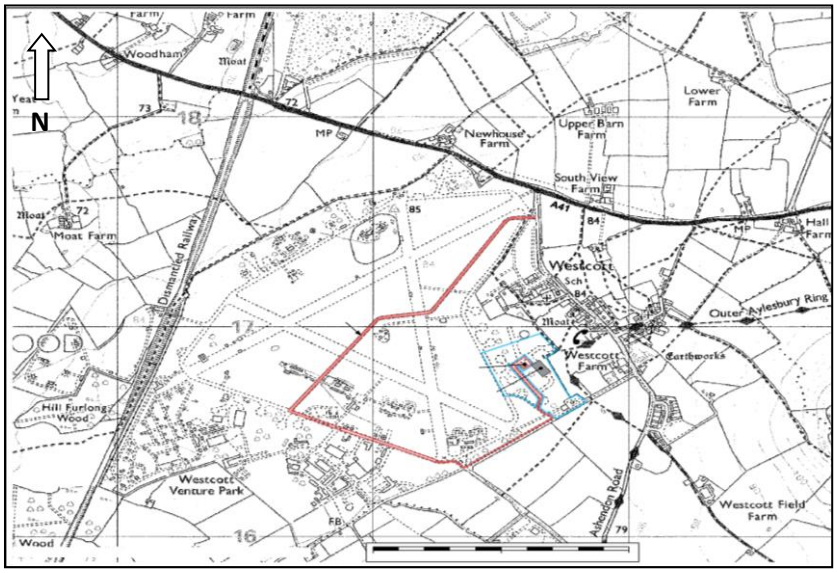
Shawn Jones is a specialist in renewable energies, biomass planning and environmental impact assessments. He has worked in this area in association with ADAS and Ecotec for a number of years and heads a team of dedicated professionals, each with their own specialisms in odour and ammonia assessments, water, waste, ecology, transport, noise, pollution and environmental impacts, specifically in relation to new energies, renewable and green energy developments.

## The Applicant

Mr Mike Wall is a Director of Cade Capital Limited and Ecotec Services Ltd who are renewable energy specialist and industry leaders in green energy and innovative renewable energy marketplace products. Providing complete green energy solutions, they are committed to a sustainable future. The solutions they have invested in developing, can reduce the reliance on fossil fuel by 50-75%, making them both cost effective and efficient with improved productivity. Cade Capital Ltd owns the biomass boiler that retrospective planning is requested for in this application.

Bucks Recycling (where the biomass boiler is located) have evolved and continue to evolve providing an essential localised niche market for taking in waste wood materials and using the sorted materials for fuel that sustains a biomass boiler in a highly controlled, efficient, environmentally friendly and sustainable way. In doing so Bucks reduce the impact on council resources such as landfill sites and public recycling centres. The biomass boiler in particular reduces vehicle movements from the site because the waste wood collected is utilised in the biomass boiler to create renewable energy used in the waste management process on site.

## The Location




Westcott Ventrue Park is a semi-industrialised disused airfield located near to and West of the village of Westcott, Buckinghamshire.

Red Keyline indicates the existing building, Blue Keyline indicate land under the ownership, Dark Red Keyline surrounding site is the existing access roads for Bucks Recycling.

## Site layout of proposed installation in existing industrial building

The industrial unit is centred on National Grid Reference: SP 71561680 (Eastings 471568) (Northings 216807) Westcott Venture Park, Westcott.


The site is set on a semi industrialised disused airfield that has been undergoing redevelopment owing to its potentially unlimited opportunities. The unit is well screened and a significant distance from dwelling houses and is an approved designated waste management facility.

Red Keyline indicates the existing Industrial Building at Westcott.

## The Proposal

The proposal is to install a 1MW biomass boiler with dual purpose into an existing industrial unit at Westcott Venture Park. The existing industrial premises previous use was to provide a protected workshop for maintenance and repair for Bucks Recycling. The existing unit will provide an ideal site to install a biomass boiler, requiring no modifications to the structures size or scale in order to do so.

The boiler itself will be fuelled by waste material gathered for recycling and sorting by Bucks Recycling Limited under permitted licence, granted permissions and certification. This process will provide green renewable heating for the unit itself and secondly used to dry woodchip and waste residues (already under LA permitted control) for the business, a green and renewable energy source, actively encouraged through government directives and also under the guidelines outlined in the National Policy NPPF 2012 to encourage the reuse of existing resources, including the conversion of existing buildings and encourage the use of renewable resources under the development of renewable energy.

## Building size and Design

The current building measures 178m² (square metres) with building dimensions of 19m x 9.4m. It has an apex height of 7m, and 6m to the eves.

It has an integral steel frame with external walls constructed from plastic coated steel cladding, dark green in colour.

Its roof is constructed out of dark grey steel coated corrugated steel cladding. The flooring is set to concrete and tarmac. The building has 2 access points. One main open-ended frontage of the building, with one single door set along the eastern elevation.

There are no modifications to the existing building since its erection and the main building size will not change except for a 300mm diameter hole cut in the roof to allow an exhaust chimney stack to extend and three holes cut into the rear of the unit to allow the hot water flow and return pipe work to exit and enter the building.

## Operation Permit Granted

Bucks Recycling is currently operating its biomass boiler under a highly controlled permit issued initially in December 2017 by Aylesbury Vale District Council and subsequently revised, amended and reissued in May 2019 to incorporate the activity of heat produced by the facility may also be used in association with waste drying. Permit Reference EH/00026404 and Permit Reference EH/00026404 v.2, under the Pollution Prevention and Control Act 1999, Local Authority Pollution Prevention and control Schedule 13A Small Waste Incineration Plant Permits (SWIP).

## Need for the development

The Government has stimulated the development of biomass heating systems for commercial applications by introducing the renewable heat incentive which is a payment to users of such systems. Biomass heating has been widely adopted by a variety of independent innovative businesses in the UK as an ethical sustainable green energy source. Further to the Government stimulation the biomass boiler system also reduces traffic movements as some of the waste

wood is utilised as the fuel in the biomass boiler, and the heat is used to reduce the weight of other residues leaving site for further recycling and processing or destruction. By reducing the weight of the product less transport is required.

## Biomass Boilers

Biomass boilers offer greener efficient energy, fuelled from renewable resources such as sorted waste wood materials, woodchip & pellets, sourced from recycling or sustainable cropping and harvesting.

## Justsen Biomass Boiler

The biomass boiler is an IED compliant Justsen Hot Water Boiler System JWB 1MW. The boiler dimensions are 4670mm in length, 2485mm in width and 4915mm in height. It operates to a maximum pressure of 3 bar and operating temperatures vary between $90^0$C and $110^0$C, burning approximately 300kg of sorted waste wood per hour during peak operating times. It has a stack height of 9990mm from the ground and a flue diameter of 300mm.

It is fitted with the very latest ceramic filters for particulate removal, with its chimney only emitting condensed water vapour with no droplets and no particulate matter. Its exhaust system is free from any visible smoke and completely odour free. The system is fully compliant with the Industrial Emissions Directive (IED) and the appliance is fitted with a continuous electronic monitor that permanently calibrates its operation and controls the emissions to atmosphere by adding abatement automatically.

## Waste wood fuel source

The waste wood/materials will be sourced locally from businesses aiming to recycle their waste materials and reduce the impact on the planet's resources. This is a thriving and rapidly expanding source of fuel for Bucks Recycling. Approximately 6,500tons of wood-based materials are being processed per year, broken down into approximately 5 collections/deliveries to site per day.

## Fuel Control

Only the burning of grade A, B and C waste wood is permitted from local accredited wood recyclers is permitted from the following European Waste Category (EWC) codes:

- 030105 –Sawdust, shavings, cuttings, wood, particle board and veneer.
- 150103 –Wooden packaging
- 170201 –Wood from construction and demolition waste
- 200138 –Municipal waste wood not containing hazardous substances
- 191207 –Commercial waste wood not containing hazardous substances

## Access

The plan reference 1116/PB/L/1 shows the internal access that exists, its surface is laid to tarmacadam and concrete. Its internal road network begins at the entrance to Venture Park and the edge of the recycling centre, leading to the final section of access that forms part of a disused concrete taxiway laid when the site was an airfield. This section has been recently repaired and strengthened to sustain vehicle access directly to the biomass boiler housing. Traffic movements are primarily scheduled to deliver the raw recycling material. To access the site from various routes. To the north from the A41 exiting onto the high street (Westcott) and directly to Venture Parks internal access road and from the south.

## Transport and Vehicle Movements

The company have a fleet of skip vehicles that are used to collect and transport the recycled material from designated suppliers/contractors. Each vehicle is fitted with a specialised cover to secure the recycled material during transportation guaranteeing safe movement direct to Venture Park. These vehicle movements remain static at up to 100 vehicle movements on site per day.

There are no anticipated increases in vehicle movements to the current operation. The only change being on arrival to site the material is sorted in readiness to be used as fuel for the biomass boiler. In terms of parking there is no change to current use of hardstanding area currently designated.

| Activity | Current HGV | Increase HGV | Total HGV |
|---|---|---|---|
| Recycled materials | 100 per day | 0 | 100 |
| **Operation hours** | **Mon – Fri** | 07:00 – 18:00 | **Annual Tonnage** |
| | **Sat** | 07:00 – 13:00 | **Max Limit 50,000** |

## Landscape

The existing industrial unit is enclosed by bunds and adjacent units substantially higher and dominant than itself. It is felt that the addition of 1 small exhaust stack extending from the roof approximately 3 metres and standing 9990mm from the floor will not have any additional impact to either the existing industrial building, nor to the surrounding developing industrial landscape. There is no material impact on the landscape character, nor does it affect the Chilterns AONB.

## Odour

There is no associated odour with the incoming waste wood material. Following sorting the material and preparing for burning the material is clean, dry and odourless. During the process of burning the recycled materials in the biomass boiler, owing to state-of-the-art ceramic filters the odour levels are below 0.0030m2 as close to zero levels as possible.

## Dust

All waste fuels and all dusty or potentially dusty materials shall be stored in covered containers, purpose built silos or undercover. Shredding of offcuts and bales shall be done in a machine under negative pressure vented to suitable arrestment plant. All spillages shall be cleared up promptly by vacuum cleaning,

wet methods, or other appropriate techniques. Dry sweeping of dusty spillages will not be done.

### Climate, renewable resources and the environment

It is hoped that the site will be a net user of sorted recycled materials in the use of renewable and green energy. Owing to the increasing and constant supply of waste materials under contract to the enterprise, no further assessment of energy use and climate impacts is therefore proposed.

### Ecology and biodiversity

The ecological impacts have been assessed as insignificant because the building is currently in use for machinery that is being maintained and for storing chipped wood and will continue to do so, so will have no real term change in use, other than the chipped wood would be drier with the biomass boiler in situ.

### Noise

Ecotec Services who installed the boiler have built multiple identical systems elsewhere in the UK. They advise that “there is no discernible noise 5m from the installation when the boiler is running at full output”. The suppliers of the boiler (Justsen) confirm this fact.

### Air Quality

As part of the Environmental Permitting Regulations a full air quality assessment was carried out prior to the granting of the permit to operate the installation under Permit Reference EH/00026404 and Permit Reference EH/00026404 v.2.

### Drainage and surface water

The general direction of surface drainage is broadly southwards following the gentle gradient of the land and along the southern boundary. There will be no changes to the existing sustainable drainage system that currently discharges into the surrounding ‘greenfield’ land and there will be no change to the quantity

of water draining into the grassland owing to the installation of the biomass boiler. Used water from the biomass boiler itself will empty directly into the drainage system adjoining the main road, this is not a common event however.

## Planning Policy Context

National Policy NPPF 2012 – a framework set out to contribute to protecting and enhancing our natural, built and historic environment. Helping to improve biodiversity, the use of natural resources prudently, minimise waste and pollution and mitigate and adapt to climate change including moving to a low carbon economy.

Its core planning principals are to support the transition to a low carbon future, to encourage the reuse of existing resources, including the conversion of existing buildings and encourage the use of renewable resources under the development of renewable energy.

To support the move to a low carbon future, local planning authorities are advised to actively support energy efficient improvements of existing buildings.

To help increase the use and supply of renewable and low carbon energy and energy generation using a strategy to promote renewable energy. Local planning authorities are advised and should not require applicants for energy development to demonstrate the overall need for renewable energy and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. Local authorities are also advised to approve the application if its impacts are acceptable and suitable.

Statutory air quality standards in the UK are set by the Air Quality Standards Regulations 2010 (hereafter referred to as 'the Regulations'). This effectively transposes into UK law the requirements of several European Union Directives on air quality. Underpinning the Regulations is the National Air Quality Strategy (NAQS) which sets health based standards for a range of key pollutants. The NAQS was most recently reviewed and updated. The objectives set by the NAQS and the Regulations are the same for the key pollutants.

The key pollutants in respect of the proposed development are nitrogen dioxide (NO2) and PM10. The long term NAQS objective for each of these pollutants is 40 ug/m3 measured as an annual mean. The short term objective for PM10 specifies that a 24 hour mean PM10 level of 50 ug/m3 is not to be exceeded more than 35 times per year.

Nitrogen dioxide has an hourly objective of 200 ug/m3 not to be exceeded more than 18 times per year. These statutory reference points provide the benchmark against which the proposal is assessed.

Planning Policy Statement 23 (PPS23) provides the government ‘s policies on planning and pollution control and is intended to compliment the pollution control framework. Appendix A of PPS23 provides a list of matters that need to be considered when making decisions on individual planning applications. One of these matters is also related to odour and states that: “the possibility that (whether or not some aspects of the development are subject to pollution control), emissions of smoke, fumes, gases, dust, steam, smell, vibration or noise from the development might nevertheless be seriously detrimental to amenity in addition to constituting a statutory nuisance under Part III of the Environmental Protection Act 1990.”

## Conclusions

1. The use of biomass reduces carbon footprint by obviating the use of fossil fuels.
2. The Government support the adoption of such systems with financial assistance provided by the renewable heat incentive.
3. Any impact will be insignificant as the boilers will be housed in an existing industrial building.
4. The development complies to the guidance set under the National Policy NPPF 2012 to encourage the reuse of existing resources, including the conversion of existing buildings and encourage the use of renewable resources under the development of renewable energy.

## Sustainability

This project meets sustainability objectives in the following ways:

1. Replaces fossil fuels
2. Fuel sourced locally in order to reduce transport carbon footprint
3. Fuel sourced from industrial recycling facilities
4. Supporting renewable energy market
5. Supporting Government directives and targets

## Summary

1. The supporting design and access statement submitted with the planning application outlines the proposed change of use of an existing industrial building (retrospectively) from a maintenance and repair workshop to a biomass boiler house with no structural changes or modifications to the size and scale of the existing building.

2. The supporting design and access statement also covers the specification of the boiler itself, need for the development, its location, associated air quality, noise, dust, odour, ecology, transport, landscape, water and waste management comments that fully support the development.

3. Aylesbury Vale District Council have authorised and approved a new permit in December 2017, revised and subsequently reissued in May 2019 Ref: EH/00026404v2. Under the policy of Local Authority Pollution Prevention and Control. Schedule 13A Small Waste Incineration Plant (SWIP) Permit, as such support the installation and recycling process of the biomass boiler.

4. Allowing this sustainable development will not only provide additional employment, but also ultimately assist in the production of recycled materials reducing the impact on council resources such as landfill sites and public recycling centres.

5. the proposal provides a sustainable development that reduces the carbon footprint of the site. The existing building will benefit from the proposals utilising recycled and renewable fuel source with minimal impact to the site or current practices.

For these reasons, we would request that retrospective planning approval for a change of use is granted for the proposed biomass boiler housed in an existing industrial building.

## References

Ref. 1 Town & Country Planning (Environmental Impact Assessment) Regulations 1999. Statutory Instrument 1999 No 293. London: HMSO.

Ref. 2 Multi Agency Geographic Information for the Countryside. www.magic.gov.uk. Date website retrieved: 1st Dec 2019.

Ref 3: Horizontal Guidance Note H1: Environmental Risk Assessments for Permits. Environment Agency. 2019.

Ref. 4: Environment Agency Technical Guidance Note H4: Odour Management. Consultation Draft. November 2019.

Ref. 5: Pollution Prevention and Control Act 1999, Permit EH/00026404 v.2.

Ref. 6: National Policy NPPF 2012.