



## Non-Technical Summary

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### Parc Busnes Edwards Biomass Boiler

### Dragon Fruit Holdings Limited

Report No. CRM 373 003 PE R 003



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## Non-Technical Summary - CRM 373 003 PE R 003

Project:	Edwards Business Park Biomass Boiler
For:	Dragon Fruit Holdings Limited
Status:	FINAL
Date:	November 2022
Author:	Steph Charnaud, Director of Permitting
Reviewer:	Peter Cumberlidge, Director

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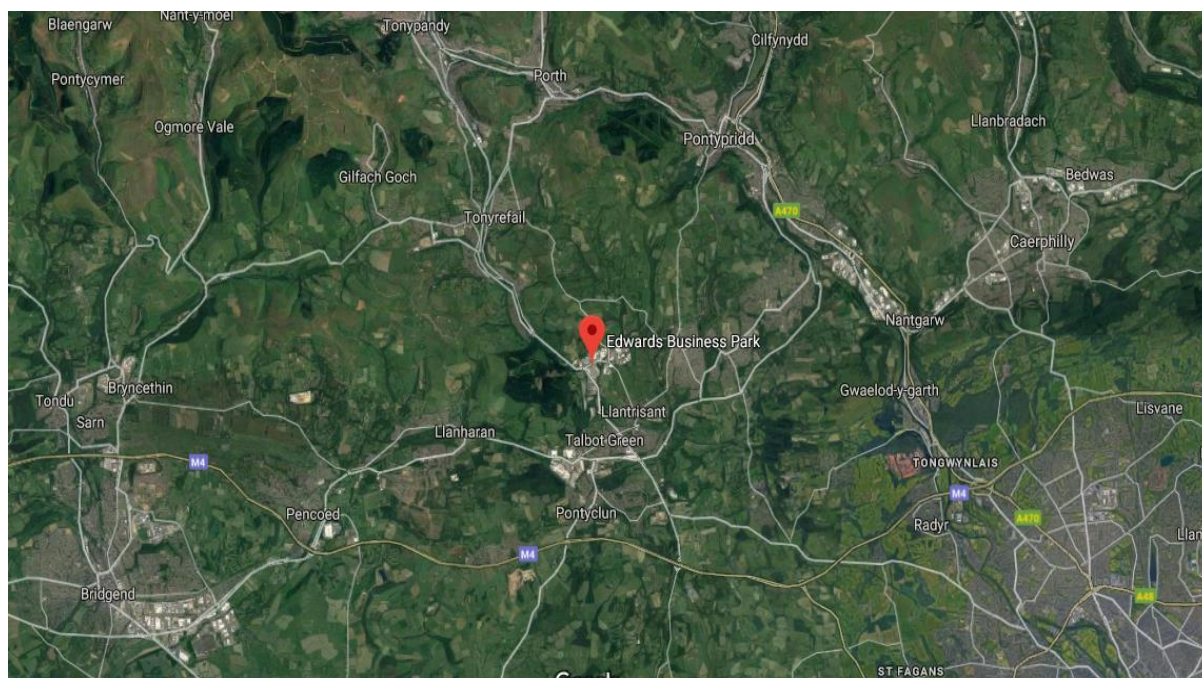
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## 1.1 Introduction

1.1.1 This non-technical summary provides an overview of an application submitted to Natural Resources Wales for a Normal Permit Variation to a Bespoke Environmental Permit to operate a Wood Chip Powered Biomass Boiler plant within Edwards Business Park, Llantrisant, Pontyclun, CF72 8QZ.

1.1.2 Figure 1.1.1 below shows the location of the site.

**Figure 1.1.1: Site Location**



©Google Maps 2022

1.1.3 The full address of the site is:

Parc Busnes Edwards Biomass Boiler  
Parc Busnes Edwards  
Land off Alexandra Drive  
Llantrisant  
Pontyclun  
CF72 8QZ

1.1.4 The Facility is operated by Dragon Fruit Holdings Ltd; whose registered office is: The Courtyard, Edwards Business Park, Llantrisant, Pontyclun, CF72 8QZ. Company Registration Number is: 10012716.

1.1.5 The primary contact for the application is Steph Charnaud, Principal Consultant, Enzygo Limited, [steph.charnaud@enzygo.com](mailto:steph.charnaud@enzygo.com).

1.1.6 The plant occupies an area of approximately 396m<sup>2</sup> and the NGR of the centre of the site is ST 03725 84379.

1.1.7 The nearest watercourse is the Nant Muchudd 61.2m to the south southeast of the proposed Facility boundary and the Ely River 194m to the west of the proposed Facility boundary.

1.1.8 The Royal Glamorgan Hospital is on the opposite side of the A4119, Ely Valley Road, approximately 74m to the west of the proposed Facility boundary.

1.1.9 The nearest residential property is located approximately 215m to the west of the site in Ansari Court.

1.1.10 The prevailing wind direction at the site is from the south-west.

## **1.2 Process Description**

1.2.1 The proposed plant will combust virgin wood-chip with three biomass boilers to provide heat to the buildings within the adjacent business park.

1.2.2 The proposed facility will comprise of the following elements:

- 2 x 1.2MWth WK RRK 1000 Binder boilers;
- 1 x 1.2MWth Hargassner Magno-SR 1200 boiler;
- 3no. 9 meter flues;
- 3no. buffer tanks;
- 3no. hot water tanks; and;
- Facility Building.

1.2.3 The facility will also have a virgin wood chip storage area. However, this does not fall under Schedule 25A of the Environmental Permitting (England and Wales) Regulations and is unchanged from the current operation.

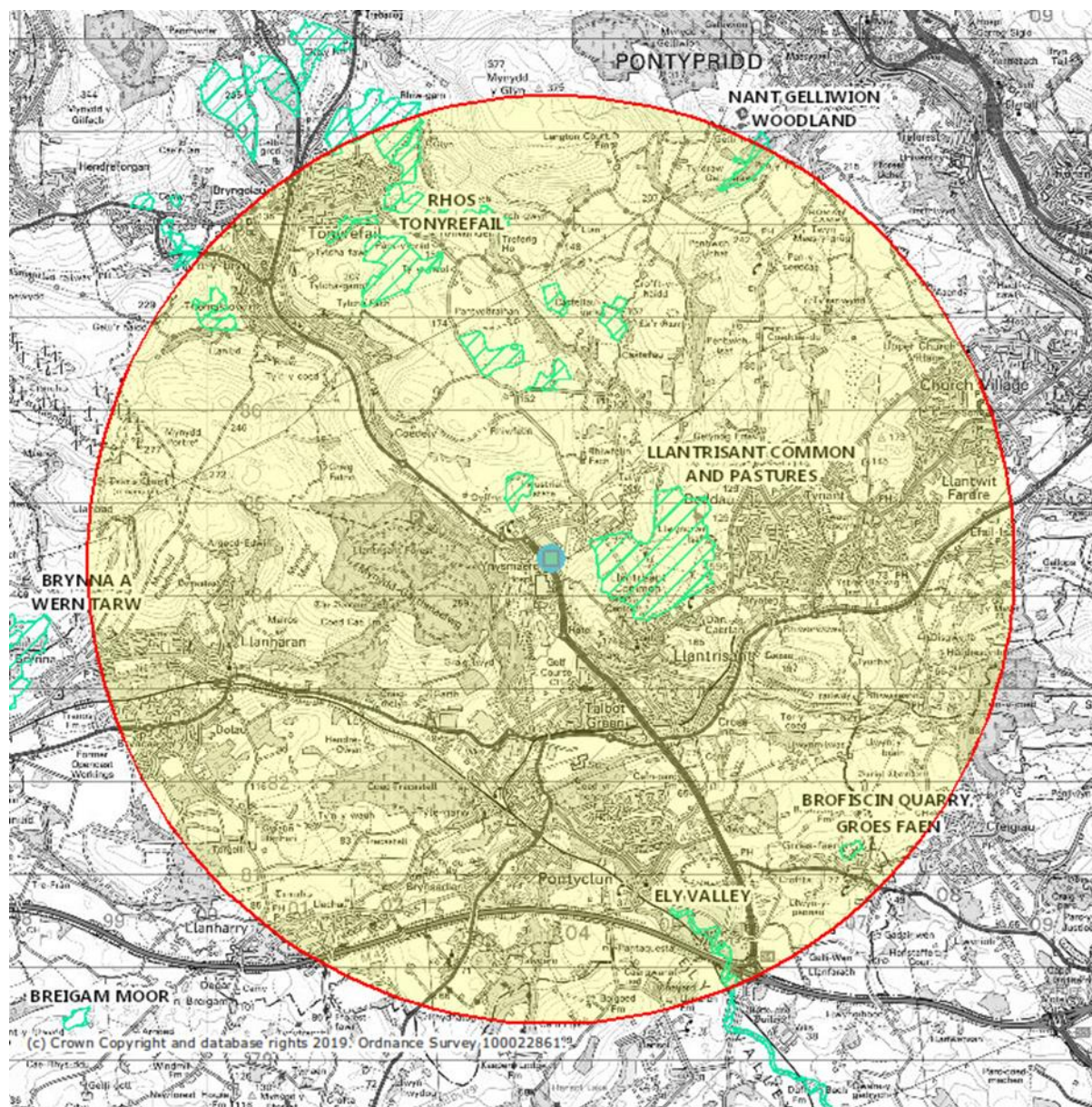
## **1.3 Sensitive Receptors**

1.3.1 A review of MAGIC ([www.magic.defra.gov.uk](http://www.magic.defra.gov.uk)) showed three Sites of Special Scientific Interest (SSSIs) within 2kms of the site, Llantrisant Common and Pastures 476m to the east of the proposed Facility, Rhos Tonyrefail 668m to the north north west of the proposed Facility and Rhos Tonyrefail 1844m to the north of the proposed Facility. Key sensitive receptors are presented in Figure 1.3.1 below.

1.3.2 MAGIC did not show any Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or RAMSAR sites within 5kms of the proposed Facility. Key sensitive receptors are presented in Figure 1.3.1 below.

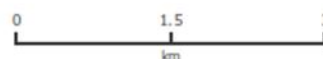
1.3.3 An Air Quality Assessment has considered the impacts on sensitive receptors, focusing on human health receptors. A full copy of the Air Quality Assessment has been submitted with this application.

**Figure 1.3.1: Sensitive Ecological Receptors (taken from MAGIC)**



#### Legend

 Sites of Special Scientific Interest (Wales)



Projection = OSGB36

xmin = 288500

ymin = 177100

xmax = 319000

ymax = 191700

Map produced by MAGIC on 9 May, 2019.

Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

## 1.4 Air Quality Assessment

1.4.1 An Air Quality Assessment was completed in November 2022 by Enzygo Limited as part of the preparatory work undertaken to support this Permit Application.

- 1.4.2 The assessment focussed on the impacts of emissions of nitrogen oxides and dust (as PM<sub>10</sub>) from the boilers, as required under Schedule 25A of the Environmental Permitting (England and Wales) Regulations 2016 (as amended) and the Medium Combustion Plant Directive.
- 1.4.3 Emissions of sulphur dioxide, which are a specified emission under Schedule 25A of the Environmental Permitting (England and Wales) Regulations 2016 (as amended 2019), from virgin wood fired biomass plants are negligible.
- 1.4.4 The Air Quality Assessment, undertaken using the AMDS5 (V5.3) dispersion model, demonstrated that both human and ecological impacts at all receptors for all pollutants (nitrogen dioxide, PM<sub>10</sub>, and carbon monoxide) are judged to be insignificant.

## **1.5 Monitoring and Regulation**

- 1.5.1 Natural Resources Wales will be responsible for regulating the proposed facility, including ensuring a written management system is in place prior to operation. Natural Resources Wales relies heavily on the use of an effective Environmental Management Systems (EMS) as a driver for environmental compliance and improvement. As a minimum, the management system will address the following areas:
- Cleaning and maintenance;
  - Training and plant operation;
  - Emission monitoring;
  - Plant failures; and
  - Records keeping.
- 1.5.2 NO<sub>x</sub> as (NO<sub>2</sub>), dust (as PM<sub>10</sub>) and CO emissions will be monitored every 3 years, and emissions monitoring will be conducted by an MCerts accredited organisation- verified using MCerts monitoring methods. MCerts is the Environment Agency's Monitoring Certification Scheme, which provides a framework for businesses to meet their quality requirements. The operator will notify the regulator where possible in advance of monitoring taking place, to allow the regulator to witness the testing.
- 1.5.3 The Environment Agency's monitoring guide, *M5 Monitoring of stack emissions from medium combustion plants and specified generators, July 2022*, will be followed.
- 1.5.4 The Operator will submit the results of any periodic emissions testing to the regulator once they have received the results, in accordance with timescales and format agreed with the regulator.
- 1.5.5 Initial monitoring of the proposed additional boiler will be undertaken within 4 months of Permit issue date, or the start of operation, whichever is the latest. The frequency of testing thereafter will be conducted as specified in the Environmental Permit.

## **1.6 Conclusion**

- 1.6.1 Dragon Fruit Holdings Limited are proposing to add an additional wood-chip fired biomass boiler, to the two existing boilers within Parc Busnes Edwards, Llantrisant. The Operator will be required to hold an Environmental Permit under the Environmental Permitting (England and Wales) Regulations 2016 (as amended).
- 1.6.2 The plant will operate continuously throughout the year.

- 1.6.3 Overall, the air quality impacts of the proposed development have been judged to be 'not significant', as emission levels are so far beneath the air quality objective.
- 1.6.4 Natural Resources Wales will be responsible for regulating the proposed facility, including ensuring a written management system is in place prior to operation.
- 1.6.5 It is proposed that NO<sub>x</sub> (as NO<sub>2</sub>), dust (as PM<sub>10</sub>) and CO emissions will be monitored once every three years. Initial monitoring of the proposed additional boiler will be undertaken within 4 months of the Permit issue date, or start of operation, whichever is the latest.
- 1.6.6 The frequency of testing thereafter will be conducted as specified in the Environmental Permit.



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