

**Non Technical Summary**  
**Bridgwater Power Generation Plant**

**Client: Conrad (Bridgwater) Limited**

**Reference: 3963-2r1**

**Date: 12<sup>th</sup> August 2022**



## Report Issue

Report Title: Non Technical Summary - Bridgwater Power Generation Plant

Report Reference: 3963-2

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	1	2	3	4
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## **1.0 NON TECHNICAL SUMMARY**

### **1.1 Location**

1.1.1 Conrad (Bridgwater) Limited propose to construct and operate the Bridgwater Power Generation Plant on land off Axe Road, Bridgwater.

1.1.2 The site is located at National Grid Reference (NGR) is 330839, 135911. Reference should be made to Figure 1 for a map of the site and surrounding area.

1.1.3 The site is within the jurisdiction of Somerset District Council. The closest Air Quality Management Area to the plant is located approximately 9.7km south-west of the site. This has been declared due to exceedences of the annual mean Air Quality Objective (AQO) for nitrogen dioxide (NO<sub>2</sub>).

### **1.2 Company Details**

1.2.1 The company name of the legal operator of the facility is Conrad (Bridgwater) Limited. The company number is 13815308.

### **1.3 Facility Description**

1.3.1 It is proposed to operate a gas fuelled generator set consisting of the following plant:

- One MTU 16V4000 GS engine with a thermal input of approximately 4.6MW; and,
- One Jenbacher J620 E12 engine with a thermal input of approximately 7.1MW.

1.3.2 Reference should be made to Appendix 1 for the generator technical data sheets.

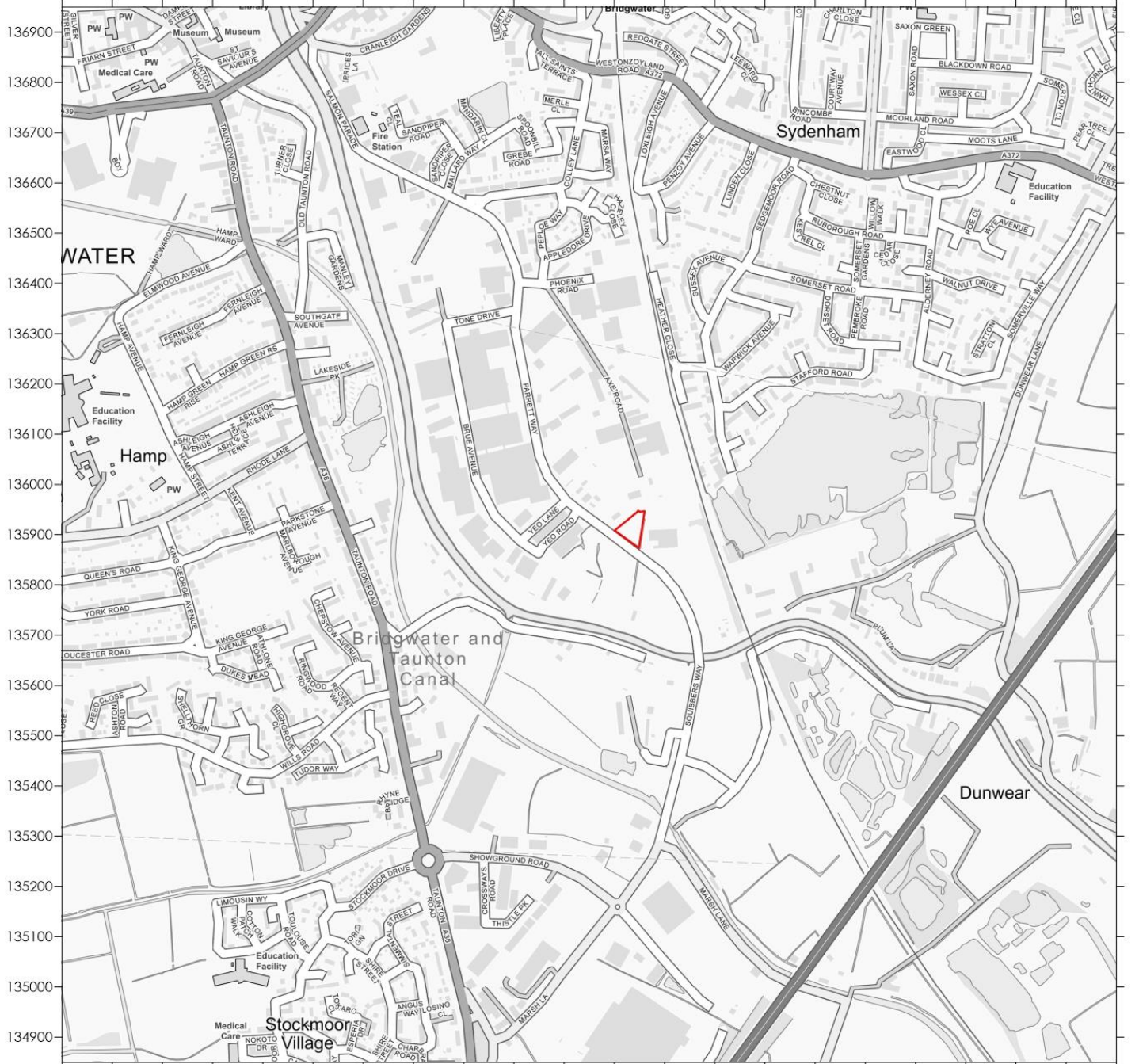
1.3.3 The site will not accept or use waste as a feedstock for the proposed facility.

## **1.4 Atmospheric Emissions**

- 1.4.1 It is confirmed that the plant will comply with the relevant emission limit value for oxides of nitrogen (NO<sub>x</sub>) of 95mg/Nm<sup>3</sup> at a temperature of 273.15K, a pressure of 101.3kPa and after correction to dry gas and standardised oxygen (O<sub>2</sub>) content of 15%. This is the equivalent of 250mg/Nm<sup>3</sup> at 5% O<sub>2</sub>.
- 1.4.2 The key environmental risks as a result of the proposed plant are impacts at sensitive human receptors as a result of atmospheric emissions from the site.
- 1.4.3 An Air Quality Assessment (reference: 3963-1) was undertaken by Redmore Environmental Ltd in support of the Environmental Permit application. This utilised dispersion modelling to quantify pollutant levels associated with atmospheric emissions from the plant. The results indicated that impacts on annual and 1-hour mean NO<sub>2</sub> concentrations were not predicted to be significant at any sensitive receptor location.
- 1.4.4 Reference should be made to Figure 2 for a graphical representation of the sensitive receptor locations.
- 1.4.5 It is confirmed that compliance will be maintained with any stack emissions monitoring requirements outlined within the Environmental Permit.

**Figures**

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329700 329800 329900 330000 330100 330200 330300 330400 330500 330600 330700 330800 330900 331000 331100 331200 331300 331400 331500 331600 331700 331800

**Legend**



**Title**  
Figure 1 - Site Location Plan

**Project**  
Non Technical Summary  
Bridgwater Power Generation Plant

**Project Reference**  
3693-2

**Client**  
Conrad (Bridgwater) Limited

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- Legend**
-  Site Boundary
  -  Sensitive Receptor

**Title**  
Figure 2 - Sensitive Receptor Locations

**Project**  
Air Quality Assessment  
Bridgwater Power Generation Plant

**Project Reference**  
3963-2

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**Appendix 1 - Generator Technical Data Sheets**

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