Medworth Energy from Waste
Combined Heat and Power Facility

PINS ref. EN010110
Document Reference: Vol 9.21
Revision: 1.0
Deadline: 1
March 2023

Outline Local Air Quality Monitoring Strategy

We inspire with energy.

Contents

1. Introduction

1.1 Background

1.1.1 Medworth CHP Limited (the Applicant) is applying to the Secretary of State (SoS) for a Development Consent Order (DCO) to construct operate and maintain an Energy from Waste (EfW) Combined Heat and Power (CHP) Facility on the industrial estate, Algores Way, Wisbech, Cambridgeshire. Together with associated Grid Connection, CHP Connection, Access Improvements, Water Connections, and Temporary Construction Compound (TCC), these works are the Proposed Development.

1.1.2 The Proposed Development would recover useful energy in the form of electricity and steam from over half a million tonnes of non-recyclable (residual), non-hazardous municipal, commercial and industrial waste each year. The Proposed Development has a generating capacity of over 50 megawatts and the electricity would be exported to the grid. The Proposed Development would also have the capability to export steam and electricity to users on the surrounding industrial estate. Further information is provided in **Chapter 3: Description of the Proposed Development (Volume 6.2)**.

1.1.3 The Proposed Development is a Nationally Significant Infrastructure Project (NSIP) under Part 3 Section 14 of the Planning Act 2008 (2008 Act) by virtue of the fact that the generating station is located in England and has a generating capacity of over 50 megawatts (section 15(2) of the 2008 Act). It, therefore, requires an application for a DCO to be submitted to the Planning Inspectorate (PINS) under the 2008 Act. PINS will examine the application for the Proposed Development and make a recommendation to the SoS for Business, Energy and Industrial Strategy (BEIS) to grant or refuse consent. On receipt of the report and recommendation from PINS, the SoS will then make the final decision on whether to grant the Medworth EfW CHP Facility DCO.

1.2 The Applicant and the project team

1.2.1 The Applicant is a wholly owned subsidiary of MVV Environment Limited (MVV). MVV is part of the MVV Energie AG group of companies. MVV Energie AG is one of Germany's leading energy companies, employing approx. 6,500 people with assets of around €5 billion and annual sales of around €4.1 billion. The Proposed Development represents an investment of approximately £450m.

1.2.2 The company has over 50-years' experience in constructing, operating, and maintaining EfW CHP facilities in Germany and the UK. MVV Energie's portfolio includes a 700,000 tonnes per annum residual EfW CHP facility in Mannheim, Germany.

1.2.3 MVV Energie has a growth strategy to be carbon neutral by 2040 and thereafter carbon negative, i.e., climate positive. Specifically, MVV Energie intends to:

- reduce its direct carbon dioxide (CO_2) emissions by over 80% by 2030 compared to 2018;
- reduce its indirect CO_2 emissions by 82% compared to 2018;
- be climate neutral by 2040; and
- be climate positive from 2040.

1.2.4 MVV's UK business retains the overall group ethos of 'belonging' to the communities it serves whilst benefitting from over 50 years' experience gained by its German sister companies.

1.2.5 MVV's largest project in the UK is the Devonport EfW CHP Facility in Plymouth. Since 2015, this modern and efficient facility has been using around 265,000 tonnes of municipal, commercial and industrial residual waste per year to generate electricity and heat, notably for Her Majesty's Naval Base Devonport in Plymouth, and exporting electricity to the grid.

1.2.6 In Dundee, MVV has taken over the existing Baldovie EfW Facility and has developed a new, modern facility alongside the existing facility. Operating from 2021, it uses up to 220,000 tonnes of municipal, commercial and industrial waste each year as fuel for the generation of usable energy.

1.2.7 Biomass is another key focus of MVV's activities in the UK market. The biomass power plant at Ridham Dock, Kent, uses up to 195,000 tonnes of waste and non-recyclable wood per year to generate green electricity and is capable of exporting heat.

1.3 The Proposed Development

1.3.1 The Proposed Development comprises the following key elements:

- The EfW CHP Facility;
- CHP Connection;
- Temporary Construction Compound (TCC);
- Access Improvements;
- Water Connections; and
- Grid Connection.

1.3.2 A summary description of each Proposed Development element is provided below. A more detailed description is provided in **ES Chapter 3: Description of the Proposed Development (Volume 6.2)** of the ES. A list of terms and abbreviations can be found in **Chapter 1 Introduction, Appendix 1F Terms and Abbreviations (Volume 6.4)**.

- EfW CHP Facility Site: A site of approximately 5.3ha located south-west of Wisbech, located within the administrative areas of Fenland District Council and Cambridgeshire County Council. The main buildings of the EfW CHP Facility would be located in the area to the north of the Hundred of Wisbech Internal Drainage Board (HWIDB) drain bisecting the site and would house many

development elements including the tipping hall, waste bunkers, boiler house, turbine hall, air cooled condenser, air pollution control building, chimneys and administration building. The gatehouse, weighbridges, 132kV switching compound and laydown maintenance area would be located in the southern section of the EfW CHP Facility Site.

- CHP Connection: The EfW CHP Facility would be designed to allow the export of steam and electricity from the facility to surrounding business users via dedicated pipelines and private wire cables located along the disused March to Wisbech railway. The pipeline and cables would be located on a raised, steel structure.
- TCC: Located adjacent to the EfW CHP Facility Site, the compound would be used to support the construction of the Proposed Development. The compound would be in place for the duration of construction.
- Access Improvements: includes access improvements on New Bridge Lane (road widening and site access) and Algores Way (relocation of site access 20m to the south).
- Water Connections: A new water main connecting the EfW CHP Facility into the local network will run underground from the EfW CHP Facility Site along New Bridge Lane before crossing underneath the A47 (open cut trenching or horizontal directional drilling (HDD)) to join an existing Anglian Water main. An additional foul sewer connection is required to an existing pumping station operated by Anglian Water located to the northeast of the Algores Way site entrance and into the EfW CHP Facility Site.
- Grid Connection: This comprises a 132kV electrical connection using underground cables. The Grid Connection route begins at the 132kV switching compound in the EfW CHP Facility Site and runs underneath New Bridge Lane, before heading north within the verge of the A47 to the Walsoken Substation on Broadend Road. From this point the cable would be connected underground to the Walsoken DNO Substation.

1.4 Purpose of this document

1.4.1 Two principal factors have led to the production of an Outline LAQMS. These are:

- During pre-application engagement with FDC and KLWN's Environmental Health Officers (EHO), the Applicant proposed to develop a local air quality monitoring network; to be operational 1-year prior to and 4-years post commencement of operations.
- The Applicant has reviewed the Relevant Representations submitted by Interested Parties and is cognisant of local concerns surrounding air quality and health impacts. Whilst the **ES Chapter 6: Air Quality (Volume 6.2) [APP-035]** and **ES Chapter 16: Health (Volume 6.2) [APP-043]** conclude, there are no significant impacts, (a view reflected by the UK Health Security Agency's Relevant Representation **[RR-023])**, the Applicant does believe it to be helpful to develop a local air quality monitoring network and, for transparency, to directly involve the relevant local authorities.

1.4.2 Section 2 of this document presents the proposed Outline LAQMS. A detailed LAQMS will be secured by a DCO Requirement.

2. Outline LAQMS

2.1 General Commitments

2.1.1 In consultation with the relevant planning authorities (CCC and NCC) and FDC and KLWN's Environmental Health Officers, the Applicant will prepare a detailed LAQMS.

2.1.2 The LAQMS will be secured by a DCO Requirement and submitted to the relevant planning authority for approval.

2.1.3 The approved LAQMS will be implemented, and the equipment maintained for the for the duration of the monitoring period.

2.1.4 Data collected by the LAQMS will be issued to the relevant planning authority at regular intervals.

2.2 Monitoring Period

2.2.1 The LAQMS equipment must be installed in the locations set out in the LAQMS and be operational 1-year to prior to the date of final commissioning at the EfW CHP Facility.

2.2.2 The LAQMS equipment will be removed after the fourth anniversary of the date of final commissioning at the EfW CHP Facility.

2.3 Equipment

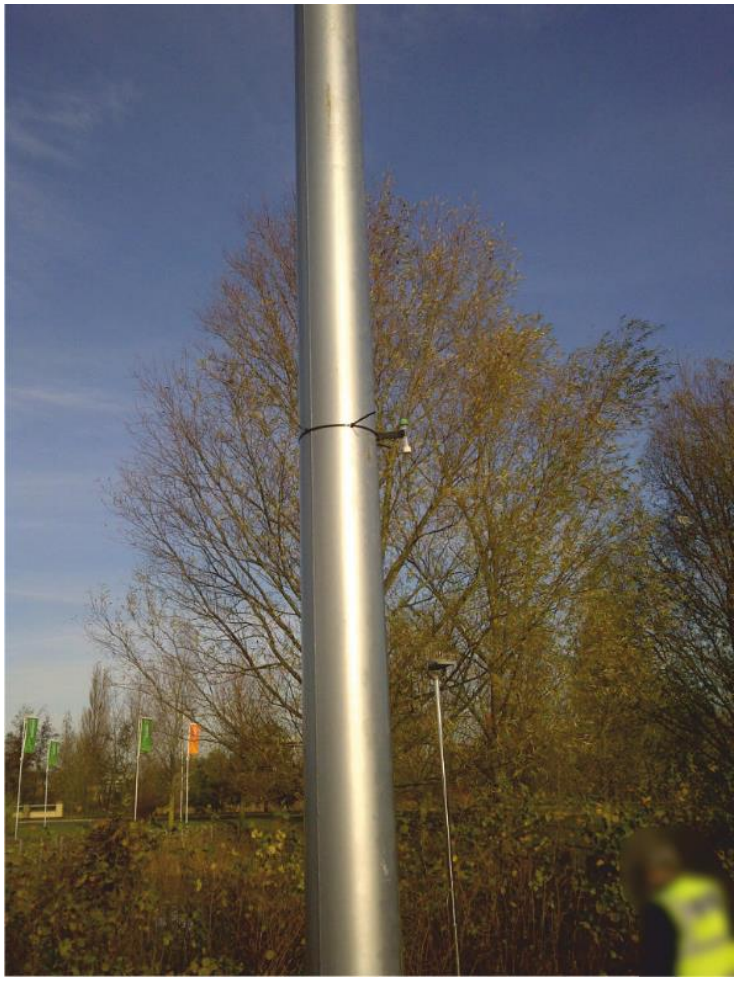
2.3.1 To consist of:

- One automatic continuous monitoring station. The equipment will analyse oxides of nitrogen (NOx), sulphur (SOx) and Particulate Matter (PM) for PM10 and PM2.5. The unit consists of a small Glass Reinforced Plastic (GRP) enclosure to accommodate the equipment. Real-time data access for the relevant local authority and the Applicant will be investigated when selecting the equipment.
- Passive air quality monitoring diffusion tubes. To measure NOx and SOx and sulphur.

2.3.2 Examples of the proposed equipment are presented in **Graphic 2.1**and **Graphic 2.2**.

Graphic 2.1 Example of a continuous monitoring station

Graphic 2.2 Example of a passive air quality monitoring diffusion tube



2.4 Locations for the equipment

Wisbech

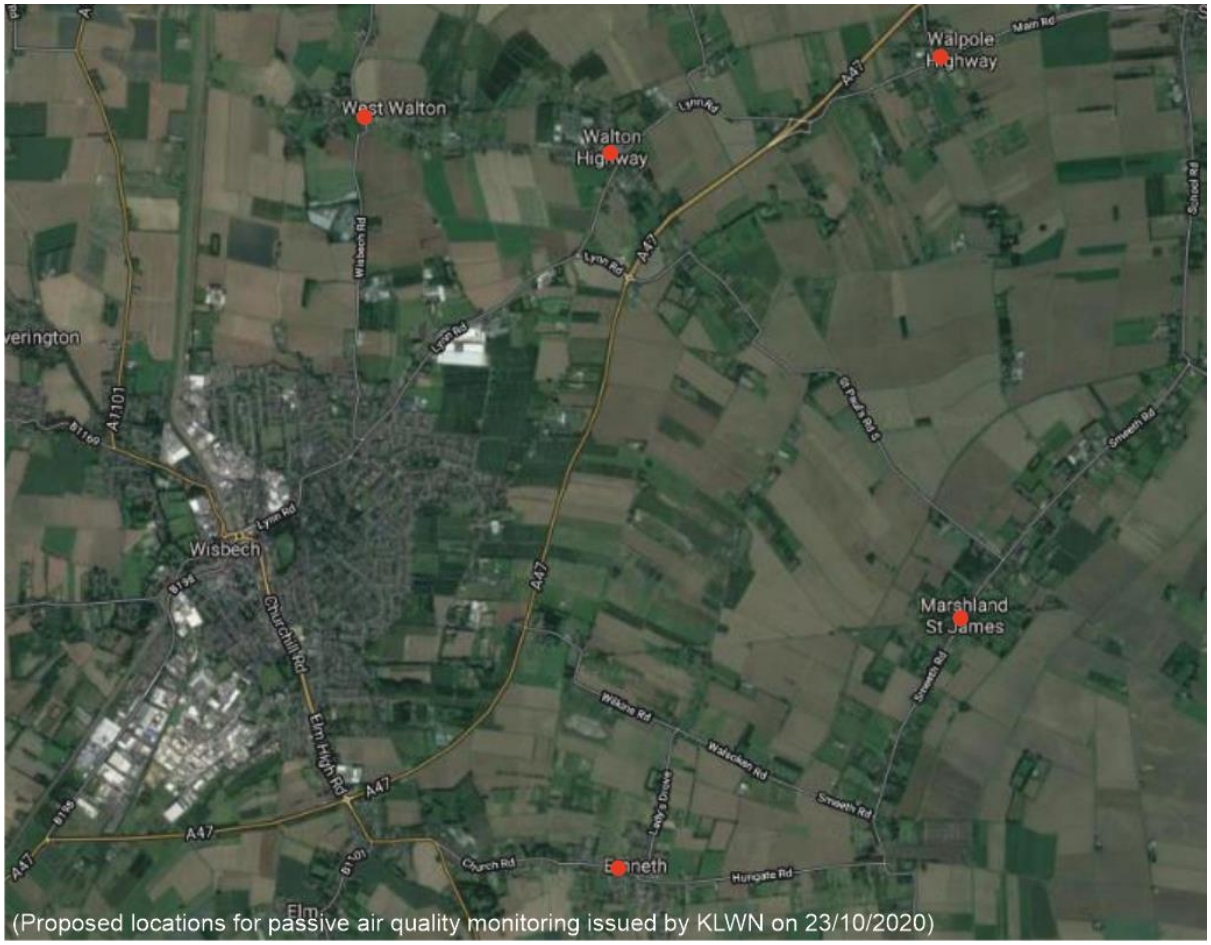
2.4.1 Passive and automatic air quality monitoring will be placed in locations consistent with the air quality survey monitoring locations which were selected to inform the environmental assessment, see **Figure 8.1**, **ES Chapter 8: Air Quality (Volume 6.3) [APP-052]**, (attached as **Appendix A**) or such other locations as may be approved in the final LAQMS.

Villages

2.4.2 Passive air quality monitoring tubes will be located in the following villages:

- Emneth;
- Marshland St James;
- Walpole Highway;
- West Walton and
- Walton Highway.

Graphic 2.3 Villages proposed to be the subject of passive air quality monitoring



2.4.3 The final location for the passive and automatic air quality monitoring equipment will be approved by the relevant planning authority.

Appendix A
Figure 8.1 Air quality survey monitoring locations , ES Chapter 8: Air Quality

545000
546000
547000
309000
308000
N
Key
Order limits
Monitoring locations
Passive
Passive and automatic
0 100 200 300 400 m
Scale at A3: 1:8,000

Client
Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility DCO
Environmental Statement
Chapter 8 - Air Quality
Figure 8.1
Air quality survey monitoring locations
June 2022
wood.
41310-Shr446_v2
H:\Projects\41310 Wisbech\Design_Technical - GI\Drawings\ArcGIS\Workspaces\41310-Shr446_v2.mxd Originator: simon.green2