Medworth EfW CHP Facility Order: SI 2024 No.230





Order Requirement 26 (1) and (2): Air Safety

(part discharge)

January 2025

Revision 2.0 Document ref. CP0_R26

We inspire with energy.



Glossary

Term	Description		
Authorised Development	Means the development described in Schedule 1 (authorised development) and any other development authorised by the Ordowhich is development within the meaning of section 32 (meaning "development") of the 2008 Act.		
(the) Developer	Medworth Combined Heat and Power Limited		
Medworth Combined Heat and Power	The Developer implementing the Medworth EfW CHP Facility Ord		
MVV	The Developer and its parent companies		
(the) Order	The Medworth Energy from Waste Combined Heat and Power Facility Order 2024, Statutory Instrument: 2024 No.230.		
Relevant Planning Authority (RPA)	Means the waste planning authority for the area in which the land to which the provisions of this Order apply is situated.		
Requirement(s)	Means those matters set out in Schedule 2 (requirements) of the Order.		
Work No(s).	Works Number(s) - see Schedule 1 (Authorised Development) of the Medworth EfW CHP Facility Order 2024.		



Acronyms

Acronym	Description	
AOD	Above Ordnance Datum	
APC(r)	Air Pollution Control residues	
СНР	Combined Heat and Power	
DNO	Distribution Network Operator	
EfW	Energy from Waste	
FFL	Finished Floor Level	
MCHP	Medworth Combined Heat and Power	
RPA	Relevant Planning Authority	
тсс	Temporary Construction Compound	



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1. Introduction

1.1 Background

- Medworth CHP Limited (the Developer) has secured a Development Consent Order (the Order)¹ 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, Temporary Construction Compound (TCC), and an acoustic fence, these works are the Authorised Development.
- The Authorised Development will 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 Authorised Development has a generating capacity of over 50 megawatts and the electricity will be exported to the grid. The Authorised Development also has the capability to export steam and electricity to users on the surrounding industrial estate.

1.2 The Developer

- The Developer 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 approximately 6,500 people with assets of around €5 billion and annual sales of around €4.1 billion. The Authorised Development represents an investment of over £450m.
- 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.
- MVV's largest operational project in the UK is the Devonport EfW CHP Facility in Plymouth. Since 2015, this modern and efficient facility has been using up to 275,000 tonnes of municipal, commercial and industrial residual waste per year to generate electricity and heat, notably for His Majesty's Naval Base Devonport in Plymouth, and exporting electricity to the grid.
- 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.
- 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 Statutory Instrument 2024 No. 230 https://www.legislation.gov.uk/uksi/2024/230/schedule/1/made



1.3 The Authorised Development

The Authorised Development comprises the following key components:

- The EfW CHP Facility and Site (Work Nos.1/1A/1B/2A/2B);
- CHP Connection (Work Nos.3/3A/3B);
- Temporary Construction Compound (TCC) (Work No.5);
- Access Improvements (Work Nos.4A/4B);
- Water Connections (Work Nos.6A/6B);
- Grid Connection (Work Nos.7/8/9) and
- Acoustic fence (Work No.10).

A summary description of each Authorised Development component is provided below.

- EfW CHP Facility and 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 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, 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 Authorised 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 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 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.
- Acoustic fence: This comprises of a 3m high acoustic fence fronting a residential property at 10 New Bridge Lane, Wisbech.

1.4 Purpose of this document

- Schedule 2 of the Order requires the Developer to comply with and/or submit detailed information to implement the Authorised Development.
- Requirement 26 (air safety) of Schedule 2 states:
 - "(1) The information specified in sub-paragraph (2), that is required by the Defence Geographic Centre of the Ministry of Defence to chart the authorised development for aviation purposes, must be submitted to the relevant planning authority and the Ministry of Defence before any part of the authorised development is commenced.
 - (2) The information submitted to and approved under sub-paragraph (1) must include—
 - (a) location of the authorised development;
 - (b) date of commencement of construction;
 - (c) anticipated date of completion of construction of tall structures including the chimneys;
 - (d) height above ground level of tall structures including the chimneys;
 - (e) maximum extension height of any construction equipment; and
 - (f) details of aviation warning lighting to be fitted to the tall structures, which must include fitting the chimneys with an infra—red light fitted at the highest practicable point of the structure.
 - (3) The aviation warning lighting details submitted under sub-paragraph (2)(f) must be implemented in full before the construction of the chimneys is complete unless otherwise agreed by the relevant planning authority in consultation with the Ministry of Defence.
 - (4) At the earliest opportunity prior to the date of completion of the construction of the chimneys, the anticipated date of construction completion must be submitted to the relevant planning authority and provided in copy to the Ministry of Defence.
 - (5) All details submitted to and approved under this requirement must be implemented as approved and maintained throughout (to the extent relevant) the construction of the authorised development and the operation of the authorised development unless otherwise agreed by the relevant planning authority in consultation with the Ministry of Defence."
- Section 2 of this document provides the detailed information to discharge the precommencement of development requirements of Requirement 26, namely (1) and (2) and comments on (3) to (5). A further statement to discharge (4) will follow in due course.



2. Pre-commencement details

Table 2.1 lists the obligations of Requirement 26 and provides the Developer's submission to discharge the precommencement of development obligations and provides comments on the others.

Table 2.1: Requirement 26 and the Developer's submission

Obligation	Developer's submission		
(1) The information specified in sub-paragraph (2), that is required by the Defence Geographic Centre of the Ministry of Defence to chart the authorised development for aviation purposes, must be submitted to the relevant planning authority and the Ministry of Defence before any part of the authorised development is commenced	 Relevant Planning Authority – Consents Team, Place and Sustainability, Cambridgeshire County Council, PO Box: 761, ALC2660, Huntingdon, Cambridgeshire, PE29 9QR. Email: nsips@cambridgeshire.gov.uk Ministry of Defence – Issued by email (teena.oulaghan100@mod.gov.uk) to the Defence Geographic Centre of the Ministry of Defence, c/o Teena Oulaghan, Safeguarding Manager, Defence Infrastructure Organisation, Estates, Safeguarding, DIO Head Office, St George's House, DMS Whittington, Lichfield, Staffordshire, WS14 9PY 		
(2) The information submitted to and approved under sub- paragraph (1) must include—	See response to (a) to (f)		
(a) location of the authorised development;	Postal address: Medworth EfW CHP Facility, Algores Way, Wisbech, Cambridgeshire, PE13 2TQ Location of tall structures: see Table 2.2.		
(b) date of commencement of construction;	The anticipated date for the commencement of construction of the Authorised Development is 28 th April 2025. The anticipated date for the commencement of construction at the EfW CHP Facility Site (where the 'tall structures' are located) is 19 th November 2025 (month 0).		



Obliga	tion	Developer's submission		
	(c) anticipated date of completion of construction of tall structures including the chimneys;	See Table 2.2.		
	(d) height above ground level of tall structures including the chimneys;	Details provided in Table 2.2. Note: The height above ground level i.e., Finished Floor Level (FFL) of the tallest structures		
		(over 50m from FFL) are located within the at the EfW CHP Facility Site, see Appendix A .		
		FFL at the EfW CHP Facility Site is 3.0m Above Ordnance Datum (AOD).		
		The maximum extension height of any construction equipment is 133m AOD.		
	(e) maximum extension height of any construction equipment; and	There will be a normal tower crane for civils at 55m AOD erected in month 7 (June 2026) and the 133m extension cranes in months 17 (April 2027) and 19 (June 2027).		
		Note: Construction equipment extending over 50m AOD i.e. cranes, will be fitted with appropriate aviation warning light(s).		
	(f) details of aviation warning lighting to be fitted to the tall structures, which must include fitting the chimneys with an infra—red light fitted at the highest practicable point of the structure.	See Appendix B . Infra-red warning lights of the type shown or similar MOD approved units will be fitted to the chimneys. Exact details of the lights used will be provided on completion of detail design and prior to installation.		
paragra of the o	e aviation warning lighting details submitted under sub- aph (2)(f) must be implemented in full before the construction chimneys is complete unless otherwise agreed by the relevant ag authority in consultation with the Ministry of Defence.	The Developer notes this requirement.		
	the earliest opportunity prior to the date of completion of the action of the chimneys, the anticipated date of construction	To be confirmed in due course by the Developer.		



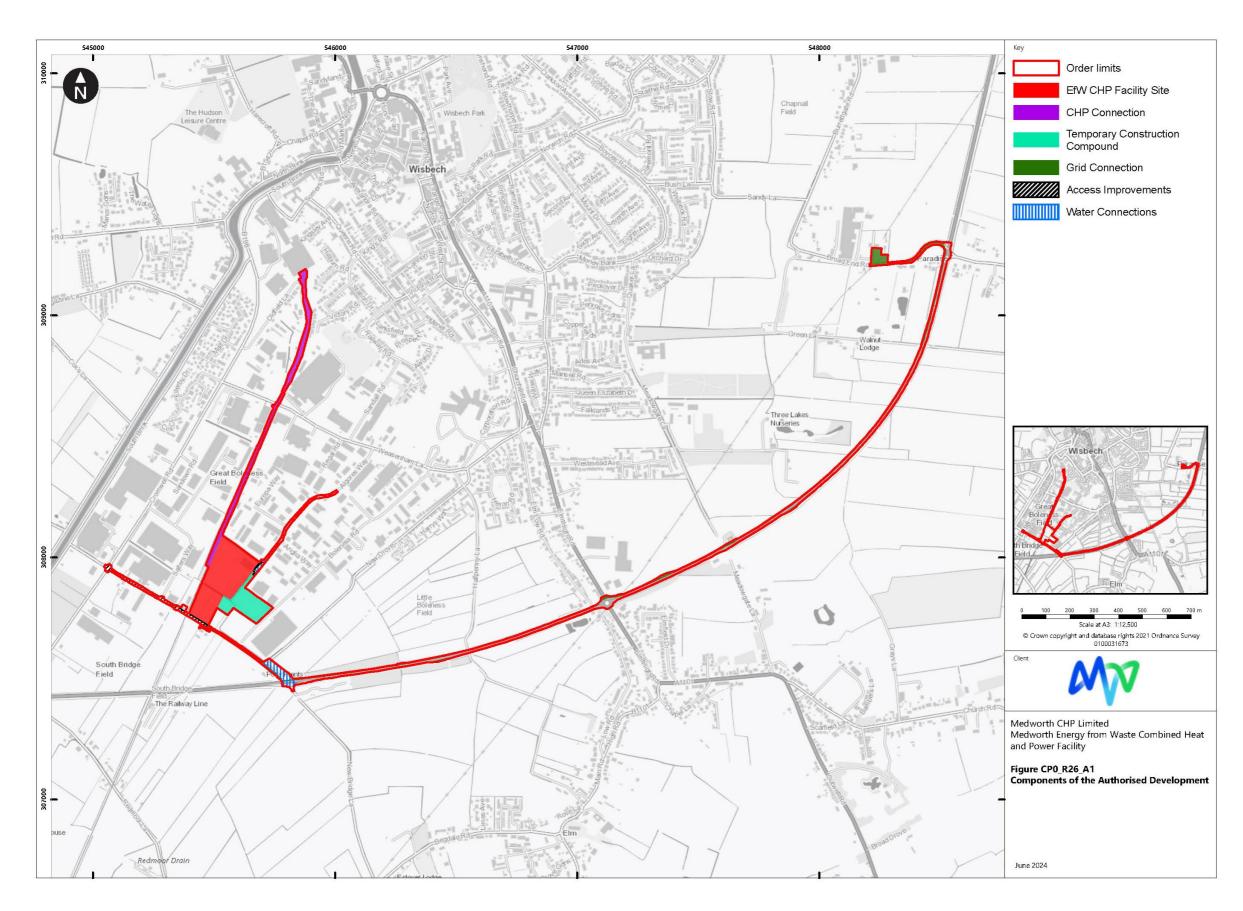
Obligation	Developer's submission
completion must be submitted to the relevant planning authority and provided in copy to the Ministry of Defence.	
(5) All details submitted to and approved under this requirement must be implemented as approved and maintained throughout (to the extent relevant) the construction of the authorised development and the operation of the authorised development unless otherwise agreed by the relevant planning authority in consultation with the Ministry of Defence.	The Developer notes this requirement.

Table 2.2: Details for tall structures including chimneys over 50m high

Tall Structure	National Grid Reference	Latitude, Longitude (degs, mins, secs):	What3words	Height above FFL	FFL (AOD)	Anticipated date of completion of construction
Chimney 1	545495 307893	52°38′57″N 000°08′57″E	frames.pioneered.humid	84m	3.0m	September 2027
Chimney 2	545499 307889	52°38′57″N 000°08′57″E	unimpeded.below.brains	84m	3.0m	September 2027
Boiler house	545556 307943	52°38′59″N 000°09′01″E	siesta.crackles.exist	52m	3.0m	January 2028

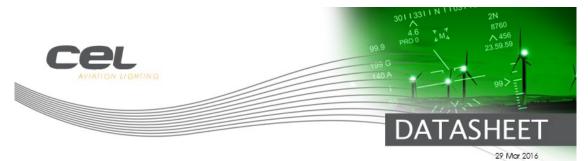


Appendix A Location and components of the Authorised Development





Appendix B Details of the aviation warning lights



24V_{DC} MOD compatible IR (Infrared) Obstruction Light

CEL-IR850-24-CST - LED Aircraft Warning Light

Application

Night vision goggles compatible 850nm infrared obstruction light for wind turbines and other vertical structures that cause aviation safeguarding concerns

Key features

- Based on LED technology
- Extremely reliable
- Very long life time - Low power consumption
- 24VDC operating voltage
- Stabilised light output
- Easy to install
- Mounting set and terminal box included

Benefits

- Long maintenance intervals
- Low energy costs
- Input power voltage variations do not affect to light output
- Very low lifetime costs

Specification met

MOD Obstruction Lighting Guidance, Low Flying Operations Sqn (MOD CAS-AS LFOS) - 21 Nov 2014

- Radiometric characteristics IR -Typical intensity 300mW/sr, Peak 600mW/sr
- Colour Infrared 850nm
- Horizontal radiation pattern 360°
- Vertical radiation pattern -15' ... +30'
- Current for the LEDs is stabilised by constant current
- Expected lifetime without light output falling 25% >100,000hrs

Electrical characteristics

- LEDs are in several separate groups
- Nominal operating voltage 24V_{DC}
- Operating voltage range 22 ... 28V_{DC}
 Power consumption 15W (<0.6A constant current)
- Average power consumption with 60fpm, 250ms
- flashing mode <3.8W

Made in EU



Mechanical characteristics

- Black anodised aluminium light unit body
- Galvanised mounting arm
- Acid proof U-bolts and hex nuts
- Uncoloured glass cover
- Degree of protection IP65
- Operating temperature range -55 ... +55°C
- Height 170mm, diameter 140mm
 Total weight with mounting set 3.2kg
- 5 year warranty

Order Code: CEL-IR850-24-CST

- CSW-24-16-GPS, flash controller and fault monitoring unit with GPS-synchronisation



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