

CONTENTS

4.0	EXISTING SITE CONDITIONS.....	4-1
4.1	Introduction	4-1
4.2	Description of the Site	4-1
4.3	The Surrounding Area	4-3
4.4	The Consented Development.....	4-3
4.5	References	4-6

PLATES

Plate 4.1	Tipping Hall Construction Area, Consented Development Construction Works (April 2022)
Plate 4.2	Exit Ramp Concrete Works, Consented Development Construction Works (March 2022)
Plate 4.3	Feed Hopper Openings, Consented Development Construction Works (March 2022)

FIGURES

(Refer to PEI Report Volume 2)

Figure 4.1	Aerial Photo of Site (April 2022)
Figure 4.2	Site Setting (Aerial)
Figure 4.3	Residential Receptors
Figure 4.4	Environmental Receptors

4.0 EXISTING SITE CONDITIONS

4.1 Introduction

- 4.1.1 This chapter of the Preliminary Environmental Information Report (PEI Report) presents a description of the existing site (refer to Figure 4.1 in PEI Report Volume 2) and the Consented Development).

4.2 Description of the Site

The Site

- 4.2.1 The Proposed Project Site (the 'Site') is broadly located within the existing Slough Heat and Power Site, which is situated within the Slough Trading Estate, a major employment area within Slough. Figure 1.1 within PEI Report Volume 2 illustrates the location of the Site.
- 4.2.2 The National Grid Reference of the centre of the Site is SU 953 814. The topography at the Site is predominately flat and approximately 32m above ordnance datum (AOD).
- 4.2.3 The Site is broadly the same as the site for the Consented Development, albeit it includes Cooling Tower 8 to the north of Edinburgh Avenue. Cooling Tower 8 and its associated pumps will be utilised by the Consented Development and the Proposed Project. This is the same as for the Consented Development, but with the difference that it will now be solely connected to and utilised by the Proposed Project rather than operated as shared infrastructure (to other energy generating activities on the SHP site). The Proposed Project will not result in any change to the Consented Development building envelope and architecture, currently under construction, for the Consented Development, other than the single external pipe described earlier. No physical works will take place to Cooling Tower 8, but it will be solely dedicated to the Consented Development and Proposed Project.
- 4.2.4 The Site, located both to the north and south of Edinburgh Avenue, previously contained impermeable hardstanding and numerous buildings and structures including boiler houses, turbine halls, fuel storage facilities, switch rooms, control rooms, offices and various other ancillary plant associated with power generation. These decommissioned plant and buildings have been cleared in advance of construction work starting on the Consented Development which commenced in May 2021 (by the Engineering, Procurement and Construction (EPC) works contractor Hitachi Zosen Inova (HZI)) and is now underway with completion expected in early 2024.
- 4.2.5 Slough Heat and Power (SHP) Plant, which is the wider site within which the Consented Development and Proposed Project are situated, provides various services to businesses on the Slough Trading Estate, including electricity

distribution and distribution and supply of heat and potable water. It also includes other ancillary services such as water treatment, operations and maintenance, and cooling water.

- 4.2.6 The SHP Plant is designed, operated, and permitted in accordance with the Waste Incineration Directive (WID), now transposed into the Industrial Emissions Directive (IED) (Special Provisions for Waste Incineration Plants and Waste Co-Incineration Plants) (2010/75/EU) (Ref 16), and operates independently with a separate fuel store and deliveries.
- 4.2.7 Together with the Consented Development and the Proposed Project, those SHP facilities will continue to retain separately metered output and discrete points of connection to the local electricity network.
- 4.2.8 The main large structures remaining within the SHP site currently comprise the Boiler 17 plant and equipment which is 30m high along with its associated 104m high north stack located adjacent to Edinburgh Avenue. The two cooling towers, one of which is within the Site boundary for the Proposed Project (CT8), are located to the north of Edinburgh Avenue and are approximately 49m high. Other buildings include an office, electrical switch rooms, a turbine hall, a package boiler and associated stack and a large fuel shed. These are being retained and are not part of the current demolition works.

Site Access

- 4.2.9 A number of existing vehicular access to the SHP site will continue to be used for the Proposed Project (refer to Figure 2.4 in PEI Report Volume 2) and are as follows:
 - 1. The main HGV access point in the northwest of the Site which will have lockable gates and a barrier;
 - 2. Access off Greenock Road, to the south of the Site;
 - 3. Car access off Harwich Road located immediately to the south of the package boiler in the southeast corner of the SHP site;
 - 4. Car access via 342 Edinburgh Avenue to the staff car park;
 - 5. The HGV exit to Edinburgh Avenue in the northeast of the Site. This will have an auto-activated gate; and
 - 6. A manually operated gate to access the Cooling Tower compound for either small lorries or pedestrians located mid-point between the two towers along Edinburgh Avenue.
- 4.2.10 There are further access/egress points, including pedestrian access, on the SHP site, however these are not relevant to the Proposed Project and hence are not discussed further.

4.3 The Surrounding Area

- 4.3.1 The Proposed Project is located within the administrative area of Slough Borough Council. The Site has a history of power generation on the Slough Trading Estate (342 Edinburgh Avenue, Slough, SL1 4TU) (refer to Figure 1.1, Figure 4.1 and Figure 4.2 in PEI Report Volume 2).
- 4.3.2 The Site, which is predominantly flat and approximately 32m above ordnance datum (AOD), lies within the Thames Valley, approximately 4km north of the River Thames and is surrounded by the conurbation of Slough. Windsor is approximately 5km south of the Site and Maidenhead is approximately 7km west of the Site.
- 4.3.3 The area surrounding the Site is occupied by various industrial, warehouse and retail businesses, both large and small, typical of much of the Slough Trading Estate, which covers an area of approximately 158ha. The nearest of these commercial receptors is an industrial unit located 30m north and west of the Site on the northern side of Edinburgh Avenue. An industrial warehouse unit is located approximately 50m south of the SHP site boundary (refer to Figure 4.1 in PEI Report Volume 2 for Site Boundary) and a confectionary factory, which is located directly across Fairlie Road, west of the SHP site boundary.
- 4.3.4 The nearest residential properties are located approximately 180m north of the site on Bodmin Avenue, with the nearest park and green space area, Kennedy Park, situated approximately 400m northwest of the Site (refer to Figure 4.3 in PEI Report Volume 2).

4.4 The Consented Development

- 4.4.1 The Consented Development comprises the demolition of redundant plant and buildings on the Site and the construction and operation of the Slough Multifuel Facility. The Consented Development is currently under construction and, as consented, will comprise an enclosed tipping hall and fuel storage bunker, a Turbine hall, a Boiler house, a Flue Gas Treatment (FGT) plant and Ash handling facilities. Plate 2.1 (Refer to PEI Report Chapter 2) illustrates a 3D model of the Consented Development as constructed with key features identified.
- 4.4.2 The Consented Development will also utilise a refurbished Cooling Tower 8 to the north of Edinburgh Avenue. Cooling Tower 8 and associated pumps will, under the Proposed Project, become dedicated to the Slough Multifuel Facility, whereas in the Consented Development it was assumed that this cooling tower would be a shared facility with other generating facilities on the Slough Heat and Power site.
- 4.4.3 The Consented Development will provide a multifuel generating station that will convert Waste Derived Fuel (WDF) into low carbon electricity and heat, with a design capacity of up to 400,000 tonnes per annum of WDF, and a maximum capacity of 480,000 tonnes based upon operating twenty-four hours per day, seven days per week with periodic offline periods for maintenance.

- 4.4.4 The Consented Development has a granted generation capacity of up to 50MWe; the Proposed Project will increase the generation capacity to up to 60MWe.

Consented Development – Construction Programme

- 4.4.5 The construction work is being undertaken by the Engineering, Procurement and Construction (EPC) contractor Hitachi Zosen Inova (HZI). Following completion of the demolition works and enabling works, the main construction work began in May 2021 and are expected to be complete in early 2024.



Plate 4.1 – Tipping Hall Construction Area, Consented Development Construction Works (April 2022)

- 4.4.6 In terms of the construction of the Consented Development, the following represent the key milestones and programme dates:
- 8th December 2020 – Financial close;
 - Q1 2021 – Main site setup with construction works commencing early May 2021;
 - Q3 2021 – Slipform construction of concrete bunker (completed);
 - Q2 2022 – Steelworks become visible above ground;
 - Q4 2022 – Turbine and reactor delivery and installation;
 - Q1 2024 – First steam blows as part of commissioning works;
 - Q2 2024 – First fuel delivery to site; and
 - Q4 2024 – Project handover to operations.

- 4.4.7 To facilitate the construction phase of the Consented Development a dedicated offsite parking facility with 120 spaces has been provided for construction workers located at Whitby Road railway siding. A bus facility operates between the car park and site. There is also a parking facility for 25 cars at 689 Stirling Road and a space for offloading mini buses safely. This Stirling Road facility will be used for the Proposed Project construction phase which is intended to run parallel to that of the Consented Development.



Plate 4.2 – Exit Ramp Concrete Works, Consented Development Construction Works (March 2022)



Plate 4.3 – Feed Hopper Openings Consented Development Construction Works (March 2022)

4.5 References

Environmental permitting guidance: The Waste Incineration Directive (2010) (publishing.service.gov.uk)

Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (legislation.gov.uk)