

CONSTRUCTION METHOD STATEMENT HYDROGEN PRODUCTION FACILITY

WESTERN BIO-ENERGY PLANT | MARGAM | PORT TALBOT



PREPARED BY



PREPARED FOR



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1. INTRODUCTION

1.1 INTRODUCTION

1.1.1 This Construction Method Statement (CMS) has been prepared by Sirius Planning on behalf of Western Bio-Energy Limited (WBE) as the Applicant and Protium Green Supply Limited (PGS Ltd.) as the Agent, in support of a planning application for the following development (collectively referred to as the Proposed Development) located at the existing Western Wood Biomass Energy Plant, Margam, Port Talbot:

- An Electrolytic Hydrogen Production Facility (HPF) and associated compression and storage;
- A Hydrogen Tube-Trailer Filling Station (HTTFS); and
- Renewable electricity provided from a co-located biomass power plant via private wire.

1.1.2 This CMS will be monitored regularly throughout the duration of the construction works to ensure it can be adapted as may be necessary, and that ensures best practice is followed.

1.2 BACKGROUND

1.2.1 The application site shown bordered red on Drawing No. **PRO1000/01/01** (the Site) is located within the Western Biomass Energy Plant operated by Western Bio-Energy Ltd (WBE) located off Heolcae'r Bont, Margam, Port Talbot, SA13 2NR.

1.2.2 The Proposed Development will be located along the northern border of the wider WBE Power Plant ('the Biomass Plant') site on an area that comprises an existing flat hardstanding which is proposed to be extended to include the perimeter banking in order to accommodate the Proposed Development.

1.2.3 The Biomass Plant generates renewable energy through the process of combustion of waste / reclaimed wood and wood chips. The Biomass Plant has an export capacity of 14.74MW, 10MW of which is available to off-takers, and has a negative carbon footprint. Protium, in agreement with WBE, will offtake approximately 3MW of electricity from the Biomass Plant for the proposed HPF via a private wire connection.

1.2.4 The Proposed Development will produce up to 960 kgs of green hydrogen per day, which will be trailered offsite to regional customers. It is estimated that the system will abate approximately 3,000 tonnes of CO₂ per year whilst also reducing tail-pipe emissions from conventional vehicles. The Proposed Development supports both Neath Port Talbot County Borough Council's and the Welsh Government's net zero targets.

1.2.5 Drawing No. **PRO1000/01/01** illustrates the site location and Drawing No. **PRO1000/01/03** shows the proposed site layout.



2. CONSTRUCTION METHOD STATEMENT

2.1 INTRODUCTION

- 2.1.1 The CMS sets out the processes to manage the construction of the Proposed Development, including health and safety requirements and project roles and responsibilities.
- 2.1.2 Required details as set out in the Highways consultee response dated 13th June 2024 have been provided in bold black text headings with a response underneath.

2.2 OVERVIEW OF CONSTRUCTION WORKS

- 2.2.1 The main construction element for the Proposed Development is the concrete extension pad covering an area of 340m². A retaining wall along the northern boundary will be constructed to retain the extension area. Indicative section details are provided on Drawing No. **PRO1000/02/06** with details to be finalised at the detailed design stage.
- 2.2.2 The existing hardstanding along the northern boundary of the WBE site, where the Proposed Development will be located, will be the temporary construction compound during the construction phase.
- 2.2.3 The main construction activities include the following:
- Delivery of construction equipment to site
 - Delivery of consumables to site
 - Fencing off construction area
 - Movement of plant and machinery
 - Excavation of foundations
 - Excavation of trenches for cable route
 - Construction of pad extension and retaining wall
 - Installation of cabling
 - Construction and installation of site drainage
 - Delivery and installation of electrical equipment
 - Planting / landscaping.
- 2.2.4 Following appointment of contractors, construction of the Proposed Development will follow a defined project programme essentially to meet the shortest timescale for completion of the project taking account of planning conditions and relevant health, safety and environmental considerations.

Construction Hours

- 2.2.5 Construction work will be subject to working hours restrictions and will only take place between the hours of 07:30 – 19:30 Monday to Friday inclusive, 07:30 – 16:00 hours on Saturdays with no construction work on a Sunday or Bank Holiday. Outside the above noted hours, construction work at the Site will be limited to safety and environmental works that may be necessary.
- 2.2.6 It should be noted that the Biomass Plant operates twenty-four hours, seven days a week.

2.3 SAFETY

- 2.3.1 An appointed Site Manager will have the responsibility of applying all Health and Safety requirements on site. Duties will typically include providing a daily update to a Health and Safety Board identifying potential hazards. All visitors to site will be required to sign in and adhere to on-site Health and Safety practices. All personnel working on site will be required to wear the appropriate Personal Protective Equipment (PPE) including a high visibility vest or jacket, steel toe cap boots, and a hard hat as well as any other activity-specific safety wear.

2.4 TRAFFIC AND TRANSPORT

- 2.4.1 A Transport Statement has been prepared and accompanies the planning application submission.
- 2.4.2 Initially the Proposed Development will utilise the existing Biomass Plant access point to the east of the HPF and HTTFs Compound. This existing Biomass Plant access has suitable visibility splays and entrance radii for HGV's.
- 2.4.3 Vehicles accessing the Site, during both the construction and operational phases, will approach from the M4. Taking exit 38 (the Margam Interchange), vehicles will proceed in a westerly direction along Heolcae'r Bont, to the Biomass Plant access road. Heolcae'r Bont is a two-way road which is well lit with street lighting and pedestrian pavement along the northern side of the road. Vehicles will then turn right onto the WBE private access road (Longland Lane) before proceeding for approximately 100m and turning left into the Biomass Plant. Vehicles will exit the Site taking the route in reverse.
- 2.4.4 Once the PDR associated with the Biomass Plant has been adopted, vehicles will only access the Site via the PDR as per the Biomass Plant planning permission P2014/1013. Timescales for adoption of the PDR are currently unknown.
- 2.4.5 Once on the Biomass Plant, there is an existing internal one-way system in place. HTTs will circulate the Site in a clockwise direction, following the internal one-way system and reverse into the hydrogen refuelling bays to be refilled. Once filled, the HTTs will leave in a forward gear to the Biomass Plant entry/exit gates. A Swept Path Analysis illustrating internal traffic movements is presented on Drawing No. **PRO1000/02/05**.

(i) the parking of vehicles of site operatives and visitors

- 2.4.6 The wider Biomass Plant site has the following existing car parking areas:
- 7 marked parking spaces (including one disabled) adjacent to Longland Lane
 - 6 un-marked parking spaces adjacent to Longland Lane
 - 8 marked parking spaces (including one disabled) adjacent to the office at the north of the site
 - Approximately 10 un-marked parking spaces along the southern site boundary
 - A total of 31 spaces.
- 2.4.7 The existing parking on site operates well within capacity as demonstrated in the Transport Statement with a minimum of 6 car parking spaces remaining free.
- 2.4.8 During construction, 5 staff vehicles are envisaged each day and once fully operational two technicians and one supervisor will operate and maintain the Proposed Development.
- 2.4.9 Site operatives during both the construction and operational phases for the Proposed Development will use these existing car parking spaces which is considered to be sufficient for the number of operatives required.
- 2.4.10 There will be no parking on the local highway network.

2.5 STORAGE DURING CONSTRUCTION

- 2.5.1 The temporary construction compound, which will be the existing hardstanding along the northern boundary of the WBE site, will be the designated storage area.

(ii) loading and unloading of plant and materials

- 2.5.2 Within the Site, delivery vehicles will travel along the existing one-way internal access to the temporary construction compound / lay-down area where materials will be unloaded and loaded. The construction compound and existing internal access tracks provide sufficient space to facilitate vehicle manoeuvring.

2.5.3 Access for plant and machinery during construction works may potentially be required around the back of the existing WBE office block, therefore a strip of scrub and trees may potentially be removed / any overhang pruned in this area. However, the probability of tree felling for T1 and G1 (see Tree Report at **Appendix B**) is low and this will be confirmed prior to the commencement of the Proposed Development.

2.5.4 The plant and equipment will be delivered to the Site in a range of vehicles, primarily flatbed lorries. The containers will be lifted onto the extended concrete pad by crane and secured.

(iii) storage of plant and materials used in constructing the Proposed Development

2.5.5 The plant and materials used during the construction phase will be stored within the temporary construction compound within the WBE site. Storage of construction materials will be as per best practice guidance to minimise any potential dust impacts.

(iv) the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate

2.5.6 During construction, the application Site will be fenced off along the northern boundary to prevent any adverse impacts to the woodland and any protected species.

2.5.7 Once operational, the HPF and HTTFS Compound will be secured by a 2.5m high concrete firewall along the northern and western boundaries and a 2m high paladin security fence along the eastern and southern boundary excluding the HTTFS bays.

2.6 DUST AND DIRT PREVENTION

(v) wheel washing facilities

2.6.1 The WBE site does not have a wheel-wash as all surfaces are metalled, not withstanding, should there be a need to provide temporary cleaning facilities during the construction phase, a mobile power washer would be provided.

(vi) measures to control the emission of dust and dirt during construction

Dust Mitigation Measures

2.6.2 Possible impacts from dust will only occur during the relatively short construction phase. It is acknowledged that dust may be generated mainly under the following circumstances, however the degree to which these circumstances arise will depend upon the stage of the works and the coincident time of year and prevailing weather.

- **Inappropriate storage of construction materials/powders;**
- Transfer of soil and other materials onto impermeable or semi-permeable surfaces (e.g. roads) which then dry out and become airborne by wind and moving vehicles; and
- Cutting of building materials (e.g. concrete blocks).

2.6.3 Measures outlined below are proposed to ensure the adequate mitigation procedures are in place for dust during the short temporary construction phase.

- Sheeting of vehicles transporting materials to and from site;
- Ensuring that any stored soil materials set aside for re-use is covered to prevent wind erosion;
- Ensuring that construction materials are stored in the appropriate manner in accordance with the manufacturer's recommendations and in line with good practice. Powders and fine material will be stored in drums or containers that can be sealed;
- During construction, browsers will spray water onto site tracks and other areas during dry and

/ or windy periods to keep site dust to a minimum.

Preventing Mud on the Highway

- 2.6.4 The degree of dirt / mud during construction will be dependent on the time of year, the prevailing weather during the construction period and the type of construction activities (e.g. muck shifting). In wet weather greater attention will be paid to vehicle cleaning to ensure significant quantities of mud are not trafficked onto local roads, which once dry can become a significant source of dust.
- 2.6.5 The existing internal one-way system access roads within the Biomass Plant site will be utilised for the Proposed Development.
- 2.6.6 The public highway local to the site (Heolcar'r Bont) and WBE's private access road (Longland Lane) will be actively monitored during construction and cleaned as required by the use of a Laker type brush, with particular attention paid during the construction of the pad extension area which is likely to be the activity to cause mud and debris to be deposited on the highway.

2.7 WASTE

(viii) a scheme for recycling/disposing of waste resulting from demolition and construction works

- 2.7.1 The reduction of waste and the recycling of waste materials is a key environmental consideration during the construction phase. Materials such as packaging, plastic, metal, residual waste will be segregated and collected from site by a permitted waste management operator. Any waste accepted by the on-site Biomass Facility will be kept on site and processed.
- 2.7.2 The waste management hierarchy prescribes the most sustainable approach to resource management:
- Prevention and Minimisation – Reduce the amount of waste generated at each stage of the project;
 - Reuse of Waste – Maximising reuse of waste generated on site. This will reduce the quantities of waste transported from site;
 - Recycling of Waste – Segregating materials for collection and off-site management.
- 2.7.3 The following measures will be implemented to minimise waste generation during the construction phase:
- Ordering of materials will be on an 'as needed' basis to prevent over-supply and a requirement for take back for surplus stock with suppliers;
 - Use of materials pre-cut to length to avoid surplus waste generated on site;
 - Use of suppliers that use the least amount of packaging on purchase products;
 - Correct storage and handling of goods to avoid damage resulting in unnecessary disposal and resupply;
 - Ensuring correct sequencing of operations; and
 - Use of reclaimed / recycling materials in the construction works wherever possible.

2.8 LOCAL COMMUNITY RESPONSIBILITY

- 2.8.1 The Site Manager will manage and co-ordinate on-site environmental activities and act as a point of contact for local residents and adjoining landowners. Effective liaison between the Site Manager and local residents will seek to ensure that any concerns are resolved quickly and efficiently.
- 2.8.2 The Site Manager will be responsible for communicating the Construction Method Statement to construction staff; fulfilling environmental obligations on site; attending to any on-site environmental incidents or concerns; reporting and monitoring any environmental incidents; and ensuring waste management procedures are followed.



3. CONCLUSIONS

- 3.1.1 The purpose of this Construction Method Statement is to demonstrate the scope of measures that could be put in place during the construction phase to adequately protect the identified environmental resources and sensitive receptors, (including human receptors).
- 3.1.2 The Proposed Development shall be carried out in accordance with the approved CMS and contractual arrangements.

