

P23_1307_LOO2v1_PL_LDS_RL_CC

22 August 2023

Planning Department
Gravesham Borough Council
Civic Centre
Gravesend
DA12 1AU

Dear Sir/Madam,

Re: Town & Country Planning (Environmental Impact Assessment) Regulations 2017: Request for Screening Opinion in Relation to land at Kimberly-Clark Northfleet mill, Northfleet – Construction of a Green Hydrogen Electrolyser and associated infrastructure.

I write, on behalf of HYRO Energy Ltd., with regard to the site described above to request a screening opinion under Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, to determine whether the production of an Environmental Statement is required.

Included with this request is a plan sufficient to identify the location of the site, plans illustrating the scheme proposals, a brief description of the nature and purpose of the development and of its possible effects on the environment as required under this Regulation.

Following this request, it is required under sub-paragraph 6 of Regulation 6 that the Council adopt a screening opinion within 3 weeks beginning with the date of receipt of this request made, or a longer period not exceeding 90 days, as may be agreed in writing with the person making the request, and therefore we look forward to receiving your response within this timeframe.

The Site

The site is located on the southern bank of the River Thames, within the development limits of Northfleet

The site comprises brownfield land.

The site is located predominantly within Flood Zone 2, however, areas toward the north of the site could fall into Flood Zone 3.

There are no listed buildings within or immediately adjacent to the site. It is however noted that there are some assets to the west of the site, namely the Northfleet Tower Lighthouse and Bevan's War Memorial in Northfleet Cement Works.

The location of the site is illustrated on the enclosed and comprises of 2.2 hectares.

The Development

The proposed Green Hydrogen Electrolyser will consist of four containerized electrolyzers (using Proton Exchange Membrane (PEM) technology) rated at 20MWe.

Electrolyzers are the primary component of green hydrogen production and comprise of several 'cells' which comprise two electrodes, one positively charged anode and one negatively charged cathode. The two electrodes are separated by an electrolyte, in this case a polymer (PEM). The electrolyte is responsible for transporting the electrical charge between electrodes, whereby hydrogen and oxygen are produced. The oxygen is then either vented into the atmosphere or captured and stored for commercial use.

The electrolyzers incorporate water treatment plant, transformers and AC/DC rectifiers.

The water required for electrolysis needs to be cleaned and deionised during treatment regardless of its source to prevent damage to the equipment.

Additionally, the associated infrastructure will include four storage tanks with two compressors. Compressors are used to regulate hydrogen pressure for storage purposes.

The proposals will also include a new onsite 33kV DNO substation.

The boiler house within the paper mill will be connected to the GHE by a new onsite hydrogen pipeline with gas regulators. The pipeline follows a logical southern direction toward the paper mill, which the submitted Site Location Plan accounts for.

This development will fundamentally allow Kimberly Clark to decarbonise their operations at the Northfleet mill. The GHE being powered by green electricity itself will also aid this transition to carbon neutrality.

Furthermore, by installing a GHE at the Northfleet mill, Kimberly Clark are ensuring that their business will be resilient to rising energy costs and contribute to their own energy security. In turn, the business will be able to reinvest their saving on energy costs back into the business.

By using Green Hydrogen in place of gas for their industrial process, Kimberly Clark will be setting a standard across businesses in Northfleet, across England and the UK for using hydrogen as a sustainable and secure energy source.

EIA Requirement

Within the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, Schedule 1 identifies those types of development for which Environmental Impact Assessment is mandatory. The proposed development is not described within Schedule 1, and it is therefore considered that the proposal does not comprise Schedule 1 development.

It is acknowledged that the Green Hydrogen Electrolyser (and associated works, such as the substation) falls under Schedule 2, as the proposed development will produce electricity, steam and hot water due to the nature of the electrolyser.

Schedule 2 development need not necessarily comprise EIA Development. The determining factor in any consideration of the need for EIA of Schedule 2 development is the likelihood of significant effects. To aid the decision maker in coming to a conclusion, paragraph 4 of Regulation 5 requires that, where a decision-maker has to decide whether Schedule 2 development is EIA development, they must take into account information provided by the applicant, the results of any other environmental assessment available to the decision maker and the relevant criteria set out in Schedule 3 'Selection criteria for screening Schedule 2 development'.

Relevant considerations include the 'characteristics of development' (its size, cumulative effects, use of natural resources, emissions/wastes and accident risks), the 'location of development' (including the existing land use, capacity of local natural resources, and absorption capacity of the surrounding natural environment), the 'characteristics of the potential impact', having regard in particular to extent, magnitude/complexity, probability, duration, frequency and reversibility and also 'the possibility of effectively reducing the impact' (i.e. through mitigation either inherent in the design process, or provided as an additional element of the proposal).

Planning Practice Guidance 'Environmental Impact Assessment' (last updated 13.05.2020), hereafter referred to as the "online guidance", forms part of the online based planning resource produced by the Department for Communities and Local Government. This online guidance provides advice regarding whether a Schedule 2 development should be considered to be an EIA development. This states that ***'to aid local planning authorities to determine whether a project is likely to have significant environmental effects, a set of indicative thresholds and criteria have been produced...The table also gives an indication of the types of impact that are most likely to be significant for particular types of development.'*** These thresholds are set out in an annexe to the online guidance titled 'Indicative Screening Thresholds'.

In the case of Section 3 (a) Industrial installations for the production of electricity, steam and hot water, the 'Indicative criteria and threshold' is ***'Thermal output of more than 50 MW. Small stations using novel forms of generation should be considered carefully'***. As the proposed development is for a Green Hydrogen Electrolyser with an expected electrical input of 20MW, it is not considered this 'Indicative criteria and threshold' is applicable in this instance.

However, the online guidance also identifies 'Key issues to consider' when screening developments in Section 3 (a) Industrial installations for the production of electricity, steam and hot water, which are: ***'Level of emissions to air, arrangements for the transport of fuel and any visual impact'***. Each of these energy specific matters, and the relevant generic screening criteria set out in Schedule 3, are addressed in turn below with regard to the proposed development: It is important to note that the online guidance also states that 'only a very small proportion of Schedule 2 development will require an assessment (EIA).'

Level of Emissions to Air

With Green Hydrogen Electrolysers, the only emissions to the air are water vapour. No significant effects would therefore arise in relation to this matter.

Arrangements for the Transport of Fuel

With Green Hydrogen Electrolysers, there are no requirements for any fuel to be delivered to the site as part of the operation of the development. No significant effects would therefore arise in relation to this matter.

Visual Impact

It is an inevitable consequence of Green Hydrogen Electrolyser development that there will be some visibility of the development from the surrounding local area. In this regard it is proposed that a Hard and Soft Landscaping Plan for the development shall be submitted as part of the planning application. It is not considered however, that in the context of the site and its surroundings, that there would be any potential for 'significant' effects, such as to warrant the production of an EIA. Equally, the proposal shall incorporate significant areas of landscaping.

Characteristics of the development

The characteristics of the development are one which is small scale, low in natural resource usage, would not produce waste products or pollution, and would have a low risk of generating accidents in terms of the technologies to be used. It is our view therefore that the characteristics of this development would not justify the submission of an EIA in terms of the generation of likely significant effects.

Location of development

The location of the proposed development is not considered to be a sensitive area under the definition of such given in Regulation 2(1), as land lying within SSSIs, National Parks, the Broads, World Heritage Sites, Scheduled Monuments, AONBs and sites covered by international conservation designations.

Characteristics of the impact

The nature of the proposed development is for a Green Hydrogen Electrolyser, a technology which is well understood and in operation elsewhere throughout the UK, and therefore would not result in any unusual, complex or potentially hazardous environmental effects. It is our view therefore that the characteristics of any impacts from this development would not justify the submission of an EIA in terms of the generation of significant effects.

Potential Impact

It is acknowledged that there are potential environmental impacts arising from the proposed development and these aspects will be addressed through the provision of supporting reports to the planning application. However, it is considered that with regard to the Indicative Criteria and Thresholds within the Planning Practice Guidance, and also the screening criteria set out in Schedule 3 of the EIA Regulations, that these impacts would not be 'significant' such as to warrant the submission of a formal EIA.

The forthcoming planning application will be accompanied by appropriate reports in respect of technical matters to demonstrate that the localised environmental effects of the development will be acceptable. It is proposed that the application will be accompanied by the following documents:

- Planning, Design and Access Statement;
- Transport Statement;

- Preliminary Ecological Appraisal;
- Flood Risk Assessment and Drainage Management Plan;
- Utility Survey;
- Phase I Geoenvironmental Desk Study;
- Cultural Heritage Desktop Study;
- Acoustic Impact Assessment.

On this basis, the screening opinion of the local authority is sought as to the requirement for Environmental Impact Assessment for the proposed development. Should you require any additional information, please do not hesitate to contact me.

Yours faithfully,



Rebecca Little

Planner

rebecca.little@pegasusgroup.co.uk