The Electrolyser site

Indicative image of HPF

We are proposing to build a new electrolyser as part of these proposals. This electrolyser will use renewable electricity to create the hydrogen by breaking down water into its component elements. The green hydrogen will then be produced, stored, and transported to the Brewery next door.

Once produced at the electrolyser site, some of the hydrogen is then transported to the Hydrogen Refuelling Station, which safely stores the hydrogen until it is used to refuel HGVs or forklift trucks. As the 3D rendering image shows, in a design similar to current petrol stations, vehicles would stop and refuel and then drive off.

Indicative image of refuelling station

How the process works

Renewable energy provided by the wind turbine and solar panels will be fed to the site and connect to the Hydrogen Production Facility (HPF). The HPF consists of an electrolyser, which uses the renewable energy to produce green hydrogen. Hydrogen is produced by using electricity to break water (H_2O) down into its component elements – hydrogen (H_2) and oxygen (O_2).

In addition to being used as a replacement fuel to diesel and petrol in onsite mobility and HGVs, green hydrogen will be supplied to the site via a pipeline to provide high temperature heat for use in the Brewery's production – decarbonising thermal demand within the Brewery processes.