



PORT OF LONDON AUTHORITY - THE HYDROGEN HIGHWAY



There is a lot of talk about hydrogen being a solution for decarbonisation. Whether you agree or not, or think its perhaps a fad, one thing is certain; if we don't look at it, there is a risk that ports will still have to deal with the outcomes of any policies and regulation in order to make it fit for purpose and safe in a challenging port and maritime environment, It is something increasingly on the agenda and ports across the world are having to respond to the potential of both import and export of hydrogen in the wider mix of other cargos and alternative fuels.

Like our European counterparts, the PLA has been looking at the spatial and temporal mix for the Thames to try and plan regulatory reviews and investment, and now we have the opportunity to do so with a group of UK universities and the lead regulators in the port operation. As with anything it will remain to be seen what this means for the Thames and UK port operations, which with the help of UKMPG, BPA, Milford and Blyth we will be using London as a proxy for.

While up to now hydrogen has been in the environmental agenda, it is increasingly part of safety and economic discussions, locally and nationally. It is also often joined with offshore renewables and autonomy, which is being tackled as part of the programme in partnership with the University of Strathclyde and OS Energy.

As a result of the Maritime UK funding, over the next three years we and our partners will be investigating if the waterborne carriage of hydrogen can

optimised to keep lorries off of the roads, carry larger volumes safely, and potentially, ahead of pipe upgrades that can be scaled up. The work will also outline the data and communication interfaces required for offshore and land-based application of autonomous ship operations.

The PLA itself is also replacing the provision of power with fuel cell generators to harbour vessels on a constrained operational site that can be scaled. We will be able to share more on this later in the new year.

The key package for us on both hydrogen and autonomy is the safety considerations of hydrogen transfer and bunkering in maritime and urban settings, with the integration of smart technologies for maritime and shore-based processes. We will also be evaluating constraints that may vary at different locations, so that we can produce a tool kit for any UK port or terminal looking at the supply of clean energy to major consumers ashore and in port, as well as the training and skills for operations to do so.

We are looking into the resource and technical feasibility of offshore green hydrogen production, making effective storage, transport and offloading for consumption ashore. Finally we will be looking into the economic optimisation for existing and new maritime operations to capitalise on the opportunity that might come forward locally and regionally.

The project has a catchy title of Land, Sea and Port Integration of a Smart Hydrogen Highway, which I have to admit we have already shortened to Hydrogen Highway! We look forward to working with all the UK ports and gathering views on the approach throughout the programme.

TANYA FERRY

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