

north wales economic ambition board
bwrdd uchelgais economaidd gogledd cymru

REPORT TO TRANSPORT DELIVERY SUB-GROUP

26/04/2021

Title: *Holyhead Hydrogen Hub: Project Overview & Next Steps*
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1. Purpose of the Report

1.1 To provide an overview of the Hydrogen Hub Holyhead project in respect of progress to date and outline the next steps in the development of the project.

2. Decision Sought

2.1 This report is to prepared as an update to North Wales Economic Ambition Board’s Transport Delivery Sub-Group and is for information purposes. This report does not seek a decision at this time.

3. Reasons supporting the need for a decision.

N/A

4 Background and Relevant Considerations

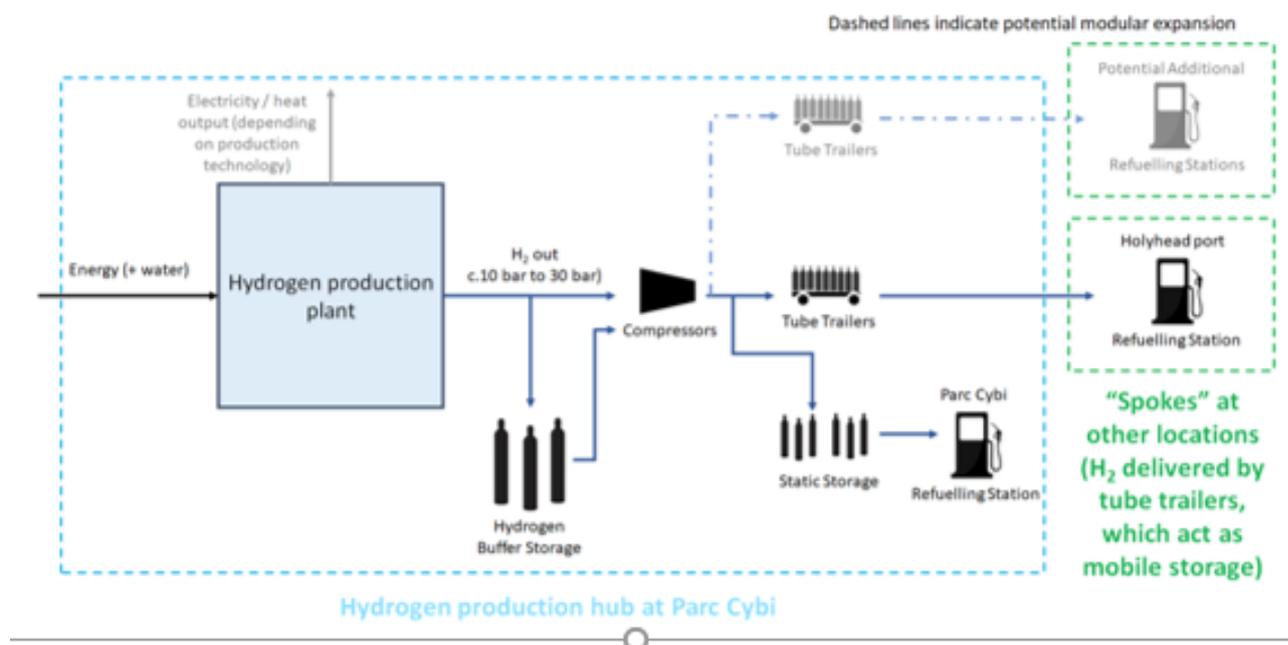
4.1 The project is in the development stage for a potential hydrogen production plant and fuelling/distribution hub at Holyhead. The project could potentially contribute towards decarbonising the transport sector at scale in Holyhead (Parc Cybi has been identified as the preferred site), across Anglesey and North Wales.

4.2 Green Hydrogen would be produced by utilising the significant renewable resources offshore, both tidal and wind, that the Island possesses and together with demands at Holyhead Port, IACC fleet, local HGV and bus companies it provides sufficient demand to kick-off the project and develop supply-chain opportunities locally.

4.3 With a target operational date of early 2023, this is a ‘First of a kind’ project for Wales under a Hub & Spoke model (See Figure 1) and will collaborate with complementary developments

in north Wales (Deeside Hydrogen Hub - Flintshire), the rest of Wales and the UK and connecting to Ireland.

Figure 1.0 – Proposed Hub and Spoke Model



- 4.4 The economic benefits associated with the project could be significant. In the operational phase, the proposed initial Holyhead Hydrogen Hub could potentially provide significant economic benefits including:
- Create 20FTEs directly at the initial Hub plus a further 10 additional jobs in vehicle maintenance.
 - Indirectly support over 500 jobs at local businesses.
 - Provide the platform for scaled-up hydrogen production for transport and diversification to the heat, power, industry and agriculture markets. This would boost GVA and provide substantial, sustainable job opportunities which can be embedded in the local community.

Project Development Progress to Date (December 2020-March 2021)

- 4.5 The IoACC has partnered with Menter Mon (MM) to develop the project due to Menter Mon’s previous involvement in this field. A Hydrogen Director was appointed by Menter Môn in December 2021 to lead on the development phase of the project.
- 4.6 External consultants have been appointed by Menter Mon following a procurement process via Sell2Wales to undertake detailed assessments for the Holyhead Hydrogen Hub based on the findings of the 2020 [initial feasibility study](#).

- 4.7 The consultants are a consortium led by hydrogen specialists Logan Energy; and legal firm Capital Law. By April 2021, they will deliver reports based against 5 tendered lots:
- a) Business Development including costs and potential vehicle suppliers
 - b) Design & Engineering
 - c) Planning Advice
 - d) Environmental Impact Assessments
 - e) Legal Advice
- 4.8 Discussions have been held with IoACC's transport officers as potential end-users of hydrogen, together with Stena at the Port of Holyhead, local HGV operators, the Welsh Government and other potential end-users which are being identified as part of the development work and which can inform the design of the Hub. Additionally, workshops have been held with other key stakeholders include SP Energy Networks (Electricity Grid), Coleg Menai (Skills & Training), M-Sparc (R&D) and Wales & West Utilities (Gas network).
- 4.9 Press releases have attracted good coverage and social media interest. The project continues to attract increasing external interest from new, potential delivery partners to include local businesses, UK Government, technology suppliers and multi-national corporations.
- 4.10 Initial discussions have taken place with NWEAB on the prospects for a joined-up approach to hydrogen developments across North Wales and connecting to Flintshire. This will be reviewed and monitored as the project progresses

5. Financial Implications

- 5.1 The IACC in partnership with Menter Môn secured £105,000 of grant funding from Welsh Government's Local Transport Fund in October 2020 for early project development activities.
- 5.2 An additional £225,000 has been secured in 2021/22 to undertake the following activities:
- a) Refine and optimise the results of the current development work;
 - b) Assess the scale-up and diversification opportunities extending to large-scale hydrogen production from offshore renewables
 - c) Prepare a full socio-economic assessment of the scale-up potential to include the scope for supporting the Port in its ambitions for renewables and expansion;
 - d) prepare and submit a planning application for the hydrogen production plant
 - e) Further connect the Hub with complementary developments in north Wales including the Deeside Hydrogen Hub in Flintshire and also extending into England and westwards into Ireland
 - f) Refine the business case to include exploring further business development opportunities with external organisations.

5.3 Should the project be successful in securing the necessary planning consents (without pre-judging the decision making process), activities will be geared towards preparations for the construction and opening of the Hub and assessing the scale-up opportunities.

5.4 In the 2021 Budget announcement, the Chancellor announced £4.8m of funding towards the development of the Holyhead Hydrogen Hub, however, further information has been limited to date. The funding will be reliant on the business case being proven and approved.

5.5 The current studies will advise on more detailed cost estimates and options for the operational phase.

6. Legal Implications

6.1 A formal legal agreement has been established between the IACC and Menter Môn which has been signed by both parties and sealed. Both IACC and Menter Môn were willing to enter into this agreement.

6.2 The purpose of this Agreement is to make Menter Môn aware of the Grant Conditions and to impose an obligation on them to comply with the Grant Conditions. Both parties enter into this agreement for the purpose of delivering the Holyhead Hydrogen Hub project as set out in Welsh Government's Local Transport Fund. This provides the assurances that IACC has ensured that there is no financial risk arising from this decision.

7. Staffing Implications

7.1 A Hydrogen Director was appointed by Menter Môn in December 2021 to lead on the development phase of the project.

7.2 There are currently no staffing implications to the IACC are project managing the grant expenditure by utilising existing staffing resources.

7.3 A Project Board has been established between the IACC (representatives from Highways, Waste and Property) and Menter Môn to ensure compliance with the grant conditions, monitor progress and address any issues being raised.

8. Impact on Equalities

8.1 An Equality Impact Assessment will be considered as the project development activities continue.

9. Consultations undertaken

9.1 Extensive consultations have been undertaken and are on-going with stakeholders. These include:

- The IACC on the prospects for decarbonising transport, reducing air pollution and supporting the local economy;
- Grwp Llandrillo Menai (Coleg Menai) with respect to the training and skills opportunities;
- Bangor University's science & innovation hub M-Sparc on the R&D opportunities;
- SP Energy Networks on the flexibility which hydrogen production can provide to its operations via their Active Network Management programme;
- Wales & West Utilities on the potential for sectorcoupling with the gas network to decarbonise heat.

9.2 This local element is further strengthened by the appetite shown from businesses Stena Group, Delivery Solutions and Gwynedd Shipping for the introduction of hydrogen vehicles to their HGV fleets, port operations and scaling-up to potential shipping applications.

9.3 Additionally, engagement has been undertaken with the Welsh Government, housing associations, Faun Trackway and other end-users which are being identified as part of the development work which can inform the design of the Hub - and who could also benefit from Spokes.

10. Appendix

[Holyhead Hydrogen Hub Feasibility Study \(Summary\) - June 2020](#)

STATUTORY OFFICERS RESPONSE:

i. **Monitoring Officer – responsible body:**

This is an information only report on a project. There are no apparent direct legal implications for the work of the Sub Board

ii. **Head of Finance – responsible body:**

I understand that this progress report is submitted for information, hence I have nothing to add from a financial propriety perspective.