

Case Study

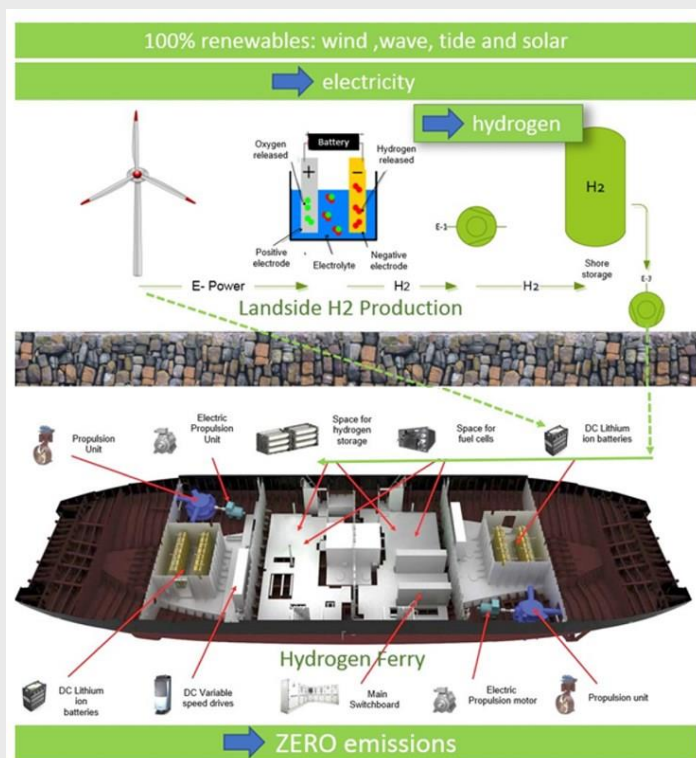
HySeas Energy Systems

The Scottish Government (through Scottish Enterprise) commissioned the consortium of EMEC and Logan Energy to develop the scope and produce a detailed project plan for the HySeas Energy Systems Demonstration project, which will provide hydrogen supply and refuelling infrastructure for the HySeas III Hydrogen Ferry project.

PROJECT INFORMATION

The HySeas III Hydrogen Ferry project is an EU-funded project to develop hydrogen-powered ferries for use around the Orkney Isles. For the project to proceed, hydrogen refuelling infrastructure was required for the ferry sea trials, which takes place on the Clyde, and for the ferry deployment around Orkney. At both locations (Clyde and Orkney) the infrastructure comprised of the following:

HySeas III Project



- Provision of refuelling infrastructure to the hydrogen ferry.
- Energy storage at the generation sites and ferry refuelling points; and
- Transportation of fuel to suitable bunkering facilities.

The project methodology included:

- Providing the specification of the hydrogen refuelling system and elements of the wider energy systems demonstrator including wind turbines or other renewable generation capacity, the electrolyser, hydrogen storage, user interfaces for ferry refuelling, and the infrastructure for additional hydrogen fuel users.
- All elements of a project implementation plan — specifying timescales, costs, and funding requirements — and identifying the role of public sector agencies in supporting implementation of the project.
- An assessment of the economic impacts of the project.