



HYSKUA

Feasibility study and design of a floating offshore hydrogen production facility, funded by the Scottish Government

Background

The HySKUA project, funded by the Scottish Government, aims to assess the feasibility and design a floating offshore hydrogen production facility with a 500 MW electrolysis capacity powered by an offshore wind farm. EMEC is leading this project with support from SOFRESID for naval architecture and hydrogen system design.

Tasks

- Design of the compression module (30→80 bar for export): compressor skids, H2 cooler and scrubber, measurement skid, mobile crane.
- Design of the electrical module: GIS equipment, VFDs, HV and LV transformers, ECS and UPS room, mobile lifting beam.
- Design of five 100 MW hydrogen production modules: PEM and BOP fuel cells, rectifier, transformers, switchboards, instrumentation room, mobile lifting beam.
- Design of in-hull utilities: nitrogen generation and storage unit, instrumented air skid, HVAC equipment, seawater pumping and treatment.
- Design of the accommodation block (70 POB).

Our strengths on this project

Expertise in offshore and wind-powered hydrogen production.
Experience in naval architecture and hydrogen system design.
Close collaboration with EMEC and project partners.
Ability to develop innovative solutions to meet technical challenges.
Knowledge of regulatory requirements and authorisation processes

Market

GREEN Energy
Offshore Hydrogen Production

Role

Engineering and Design

Cycle

Feasibility and concept

Year

2024

Location

Scotland

