



Powerhouse

PowerHouse is the skills and innovation vehicle of the Inverness and Cromarty Firth Green Freeport (ICFGF). The PowerHouse is responsible for supporting networks to support floating offshore wind and green hydrogen technologies. The range of services includes R&D, Education and Skills Development. It is one of five interlinked projects central to Inverness and Cromarty Firth Green Freeport becoming a strategic national renewable energy hub, supporting the rapid expansion in renewable projects off Scotland's shores.

Key Capabilities / Centres

Descriptions

Research and Development

The PowerHouse will enable innovation in the green hydrogen and offshore wind sectors. ICFGF has established the Powerhouse to support innovation and intends to attract inward investment and maximise local and national benefits through the transition from fossil fuels to renewables. Once operational, ICFGF will offer a tax and customs incentives package to support these intentions and to stimulate investment and growth.

Education Hub / Skills Development

The 32-hectare site offers modern space focussed on innovation and manufacturing. MSIP is playing a significant role in the decarbonisation of industries and can support companies through public and private sector partnership and identifying funding.

Collaboration opportunities

The PowerHouse is dedicated to developing skills and accelerating research & technology innovation in floating offshore wind and green hydrogen technologies.

Collaboration opportunities can broadly be defined as:

- Innovation activities (including research and development) within the green hydrogen and offshore wind sector, including synergies between.
- Skills development primarily across these two sectors.

Centre location



Value Chain Areas

Testing & validation

Pilot manufacturing

Digital tools & simulation

Open innovation spaces

Skills development

Production	O	X	✓	✓	✓
Networks	X	X	X	O	O
Storage	O	X	O	O	O
Transport	X	X	X	O	O
Industry	O	X	X	O	O
Power	O	X	O	O	O
Heat	X	X	X	O	O

Hydrogen case studies

- The PowerHouse in collaboration with **UHI North Highland College's Creative Arts Department** organising a film making event for pupils to learn about renewable energy and the sustainable energy projects in the Cromarty Firth alongside industry professionals.
- **The Cromarty Hydrogen Project**, located in ICFGF, forms part of the Scottish Government's Hydrogen Action Plan which aims to achieve Net Zero by 2045. The intention is to develop production hubs to supply hydrogen, initially to meet existing industrial demand, and later, meet demands from e.g. distilleries and mobility applications.
- The PowerHouse is working on the **Demonstration of Direct Ammonia Fuel Cells for Maritime Propulsion** with the University of St Andrews.

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