Virtual Energy System (VES) Project in Orkney

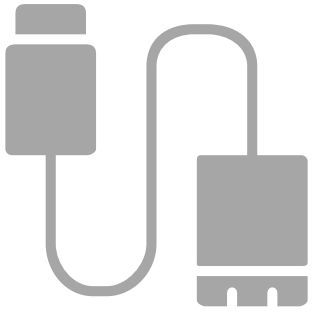
Heriot-Watt University

The project

Heriot-Watt university is the only academic partner in a project led by the European Marine Energy Centre (EMEC) aimed at creating a '**smart energy island**' by digitally linking distributed and intermittent renewable generation to flexible demand, helping to reduce reliance on fossil fuels.

Outcomes and implications

- The project will provide demonstration of **energy balancing technologies** aiming to deploy a range of clean energy solutions such as up to **500 domestic batteries** and **600 electrical vehicles**
- The project will have positive socio-economic impacts on Orkney as it will help maximise its renewable energy production
- The project will provide exceptional energy efficiency and make clean energy more affordable, reducing costs associated with energy imports



SDGs

The project supports **SDG7** as it aims at maximising energy use from clean energy sources. and developing a system that would help achieving energy security, **making clean energy affordable**

As the project will **drive innovation** in Orkney's **renewable energy industry** and contribute to develop a local and sustainable energy system, it also supports **SDG9** and **SDG11**

it is also an example of **SDG17** as the project involves a range of partners, including Orkney Islands' Council

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