



## Orkney islands: Battery storage in a tidal energy project

### Short Description

The purpose of the Orkney LOGiC pilot project is to integrate battery storage in a decentralised renewable tidal energy project. By generalising and exploring project aspects relevant to battery storage, the project plan will be a blue print for future projects combining tidal energy and battery storage.

### About Tocardo International B.V

[Tocado International B.V.](#) is a Dutch founded and based company and global leader in tidal energy solutions. Tocardo is driven to develop state-of-the-art business solutions that maximise the potential of the tidal energy production worldwide. Tocardo believes that this type of energy stands at the beginning of its development and its full potential, just like wind turbines 10 years ago. But unlike other alternative sources, this 'flow of energy', delivers a solid, reliable volume of green energy.

### The Challenge

Although tidal energy is considered very predictable, the production is not always following the customers demand.

### Renewables-based decentral hybrid energy system (DHES)

By installing batteries as an energy buffer, it is possible to decorelate the energy production from the demand, ensuring a secured and low carbon electricity supply to the customer. Several scenario's for integrating battery storage will be explored: new battery storage in an existing asset (already built); as well as including battery storage scope in a new project within the Low Carbon Off-grid Communities ([LOGiC](#)) project.

## Project Financing and Costs

Tocado International B.V. is installing their UFS tidal power station as part of another Orkney project, and this can be considered as an existing asset. The project will, however, also include battery storage in a new project. This project is to be build as part of LOGiC, which receives 60 % funding from [Interreg North-West Europe](#).

## Expected Project Outcome

By generalising and exploring project aspects relevant to battery storage, the project plan will be a blue print for future projects. With this blue print, each project team can quickly scout and assess a business opportunity to integrate battery storage in a Decentralised Hybrid Energy System energy project/asset.

By developing and evaluating the Orkney project, the project blue print will include among others, a site selection plan, technical requirements for battery storage, lessons learnt, a risk and mitigation plan, a stakeholder plan and a tender strategy with a assessment/evaluation tool.

## Contact information

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