

Isle of Kerrera Development Trust Wind Turbine

Introduction

Kerrera is a small island with approximately 40 residents in the Inner Hebrides close to the busy port of Oban in Argyll. The community is working together through the Isle of Kerrera Development Trust to implement the community development plan, overcome the challenges of island infrastructure, and reverse the trend of population decline.

The community wind project was initiated to generate a steady income stream to fund a community development officer and provide match funding for community projects for capital projects such as home insulation improvement and road upgrades.



The project began with a proposal to look at 3-5, 25m hub height turbines, on 'tilt-up' towers to avoid the need for crane access. Heavy lift cranes were not seen as logistically possible because of the size of the ferry, the poor state of the single track road, and the tight turns and steep gradients. However because of the cost of the grid connection this design was found to be unviable without capital grant support, even with the strong wind resource that had been identified by 18 months of anemometry.

Undeterred, access studies and ground surveys confirmed that a boat could land on a custom built slip close to the turbine site, with acceptable gradients for a new track going directly to the turbine. Accordingly the project switched to three 30m hub height turbines on conventional towers, which after further financial and logistical analysis and visual impact assessment switched to a single turbine of 45m hub height.

After lengthy negotiations, a legal agreement on the lease of the site is nearly complete and planning permission and grid connection applications will be submitted shortly, thanks to the hard work of Ian Leaver, the Turbine Project Officer. All being well construction should start at the end of 2012. Further information is available here:

<http://www.ikdt.co.uk/current-projects.html>.

Equipment: This project is not yet at capital stage.

A 900kW class A wind turbine will be installed in 2013.

Cost and Grant Funding

Total Project cost	£1,800,000	Pre-development funding was obtained from: Scottish Government SCHRI and CARES Loan Highlands & Islands Enterprise Climate Challenge Fund
Mezzanine finance sought	£450,000	
Mezzanine finance percentage	25%	

Emission Savings

As the project is not yet at capital stage, these savings are estimates.

Estimated kWh savings p.a.	2,365,200
Annual CO ₂ savings (tonnes)	1,017,036
Lifetime CO ₂ savings (tonnes)	20,340,720

Project Monitoring

The project generation will be monitored through a Scada system.

Local Impact

Kerrera is a fragile community due to its size and remote location. A significant fall in population has led to the loss of some of the island's key facilities, including the school which closed in 1997. The community are pursuing the development of a community renewables project in order to generate revenue to sustain community development activity and community projects.

Kerrera's community is relatively young and active and like all small communities relies on the enthusiasm and drive of its inhabitants. The community have drawn up a Community Development Plan to set out the hopes and aspirations of the community which were identified through extensive consultation and effective communication among the islanders. The Kerrera Community Development Plan was published in May 2008; it will act as Kerrera's 'voice' in the wider community and will lay out a path for the Island to follow into the future.

The Kerrera Development Trust has the following targets they want to deliver over the next 5 years:

- To increase Kerrera's resident population by 30%
- To build at least 4 new affordable houses for rent
- To permanently link both ends of the island
- To create 5 permanent island based jobs
- To make Kerrera a 100% renewable energy island
- To complete 5 community 'Flagship Projects' taken from the community development plan
- To make Kerrera a quality tourist destination and improve visitor satisfaction
- To maintain the number of farm businesses at current levels

Louise Moran the Project Officer for IKDT said:

"We have had a lot of support from Felix Wight of Community Energy Scotland (CES) over the past year and he has led us into a position of moving forward into the Local Authority planning process."

For further information, contact:

Community Energy Scotland Contact

Felix Wight

Kintyre Place, Tarbert, Argyll
PA29 6UL

01880 820 055

felix.wight@communityenergyscotland.org.uk