WREN Energy Equality Project

RCEF Stage: Feasibility

Wadebridge Renewable Energy Network

The Story

Wadebridge Renewable Energy Network (WREN) Ltd is a not-for-profit company engaged in increasing the take-up and sharing the benefits of renewable energy in the Wadebridge and Padstow network area of Cornwall. It is led by volunteers on the Board of Directors and has over 1,100 members. The Energy Equality Project is investigating new rooftop solar installations on community buildings and a peer-to-peer energy trading mechanism.
To take this project beyond the feasibility stage, several potential community rooftop solar sites have been identified and estimates of the installation costs were obtained, allowing WREN to financially model the projects. It is planned to meet the costs of building solar PV installations by offering community shares. The University of Exeter interviewed a sample of residents to evaluate the acceptability of a local share offer. Potential rates of return for investors were modelled, as was the price at which the energy generated could be sold through the peer-to-peer trading platform.

Challenges & Risks

Work on this project has been delayed, in part due to the turbulence in the energy market which makes accurate financial modelling very difficult. The legal framework around the power purchase agreements needs to be considered early in any similar proposed projects.

Lessons Learned

Keeping the local community informed, especially those with links to the potential stakeholder rooftops, throughout the process is essential to maintaining confidence and momentum in the project. The peer to peer element of the project, under current national regulation is exceptionally difficult to get off the ground for volunteer-led local renewable energy networks.

Key Facts

Generation	Rooftop Solar PV
Location	7 local authority or community owned rooftops in the Wadebridge & Padstow community Network Area.

Key Figures

Project size: Tech type	Combined proposed array size 225.9 kW
Energy Generation	228’066 kWh pa
Private finance leveraged	
CO2 savings	53,157 kg CO2 eq
RCEF grant	

Further Notes

LEP area: N Cornwall

Link for further info:
https://www.wren.uk.com/energy-equality/feasibility-study
https://www.youtube.com/watch?v=otD63B99nmg