



CLASP.

Lake District Low Carbon Energy Futures

Additional Information – for use with the 3D architectural model

This document is part of a series of information about this project, including a guide to the process, 3D model used, and the resulting community Action Plans.

All documents can be downloaded from: <http://claspinfo.org/rural-low-carbon-futures>

Introduction to the Low Carbon Energy Futures Project

Many communities in the Lake District National Park have already expressed an interest in looking at renewable energy generation and energy efficiency measures within their communities, but many struggle to know how to take these ideas forward, often finding the enormity of the challenge overwhelming.

In order to attempt to overcome these barriers, a project was developed to provide assistance and guidance for a number of communities in the National Park.

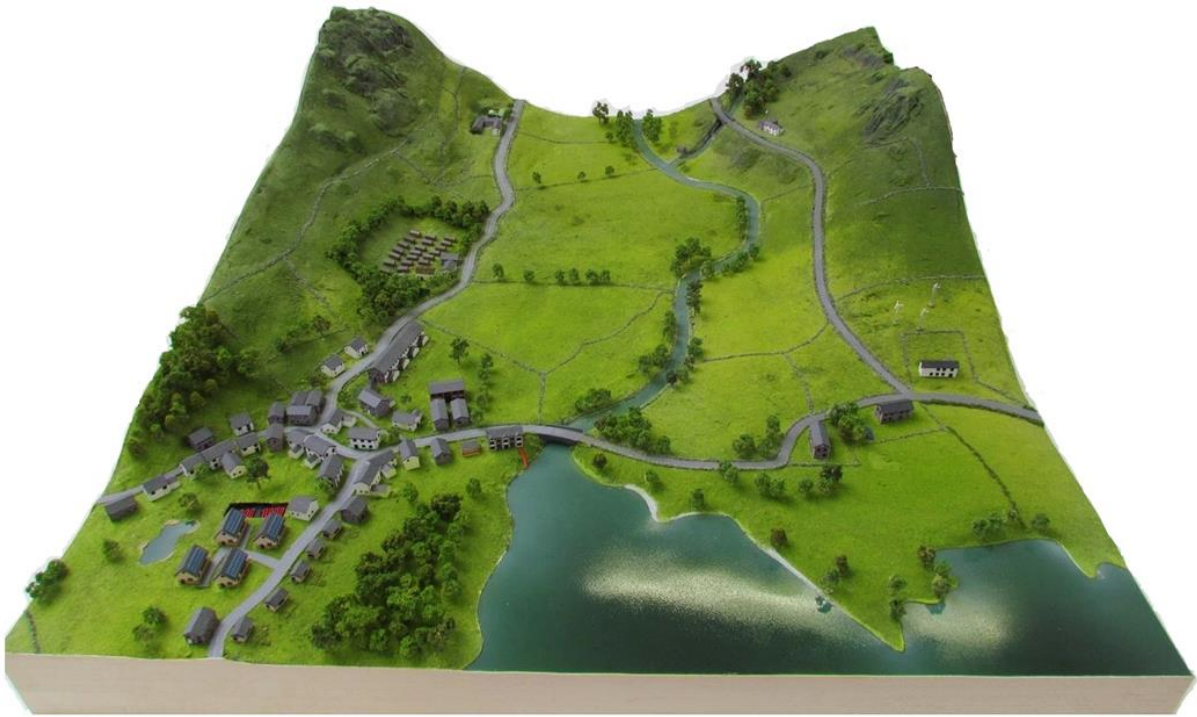
The LDNPA have been successful in obtaining funding from CLASP to undertake this work between March 2014 and January 2015. They have employed Cumbria Action for Sustainability to deliver the project with them.

In summary, the project will provide three communities in the National Park with the assistance they need to help them take ownership of their own energy futures. It will provide the much needed structured advice and support to overcome the barriers that are stopping activity, enabling community groups to progress from initial ideas, and towards having a clear plan for action, including sourcing for funding to get projects on the ground.

A key element of the overall project idea was the development of a 3D architectural model. In order to help members of our local communities to visualise ideas for projects and options available to them, we designed and built a model showing a typical Lake District Valley and renewable energy and energy efficiency opportunities.

This document sets out what the model includes and includes images of each element so anyone using it for the first time knows what to look for!

Summary of the key elements of the 3D architectural Model



The model incorporates the following – can you spot them all?

- A group of modern eco-houses, with additional glazing on the southern side and featuring a reed-bed drainage system, solar photovoltaic (PV) panels and ground source heat pumps.



- Council houses and an adjacent school building which share a district heating system fuelled by a biomass boiler



- A farm with rainwater harvesting on one of the barn roofs and a small-scale Anaerobic Digestion (AD) plant



- A second farm or converted barn with a small 15m wind turbine of 5 or 6 kW



- A run-of-river hydroelectric scheme, with weir and turbine house



- Isolated housing with a ground-mounted solar PV array



- A hotel with biomass heating and water source heat pump, indicated by red pipes entering the lake (in reality, these would be underground)



- A caravan site with a green or sedum or living roof on one of the buildings



- Three 12m wind turbines serving an isolated dwelling with a total combined capacity of 15kw



Produced by Cumbria Action for Sustainability, as part of the Lake District Low Carbon Energy Futures Project

2015

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