



Low Carbon Lake District Grants Scheme: Case Study

Fornside Farm Cottages

The Challenge:

Fornside Farm is a Lakeland farm in St John's in the Vale, a scenic and peaceful valley under the slopes of the Helvellyn Range. As a business, it includes four luxury holiday cottages converted from stone barns, alongside the main farmhouse.

Joanna and Matt Butler initially bought the farm four years ago. They recognised that every aspect of the heating across the properties needed overhauling and installed a ground source heat pump to generate energy from the ground as part of a wider refurbishment. Solar panels were also proposed, but a key challenge was assessing how much impact the panels would have for west-facing buildings in a secluded location in the North of England.

The Solution:

Fornside Farm Cottages were able to purchase 24 photovoltaic solar panels, by securing funding of just over £5,100 - or 60% of the total project's cost – from the Low Carbon Lake District Grant Scheme.

The panels are made out of photovoltaic cells with layers of semi-conductor material that convert the sun's energy into electricity. They have now been installed on the roof of the barn; although this faces west, it is a relatively low pitch to harness the sun's rays effectively.

The project included linking up the barn to the holiday cottages. This means the holiday let side of the business can also lower its carbon emissions on sunnier days. Whenever there is demand for electricity within the properties, an inverter ensures that any solar energy captured by the panels is drawn down first, rather than using the site's existing electricity supply.



The Results:

The solar panels are up and running, and have started to generate electricity on sunny days. Estimates made using the CAFS (Cumbria Action for Sustainability) energy saving calculator suggest that Fornside Farm will save 1.40 tonnes CO₂ equivalent per year.

Assuming there is high daytime energy use in the peak visitor season, there is also the potential to reduce business overheads and mitigate against the significant increases in utility prices during 2022.

Joanna Butler says, *“With rising costs such a hot topic at the moment, we will watch and see exactly how much electricity is generated and compare this to the rise in energy costs.”*

“Although we don’t expect the new solar panels to produce enough energy to meet the site’s entire electricity requirements (after all, the Cumbrian weather can be unpredictable!) we should see the greatest impact in the summer and we will be monitoring this closely.”

“These measures have been motivated by our personal desire to use renewables where we can and avoid burning more fossil fuels. We see this as a process – and we’re not there yet - but I would advise other tourism and hospitality businesses to consider what steps they could take while funding is available. With careful research and decision-making, there are practical solutions out there.”

She adds, *“The support from the Low Carbon Lake District Grant Scheme has been invaluable. Once we knew about the grant, it was pretty straightforward to get the ball rolling. The Lake District Foundation were very helpful and enabled us to access all the information we needed to get our application submitted successfully.”*

The [Low Carbon Lake District](#) initiative is a comprehensive programme to help tackle climate change in the National Park, working in partnership with local businesses and communities to reduce greenhouse gases and prepare for the impacts of climate change. Led by the **Lake District National Park Authority**, other key partners include the **Lake District Foundation**, the **National Trust**, **South Lakeland District Council** and **Cumbria Tourism**.

Low Carbon Lake District has received funding from the England European Structural and Investment Funds Growth Programme 2014-2020. The Ministry of Housing, Communities and Local Government and the Department for Work and Pensions (and in London the intermediate body Greater London Authority) are the Managing Authorities for European Regional Development Fund and European Social Fund funding through the Growth Programme, funds established by the European Union to help local areas stimulate their economic development. By investing in projects the funds will help to support innovation, businesses, skills and employment to improve local growth and create jobs. For more information visit: <https://www.gov.uk/europeangrowth-funding>.

The Northern Powerhouse is a key aspect of this Government’s approach to addressing the productivity gap in the North and ensuring a stronger, more sustainable economy for all parts of the UK. Alongside over €1.5 billion of European Regional Development Fund support for businesses and communities across the North, the government has awarded £3.4 billion in three rounds of Growth Deals across the Northern Powerhouse.