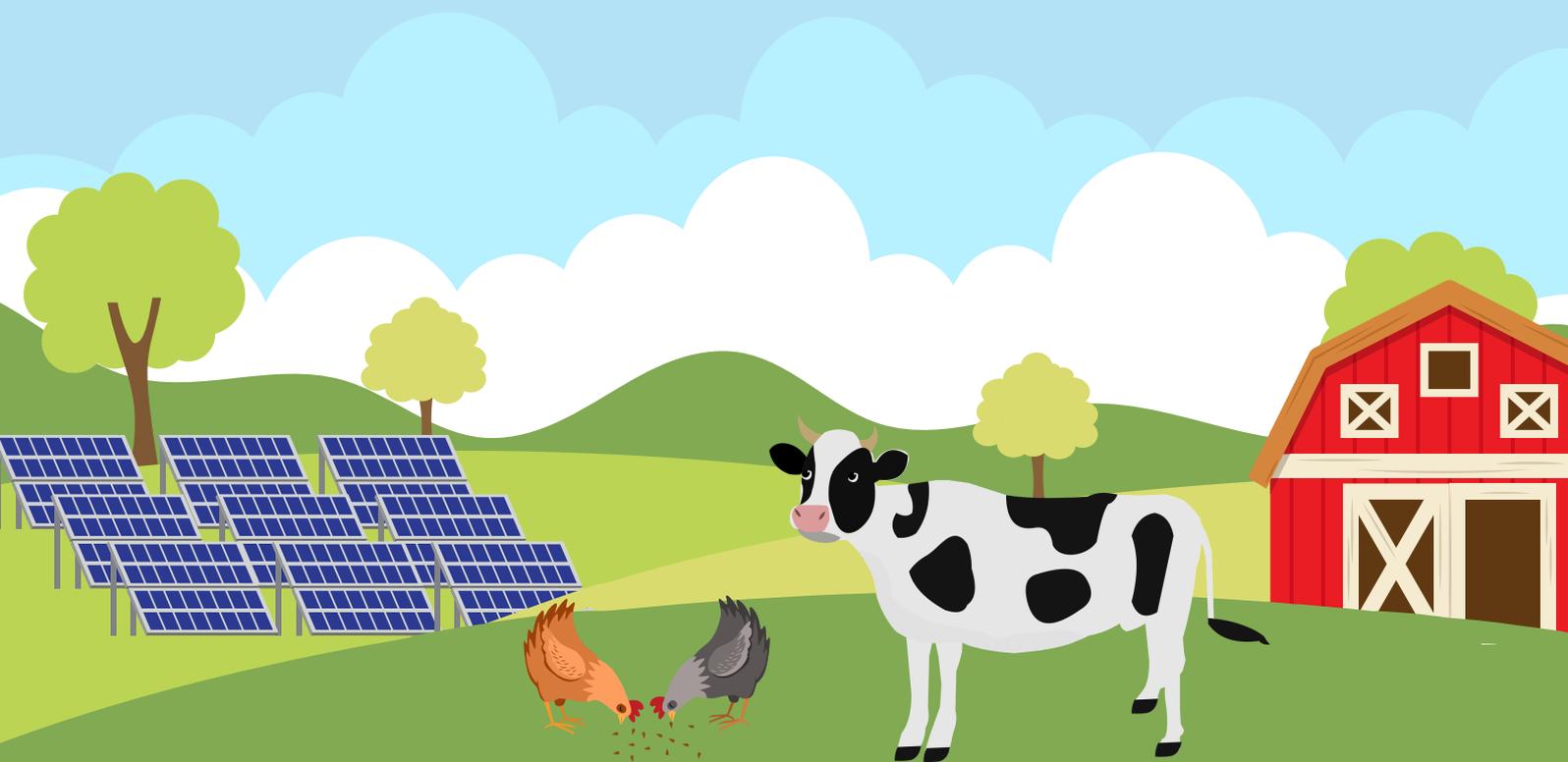


Case Study

Our Cow Molly Farm



Summary

- **Location:** Sheffield, England
- **Capacity:** 11 Kilowatts
- **Type:** Solar tracker demonstration
- **Developer:** Corrie Energy Partners
- **Owner:** Our Cow Molly Farm
- **Panel type:** 450W Bifacial
Monocrystalline
- **Completion date:** February 2025



CORRIE ENERGY
PARTNERS

Corrie Energy is a UK cleantech start up redefining solar tracking in temperate climates. With over £1 million invested in R&D since 2018, Corrie has developed Latitude40, a novel solar tracker that increases UK solar generation by up to 30%. Backed by multiple DESNZ and Innovate UK awards, the technology is designed to transform the UK and European ground mount markets.



Overview

The Our Cow Molly dairy farm is family run, going back three generations. Their milk used to be mainly sold to a large distributor but fierce competition amongst supermarkets meant the farm was losing money and under threat of closure. Forced to diversify, the dairy started producing ice cream in 2007 and the brand 'Our Cow Molly' was born.

The farm secured a sustainable supply of milk to the University and as a result, it now receives the freshest milk delivery in the UK, with the milk travelling only four miles from the cow to the coffee shop on the very same day. By purchasing locally, every penny from the milk remains in Sheffield and the University's carbon footprint is also minimised.

The partnership has been widely recognised as a case study in sustainable farming, for example hosting using H3 polytunnels which grow leafy greens with 90% less water. They are installing one of Sheffield's largest farm solar panel setups, including rooftop solar on a new barn and Corrie's solar trackers. It is a "living lab" for clean energy, backed by the University of Sheffield and Corrie Energy.

In February 2024, it became the second UK farm to deploy Corrie Energy's solar trackers, installing six Latitude40 trackers alongside the public car park. Each tracker carries four 450W panels, following the sun to maximise output across the day. Unlike fixed systems, these trackers generate power earlier in the morning and later into the evening – perfectly matching farm demand for milking and processing. On 29 April 2025, the bifacial units delivered 47% more kWh per panel than the adjacent rooftop solar array.



The trackers are highly visible to customers visiting the farm shop and café, where they've already become a conversation starter and symbol of local energy leadership. Eddie and the team are proud to showcase their commitment to innovation – recently hosting an open farm day focused on renewables, where the trackers were a centrepiece.

Project Summary

This project springs directly from the farm's commitment to improving sustainability through visible, local, high-tech solutions. Eddie immediately saw that trackers generate energy when his dairy demand is high, near dawn and dusk; but also be a visible commitment to their innovation. Corrie's trackers more closely match the farm's electricity load, improving self-consumption and complementing existing rooftop PV. The project also deepened Corrie Energy's partnership with the University of Sheffield's solar research team, a national leader in solar data analysis. The farm serves as a live testing ground where real-world tracker performance is monitored, modelled, and continuously refined. The data collected helps guide ongoing improvements to system design, bifacial performance, and energy modelling under UK conditions.

The project introduced several technical firsts for the team, including the use of bifacial panels, which required a revised stringing and layout strategy to optimise both front and rear irradiance collection. Careful consideration was given to maximise the bifacial benefit without compromising the core tracking performance. Additionally, use of high quality pyranometers on this small site allows accurate measurement of irradiance, to validate generation performance. On the ground, installation had to account for the realities of a working livestock farm. Wiring and trenching required thoughtful routing to avoid disruption. After some initial introductions, the trackers and sheep have got on especially well, combining no permanent shading of the grass yet a sheltered spot on hot days. These insights have since shaped Corrie's guidance for agricultural installations across similar rural sites.

Outcomes

The installation of six Latitude40 trackers at Our Cow Molly has delivered impressive results. Below is a testimony from the owner:

"From the data that we've got so far, about 50% more electricity per panel than if they were static. So it's a massive amount more electricity just by always facing the sun. But the other advantage for us is that we get power early morning and late evening, whereas your traditional solar panel just gets it mostly midday, so it's really extended that window of power for the farm."

This wider generation profile is especially valuable for farms like Our Cow Molly, where onsite loads are spread throughout the day – from early milking sessions to evening refrigeration and processing. By better matching production with demand, the trackers help reduce imported electricity and support more efficient energy use.

From an ecological perspective, the tracker design has multiple environmental advantages:

- Because the panels are in motion, no single patch of ground is permanently shaded — unlike large fixed-tilt arrays.
- Rainfall is more evenly distributed, supporting soil health and avoiding erosion or dry zones.
- The setup allows for continued grazing and land use, preserving the flexibility of the site.

The system is also a highly visible sustainability asset. The trackers are viewed daily by hundreds of visitors and are frequently discussed during farm tours and educational events. Their presence has helped raise awareness of solar in agriculture, and Corrie has received significant interest from other farmers and landowners.

Local Benefits

The trackers help the farm reduce its reliance on grid electricity, cutting emissions and increasing its renewable self-sufficiency. By matching energy generation to the farm's daily demand, the system supports a cleaner, more resilient local operation — allowing dual use of grazing land. The installation contributes directly to decarbonising food production in the region, serving as a working example of sustainable agriculture in practice.

Community Benefits

As a public-facing farm with thousands of annual visitors, Our Cow Molly plays an important educational role in showing what clean energy can look like in real-life settings. The trackers sit beside the car park and are accompanied by an information board that explains how they work and why they matter. This visibility sparks curiosity, promotes climate awareness, and positions the farm as a local leader in renewable innovation — inspiring other farmers and businesses to think differently about solar.



Watch BBC clip of the installation



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