

Rainton Farm, Castle Douglas

A dairy farm turned ice cream manufacturer in Galloway has become one of the latest Scottish farms to install an anaerobic digestion (AD) facility.

Rainton Farm's digester is currently under construction and will be in operation by early 2012. A commitment to renewable energy, organic farm status and the desire to be less vulnerable to energy and fertiliser markets all combined make installing AD an easy decision.

As a small-scale farm with around 150 cows, David and his team were concerned that they would not be able to afford AD onsite; having heard that digesters represented a significant financial outlay and were more appropriate for larger farms. However, further research revealed that AD was not outwith the farm's resources and in fact would bring a range of benefits to the farm.

David explained: "Finding a small-scale digester that was appropriate for our farm was a bit tricky. They're more widely available in Europe than in the UK. We wanted to install the whole system for under £200,000, which most people will tell you is impossible.

"We worked with Marches Biogas to find the right system for us, at a price we could afford. Instead of installing a completely new structure we're converting the existing slurry tower into a digester, which has cut down on costs. For small farms, converting existing structures makes AD much more affordable; it's definitely the affordable solution.

"AD makes sense as it turns common farm waste into two useful products - gas and digestate. We already have a turbine and solar panels on the farm and we'll be using the biogas from AD to generate electricity and supply hot water and also make the AD process self-sustaining. I'm extremely keen on the digestate which will be produced as part of the process. It's a highly effective fertiliser without the price tag attached.

"Like all farms in Scotland, we've faced financial pressures over the past 20 years. We're doing as much as we can to remain financially independent. AD suits our green credentials, but it also makes financial sense. We'll save on energy costs and perhaps gain money back from the Feed In Tariff or by selling on Renewables Obligation Certificates. The AD process also turns our slurry

from a nasty smelly pollutant into an effective fertiliser, without the smell, or the cost! It's a big initial investment but a wise one."

The Scottish Rural Development Programme (SRDP) granted financial assistance of 60% of the projected cost to Rainton Farm, which will be repaid over four years. Once the digester is in operation, it is estimated that it will generate over 200Mw per year. David and his team are already investigating using the surplus hot water produced by the electricity generator to heat polytunnels on the farm, allowing them to grow and sell more fresh produce at their organic farm store.

Visit www.creamogalloway.co.uk for more information on Rainton Farm and its dairy.