

CASE STUDY

Grantstown Hall
Dairy Farm
Tipperary - Ireland

Cost-effective and sustainable energy solution for Dairy Farm

Dairy farm herd size: 270

Biomass solution: DairyPod® milking parlour wash-down boiler system

Installation: June 2015

Background

Charles Crosse, owner of Grantstown Hall Dairy Farm located in the Golden Vale, an area renowned for dairy production, currently milks a herd of 270 cows. His objective is to economically wash-down his milking parlour equipment with water heated to a high temperature, twice daily. Originally having used an expensive electrical immersion heating system to heat the vast amounts of water required for the wash-down of milking parlour equipment, Charles found that he struggled to produce enough water heated to a sufficient temperature for the post-milking wash-down in both the morning and evening. His electrical immersion system was costly to run, particularly during the day, at a daytime rate of €0.17/kWh. Charles decided to look into a more sustainable and cost-effective alternative.

A Biomass Solution

After thoroughly researching his options, Charles decided to install a Woodco DairyPod®. The DairyPod® is a unique, standalone high-temperature boiler, designed specifically for dairy farms, which can produce large amounts of hot water at 95°C for the wash-down of milking equipment.

The DairyPod® includes a self-cleaning 18kW Woodco E-Compact wood pellet boiler with an integral fuel store. The boiler is fuelled by sustainable and carbon-neutral wood pellets, for cost-effective and eco-friendly heating. It can heat a 1000l stainless steel tank of water from 6°C to 85°C in just 4 hours in the summertime.

The DairyPod® was installed without any disruption to the heat supply on the farm.



Grantstown Hall Estate



producing enough hot water for milking larger herds.
The Woodco DairyPod® won the Best Environmental Sustainability Initiative at the World Dairy Innovation Awards 2017.



Remarkable Cost Savings

Charles now has copious amounts of hot water at his disposal throughout the day, **at a cost of only €0.053/kWh**. Charles currently buys pellets at €234/tonne. The cost of running the DairyPod® is significantly less than that of the electrical heating system, even at the night-time rate of €0.09/kWh.

An added benefit of the DairyPod® is that the owner has access to the Online Web Portal for **remote monitoring and generation of performance reports**. Charles was shocked to learn from these reports that he was using 960 litres of water per cycle, twice a day – amounting to almost 700,000 litres per year. The water was coming from the mains supply, which was also very costly. He is now taking measures to install a system to refine water from the well on his farm, for further savings.

At the time of installation, Grantstown Hall Dairy Farm milked a herd of 230 cows. Since then, Charles has increased the size of his herd to 270 cows, and he intends to continue to increase. The DairyPod® is capable of

About Woodco Energy:

We are “The Biomass Boiler People”. We design, manufacture and support a wide range of biomass boilers on the market, including commercial, condensing, MicroCHP and Waste to Energy Biomass boilers.

Contact us for more information on the Woodco DairyPod® or on Biomass energy solutions.



Woodco DairyPod® and fuel store on the Grantstown Hall Dairy Farm

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