



E3120 Turbine Proving to be an Excellent Investment for Jonathan Sharp of Tewitt Hall Farm



Award winning dairy farmer, Jonathan Sharp, takes full advantage of natural wind resources on his generational family farm, Tewitt Hall Farm, in Oakworth, Yorkshire.

After installing a phone mast on his land to earn additional revenue for the farm, Jonathan began to ponder other ways he could generate additional revenue streams for the 200 acre, 125 pedigree Holsteins farm that his family has kept since 1947. In being an avid ASDA dairylink member, Jonathan joins in with ASDA's carbon footprint auditing initiatives. In completing a carbon emissions audit, the audit pointed out that one way of reducing his carbon emissions

was to look at a wind turbine especially as Jonathan's site was equipped with excellent wind resources. The Asda Dairylink groups discussed wind turbines and other alternative green energy in depth and then Jonathan decided to install a wind turbine to not only reduce emissions but to attain an additional income stream and massively reduce his current electricity bills. Jonathan's first step in reducing his carbon emissions again after discussion in the Asda groups was to install Heatime to reduce age at first calving and secondly to install a slurry separator to reduce fertilizer use. Upon implementation of these two ideas, Jonathan began his search to find the right wind turbine for his farm.

KEY HIGHLIGHTS

- Award winning dairy farmer erects Endurance 50kW wind turbine and reduces his electricity bill by £500 per month, where the income from the turbine is the equivalent of keeping an additional 125 cows on the farm!
- First 5 months of production generated more than 100,000kWhs of electricity.
- First 13 months of production generated 260,000kWhs, the turbine is averaging ~20,000kWhs per month.
- "We'd heard good things about the Endurance machine, including its ability to make best use of the wind available ... it has the best power curve in its class and came highly recommended from a number of existing users."
- Jonathan Sharp on his Endurance E3120 50kW wind turbine

Tewitt Hall Farm rises to nearly 1200 feet above sea level and the site has an annual average wind speed of 6.3m/s making it ideal for a wind turbine. Jonathan passed on installing a 20kW wind turbine as the economics of connecting this to the National grid did not add up. Instead he chose an Endurance E3120 50kW machine. The E3120 would not only generate enough electricity to power the farm, but it would also

generate excess energy that could be sold to the grid which meant additional revenue for Jonathan. Jonathan was in touch with Carter Jonas, a property consultant firm, who actually recommended both the Endurance turbine and Earthmill, an Endurance dealer. Jonathan only saw one other turbine before he decided to select an E3120. **“We’ve heard good things about the Endurance machine, including its ability to make best use of the wind available. It has the best power curve in its class and came highly recommended from a number of existing users”** Jonathan explains.

Jonathan applied for planning permission for his E3120 in July of 2011, and was granted permission in November 2012. Changes to the original planning submission such as switching from 2 turbines to 1, changing the siting location of the turbine, and not being able to carry out a bird survey until spring of 2012 were all factors that lengthened the typical 8 month planning process to 18 months. Earthmill installed the turbine on November 18, 2012 and the turbine was officially commissioned on November 27, 2012. Within the first two months of operation the turbine produced 57,000kWhs and within the first five months it produced 100,000kWhs. Now, a full year into production, the turbine has surpassed 225,000kWhs which is enough electricity to power 69 homes for a year or the equivalent of producing 49,241 newspapers. In its first year of operation, the turbine has also offset an impressive 98,000kgs of carbon emissions.

Jonathan invested £300,000.00 for his turbine project, where the



turbine cost £245,000 with an additional £35,000 for substations, national grid connection, and the construction of a road that was required. Jonathan also has taken advantage of the Feed In Tariff rate of 25p per kWh, in doing so, he saves £500 a month from his electricity bill given all the additional income. Given his initial investment, the earnings he receives from the FIT, and the reduction of his monthly electricity bill, Jonathan is looking at a 5 year payback period on his investment.

“After that, it will continue to earn a good income for the farm for at least another 15 years ... the turbine is also being used to power the milking parlour and farmhouse

which has helped to reduce our electricity bill by approximately £500.00 per month” Jonathan says.

Jonathan keeps track of the turbine’s progress via ERIC, a system that allows E3120 owners to remotely monitor their turbine’s performance online in real time. Jonathan even checks the readings on his mobile phone, something that has become a minor obsession for him. He states, **“It is nice to be able to show people what the turbines doing and how many houses needs it has produced. It was especially nice to be able to keep an eye on it from the other side of the world when on holiday in Argentina in early 2013!”** Now that is green energy in action!