

TAKE A SWING AT REDUCING YOUR CARBON FOOTPRINT

By Clive Collier



Climate change is increasingly becoming a concern not just to governments, but to businesses and individuals. For the last two years within the UK we have experienced a lack of traditional summer weather and have instead had high winds and severe rain leading to floods in numerous areas.

While the mild winters have benefited golf clubs, the unsettled summers have not, leading to reduced revenue and difficulties in course maintenance.

The extreme changes occurring throughout the world, such as the severe droughts in Australia, floods in India, and more frequent hurricanes are hard to ignore, and the scientific evidence from such bodies as the Intergovernmental Panel on Climate Change (IPCC), The Royal Society, and the United States National Academy of Sciences, has become more consistent, leading rational people to believe that our carbon emissions are at least partly responsible for climate change.

The weather has a great impact on golf club activities, so it would make good sense for clubs to try and reduce their carbon emissions, however there are many other issues facing golf

clubs today. The downturn in the global economy and looming UK recession will undoubtedly affect income over the next year and this, coupled with high energy costs, will seemingly make it difficult for clubs to address the issue of reducing their carbon footprint.

But is that actually the case?

Being more energy efficient makes sound economic sense because using less energy lowers operating costs. From an environmental perspective, it's an effective way for clubs to cut carbon emissions and, in turn, combat climate change.

Firstly, how can a club reduce its footprint? The obvious answer is to cut the amount of energy used: most clubs have irrigation systems that use pumps to distribute the water around the course and, in some cases, to extract locally available water. There are also closed loop wash down systems that are used for recycling the run off water from pressure washing the maintenance equipment, which also use pumps.

Pumps are driven by electric motors, most of which run at maximum speed at all times whether the process requires it or not, if the speed of the motors could be adjusted inline with the required

process then savings could be made.

The solution is to fit an AC drive.

An AC Drive or Variable Speed Drive (VSD) is a device which can control the speed of an electric motor. Most conventional motors run at full speed only, but a VSD equipped unit means it can run at a variable rate. This allows the motor to drive a pump or fan at a speed appropriate to the requirements of the process.

Because energy and motor speed are exponentially related, even a relatively small reduction in speed can result in a significant energy saving. Fitting an AC Drive to a motor is an attractive cost-saving project for many businesses, as it can provide quick results and a relatively short payback period.

It is often the case when irrigation systems are installed that the pumps and motors installed are over specified for the purpose and as such waste considerable energy. When this is the case, the speed of the motor can often be reduced by 40% and thereby reduce energy consumption by 78% which relates to significant cost savings and reduction in carbon emissions.

A 20% reduction in speed provides a 50% saving in energy costs.



AC drives come in a range of sizes to suit the application

AC drives come in a range of sizes to suit the application, thereby helping to keep the cost in line with its intended purpose.

AC Drives can also dramatically reduce the energy costs of air conditioning systems; many of the larger golf clubs do have air conditioning in the club house. It is of course a requirement that we actually get a summer for a change to warrant switching on the air conditioning, but for golf clubs in the hotter climates this would substantially reduce both energy costs and carbon emissions.

Further energy savings can be made where clubs have closed loop wash down systems; these systems have air blowers fitted which run 24 hours a day, seven days a week. An air blower can be replaced with a linear air pump for a relatively low cost which will result in substantial energy savings. The air blower consumes the same amount of energy as an electric fire, whereas the linear air pump consumes only the energy used by a light bulb.

There is a capital cost involved in having an AC Drive fitted to existing systems, however this is quickly paid for by the savings in energy. Furthermore the Government, being keen to

reduce emissions, has set up schemes to help businesses fund the capital cost for such energy saving devices.

The Enhanced Capital Allowances (ECA) scheme provides for qualifying capital expenditure. The Energy Technology List (ETL) specifies the energy-saving technologies that are included in the ECA scheme... this list includes both AC Drives and linear air pumps.

The scheme allows businesses to write off the whole cost of the equipment against taxable profits in the year of purchase. This can provide a cash flow boost and an incentive to invest in energy-saving equipment which normally carries a price premium when compared to less efficient alternatives.

The Carbon Trust is a private company set up by the Government in response to the threat of climate change. It offers advice on reducing CO2 emissions and has been set up to help businesses fund energy saving projects by means of Interest Free Loans for which payment could be off-set by savings in energy costs.

Energy-Efficiency Loans, from the Carbon Trust, are a cost effective way to replace or upgrade your existing equipment with a more energy efficient

version. Small or medium-sized businesses in England and Scotland, or all businesses in Wales that have been trading for at least 12 months, could borrow from £5,000 to £100,000. It is unsecured, interest free and repayable over a period of up to four years. There are no arrangement fees and the application process is straightforward.

So, with the quick return on investment, being able to offset the costs against profits made and the availability of interest free loans, is cost a real consideration? If a golf club is using pumps and motors, then it makes sense to reduce their running costs and thus reduce their carbon footprint.

To summarise, if a golf club is serious about reducing emissions, it is possible to do so without breaking the bank and, in the process, enjoy the ongoing advantage of reduced operating costs.

About the Author

Clive Collier provides marketing expertise for Environmental Green Systems Ltd, Stoke on Trent

Tel: 01270 884689
www.environmentalgreensystems.co.uk