

Empires of the sun

Due to the money that can be generated by having them, the topic of solar panels has been debated at GCMA meetings of late. **Nigel Harte** finds out why four golf clubs have had them installed in the last few months

SOLAR PANELS HAVE been much-talked about of late. First, thousands of consumers took advantage of the generous Feed-in Tariff (FiT) rates that saw property owners paid lucrative sums for generating their own electricity. Then the government slashed the scheme in half with short notice, in December the High Court ruled against that and last month the Court of Appeal deferred the High Court's decision.

What this means is that golf clubs, like any business, can still benefit from FiT payments (currently 21 pence per kWh for solar panel generated electricity on installations below 4kW, 16.8p for installations with four to 10kW of capacity, 15.2p for installations with 10 to 50kW of capacity, 12.9p for installations with 50 to 250kW of capacity and 8.5p per kWh for anything above 250kW – although these figures may only be around for a few more months). Most golf clubs have installed systems ranging from 10 to 100kW.

One that went for a smaller system is Coventry Golf Club, which cut its electricity bills by 25 per cent, and will be paid approximately £56,000 over the next 25 years by the government for doing so, after it installed a 16-panel 3.6kW solar PV construction on its clubhouse roof.

The club, which has also brought in LED light sources and low energy compact fluorescent for the clubhouse entrance, occupancy detectors for the offices and improved metering throughout the clubhouse, carried out an energy audit prior to the work, and

will receive £1,500 per year until 2036 as part of the FiT scheme.

"Coventry Golf Club undertook a complete survey of energy usage in all areas of the clubhouse and greenkeepers' compound," said Phil Weaver, PGA professional at the club. "Here at Coventry Golf Club we believe that we have a responsibility to manage the golf course using environmental best practice. We have demonstrated perfectly how modern technologies can generate cost savings without impacting on the manner in which we go about our daily club life.

"From an environmental standpoint, this has been hugely beneficial as well as delivering very substantial short and long-term cost savings. Understandably in these economically challenging times, golf clubs nationwide are focusing on all cost centres. To me, helping to save the planet while saving money at the same time is an absolute 'no-brainer'."

The system will save five tonnes of CO2 from being emitted into the atmosphere per year. Brian Smithers, business development director at Rexel UK, which installed the panels, said: "Coventry Golf Club is a perfect candidate for solar paneling because of all the natural light. The lack of shade on the roof provided an ideal environment for the photovoltaic solar panel array, not only reducing the club's carbon footprint but also generating long-term revenue."

For Coventry Golf Club, saving money was important, but helping the environment was a major consideration as well. The club was also one of the



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first golf clubs in the UK to sign up to the Golf Environment Organisation's (GEO) certification programme.

"We are increasingly aware of critical issues such as chemical usage on the golf course and our own club's carbon footprint," said Weaver. "We've set up a three-year programme called Project 2012, which demonstrates to the members that we can reduce our dependencies on consumable usage and chemicals such as fungicides and pesticides.

"There has been a great interest from club members because when you play golf you are surrounded by nature; if

“What we produce we use and thus do not buy at 14.3p per unit. We sell what we do not use at 3.1p per unit and we receive the original FiT rate. The installation should pay for itself in nine years and produce £30,000 of profit in 25 years”

we can improve the general environment of the golf course which we co-habit with nature, it is good for all.

“From an ecology perspective I think it’s important to take a more proactive role because I’m sure that at some stage bureaucrats in Europe are going to look at golf clubs and say why do you need so much land to play your sport and what are you doing with it? And when they do pose the question we’ve got to come up with a pretty solid answer, but I for one am confident we can, because we are a responsible sport and we do look after our land conscientiously.

“My club members have embraced the whole concept. If we can do our best for the environment and be more efficient in the way we run our club operation and at the same time save money– I can’t see any negatives. It’s a win-win situation.”

Outlane Golf Club on the outskirts of Huddersfield also invested in photovoltaic solar panels recently. “Donations to the club were used to invest in solar panels and the FiT returns have been ring-fenced for ground improvements at the golf course,” said Trevor Pickles, a director at the club.

“I was an early investor in solar panels on my home and so knew how the FiT worked and the financial benefits of it. The weather here is fine



for the panels as they work on daylight and not beating sun, so the results are not surprising to me.

“We use a significant amount of electricity during the day, so virtually all of the generated power is used within the club, meaning we don’t need to buy it from the national grid.

“Solarlex installed 9.6kW of solar modules on the clubhouse. They also installed systems for some of the members and have even sponsored a number of our competitions.

“The microgeneration certification scheme [MCS] documentation was speedy and enabled us to get the FiT tariff application forms completed and returned within days of the install being completed [the installer must be MCS-certified in order to receive FiT payments]. Both systems have functioned well from day one and are generating well above the expected levels of electricity.”

The club has also changed all of its halogen light bulbs to LED bulbs, which should reduce electricity usage by more

The Golf Environment Awards

The 2011 Golf Environment Awards attracted participation from golf clubs all across the UK, with, according to the STRI, which ran the competition, ‘many inspirational entries’. This demonstrates that a significant number of golf clubs are currently working on projects that make a real difference to the environment and their local surroundings.

The awards highlight the ‘greener’ golf clubs in the UK and showcase the creative projects they are implementing that both enhance their golf course and have a positive impact on the environment. The winner of the ‘Overall Achievement Award’, Loch Lomond Golf Club, validates how environmental sustainability and outstanding aesthetics can work together hand-in-hand. The club has achieved exemplary results in each of the key performance areas; nature conservation, waste management, water management and turfgrass management.

- Overall Achievement Award **Loch Lomond Golf Club**
- Conservation Greenkeeper of the Year Award **Antony Wainwright, Turton Golf Club**
- Scottish Regional Award **Royal Aberdeen Golf Club**
- Northern Regional Award **Wilmslow Golf Club**
- Welsh Regional Award **Bull Bay Golf Club**
- Southern Regional Award **Thorpeness Golf Club**
- Nature Conservation Award **The Manchester Golf Club**
- Turfgrass Management Award **Aldeburgh Golf Club**
- Waste Management Award **New Malton Golf Club**
- Water Management Award **Lymm Golf Club**





The solar panel installation at La Manga Club in Spain and, inset, how the panels look from the air (they are on the buildings to the right of the resort)

than 3,000kWh per year, and this year will install a reed bed to handle wastewater from cleaning machinery.

Last year, 127-year-old Southwold Golf Club in Suffolk embarked on a similar solar project, utilising local contractor Boggis Electrical.

"The solar panels have now been fitted to our roof, facing the car park," stated club spokesman Bob Griffin.

"These are part of the club's onward investment to bring energy savings and generated income for the future."

Southwold's system has a maximum generating capacity of 4kW per hour, which is connected directly into the club's meter, via the inverter, for use in lieu of the national grid.

"At first thought, 4KW per hour sounds like a lot of supply being generated, but that is the maximum on one of those perfect sunny days," said Griffin. "But even on a bright day these panels will generate some electricity which can be viewed by watching the radio monitor within the clubhouse."

"What we produce we can use and thus not buy from our supplier at 14.3p

per unit.

Our supplier will assume that 50 per cent of what we produce, as nothing can be stored, will go back into the grid for which they will pay us 3.1p per unit.

"And we will receive the original FiT rate of 43.3p per kW/h for every kW produced over the next 25 years.

"When projections are made for the next 25 years it suggests the installation should pay for itself within nine years and produce a profit up to £30,000. And all this is with little to no maintenance to boot.

"Some members have enquired as to could our club become self sufficient in electricity if we installed more panels. In truth, yes, it is possible, although we might not get too much power in the depths of winter or at night. But actually what has been installed will on average give us 3,000kWh per year – the club currently uses 57,000kWh per year. As you can see we would need 20 times more panels which would not be cost effective under the reducing tariff for larger installations. What we have installed is the maximum size for the

highest level of tariff payable."

And while the FiT rate is exclusive to UK consumers, golf clubs around Europe are still seeing the benefits of solar technology.

La Manga Club in Spain, for instance, has introduced a raft of environmental policies at the five-star resort.

Solar power now provides between 30 and 40 per cent of the energy required for hot water and the heating of the pool in the five-star Hotel La Manga Club Principe Felipe.

It is also a source of power for the clubhouse, and, with a strong supply in a region enjoying more than 300 days of sun a year, there are plans to extend the use of solar energy across the resort.

A host of simple measures, including the introduction of aerators on taps, flow control and timer mechanisms, have also combined to reduce water consumption in the hotel and the fully serviced Las Lomas village self-catering accommodation by 60 per cent.

In addition, 70 per cent of the water used in maintaining La Manga Club's three championship golf courses and eight international standard sports pitches and numerous garden areas, is recycled water provided by a wastewater treatment plant.

Working in conjunction with meteorological monitoring, these methods combine with the high-tech irrigation system to optimise water consumption based on environmental conditions.

Madeline Adam, La Manga Club's environment manager, has been working closely with all departments to make the resort as eco-friendly as possible and is pleased with the results to date.

She said: "At La Manga Club we are aware how important it is to respect and protect our natural environment and to optimise precious resources for our own benefit and enjoyment and that of generations to come.

"It is amazing how effective simple measures can be if they are implemented properly and by bringing these in across the resort we've had a huge impact. To have reduced water consumption in the hotel and Las Lomas by 60 per cent already is fantastic and hopefully this is just the beginning. Some elements have been trialled in specific areas, such as solar energy in the golf clubhouse, and, following the successes, it makes perfect sense to extend the schemes to other areas of the resort." **GCM**



The solar panels on the clubhouse at Southwold Golf Club