



Producing an Energy Policy and Plan

Every golf club, large or small, uses a variety of sources of fuel and power all of which has to be paid for at ever increasing costs. Understanding how much you are using and spending at present, identifying possible energy saving opportunities and making improvements is best achieved by having an energy audit and producing an energy policy and action plan, one which can prioritise the most effective measures and allows for effective control and monitoring.

The following basic steps offer a good approach to tackling energy efficiency at your club:

1. Decide who will be responsible

To ensure things get done, there needs to be an 'energy leader' within the club. This need not be an onerous task and it is by no means a full-time job, but it is important to have someone to act as the club's key person for the energy plan. In a typical golf club the 'energy leader', either an employee or a member, should focus on the clubhouse and related buildings. Golf course and maintenance facility aspects are the responsibility of the Head Greenkeeper, who may decide to nominate a member from among the greenstaff. In such situations, there should be close liaison between the two energy leaders, to ensure a uniform approach to energy conservation throughout the golf club.

The duties of the energy leaders should include:

- noting examples of energy wastage
- reading meters and checking fuel bills
- encouraging others to use energy more efficiently
- regularly reporting findings back to senior club management

2. Establish the facts

How much energy are you using? To find out you need to collate invoices for electricity, gas, heating oils and/or coal, as well as all fuel bills for vehicles and golf course maintenance equipment, lubricants and hydraulic oils. Do not just check the cost, look also at the metered usage. For past periods you will have to rely on reported meter readings on invoices, but from now on also do your own meter readings.

Ideally, comprehensive resource consumption data for the last three years should be compiled in a simple spreadsheet, so you have a view on whether usage and costs are stable or changing. Key things to look out for are:

- any signs of exceptional consumption
- whether you are paying for the amounts of fuel/power you actually use
- how costs are changing over the years
- seasonal patterns to energy consumption

Key areas to review energy saving potential are some of the principal energy consuming activities: e.g. golf course irrigation, operation of maintenance equipment, heating/air conditioning and refrigeration.

3. Plan and organise

Going forward, the first step in planning is the development of an **energy policy** statement. This is important because it means the club's decision makers are consciously committed to the initiative, and the policy is a valuable tool for raising awareness among staff, members and visitors. It will also provide continuity of purpose as personnel and committee members come and go. The policy statement should provide a basic reasoning for why the club is carrying out an energy efficiency programme, and it should highlight the main objectives together with performance targets to meet these objectives.

Having defined the policy, the next step should be to draw up an **energy action plan**. This should cover the various component areas of the golf club (clubhouse, pro-shop, golf course...) and the specific energy areas (electrical, boilers, heating, lighting...). The action plan will need to identify tasks to be undertaken, their frequency, budget required, how they should be recorded and reported, and by whom.

Defining policy, setting objectives, involving members and staff, and assigning responsibilities are the core components.

3a. Pay less for your energy

Before even looking for energy conservation measures, it is worth checking whether you are paying the best price for the energy you do use. The simple exercise of reviewing your energy bills can produce some surprising results, as some golf clubs have already discovered to their benefit.

Understanding the range of tariffs and providers, and deciding what is best for you may take some effort. Some clubs have found it useful to call in an energy consultant to help them through this process.

It may also be possible to maximise use of cheaper night-time electricity units and to minimise use of winter peak-rate units. This is especially important for golf clubs which tend to be much less active during winter.

3b. Use less energy

Using less does not mean doing less – the goal here is to eliminate waste. A good start would be to conduct an ‘energy walk-round’. This should involve key members of staff and club officials, both to help identify problems and opportunities, and to ensure they feel part of the process. Conducting a walk-round is simple; just walk round your premises and note down what equipment is being used, how it is being used, and where. There is a wide range of areas of opportunity to look out for including lighting (indoors and outside), boiler rooms, offices, function rooms, kitchens, bar, cellar, locker rooms, pro-shop, store rooms. Include also the maintenance compound and irrigation pump house if you have one.

It is sensible to conduct a number of such walk-rounds at different times: e.g. during normal opening hours, when the cleaners are on duty and at off-peak times when the golf course is either little used, or unused. By doing a series of such inspections, you will gain a much better insight into how energy is being used and where the principal areas of waste are occurring.

Free Energy advice and training is available from the Scottish Government funded Resource Efficient Scotland. www.resourceefficientscotland.com

A RES visit will result in a business report covering a review of fuel tariffs and taxes as well as providing an energy saving action plan detailing proposed measures in terms of no-cost, low-cost and capital expenditure.

To help begin to prioritise energy conservation actions, it would be best to place the findings of the walk-rounds and audit advice into simple categories:

- where energy is being wasted through;
 - lack of awareness/missed opportunities
 - procedures being ignored
- where repair or maintenance work is needed to reduce energy costs
- where there is a need for capital investment to improve energy efficiency;
 - structural work to upgrade insulation, double glazing
 - replacement boilers and heating system
 - investment in renewable energy sources

It is wise to build up your energy efficiency programme, rather than trying to do too much all at once. Look for 'early-wins', simple, no-cost or low cost achievable actions that can be implemented straight away. These will offer a good platform for future initiatives and give the club membership and management confidence in the programme.

Refer to the *"Practical ways to improve Energy Efficiency in Golf Facilities (SGEG 2007)"* publication for detailed ideas for energy efficiency in golf clubs.

Key ideas include:

- The introduction of low energy lighting systems.
- Improved insulation, heating efficiency, ventilation, equipment use.
- Convert cooling/air conditioning systems to avoid use of CFCs or HCFHs.
- Switch to cleaner fuels and energy sources where available.
- Investigate potential for installing renewable energy supply units - wind and/or solar
- Use electric rather than petrol powered buggies.
- Explore energy reduction opportunities in heating and cooling, such as use of passive solar and ground source heat pumps.

It is important to also have a policy to apply a 'green filter' to all purchasing decisions, testing:

- whether product/supply is locally available
- pollution risk
- necessity of purchase in first place
- availability of spare parts
- performance quality
- packaging
- durability
- disposability
- energy efficiency
- noise of operation
- potential for reuse and recycling

Clubs could also carry out a transport audit:

- (Number of car journeys to/from club) x (distance travelled, over a sample period).
- Average number of occupants per vehicle visiting site.
- Proportion of journeys to/from site by other means of transport.
- Provide secure storage facilities for regular visitors, reducing need to drive to site.
- Provide covered and secure bicycle storage facilities.

- Extend locker provision in order to enable more players to cycle to the facility - esp. junior members.

3.c Investigate alternative energy sources

There are many alternative renewable energy sources that could be considered. See the Renewable Energy and Heat technologies documents for guidance.

4. Record, monitor and compare

Energy consumption is a continuous process. Likewise, energy conservation has to be treated as an on-going policy. It is not a one-off exercise. The goal should be continual improvement.

The best way to achieve such continuity of purpose is to have an effective recording and monitoring system. Large golf and leisure complexes may take energy efficiency so seriously that they have full time energy managers and a computerised Building Management System, enabling precise control over all heating, water, ventilation, air-conditioning and lighting.

Such sophistication is beyond the means of ordinary golf clubs but the principles are just as valid. It is essential to keep a regular check on energy consumption and bills so that you can see whether your energy efficiency measures are having any effect. If there are any sudden blips or surges in the normal pattern of energy consumption, you will be able to identify the cause and remedy it as necessary.

Another benefit from having a vigilant eye on energy consumption is that you will be able to identify and/or keep abreast with further cost saving opportunities – e.g. tariff changes and other incentive schemes.

Once you have calculated your absolute costs, it is useful to do some comparisons, both internally and with other, similar golf clubs. You can record and monitor annual energy usage by using **The R&A's online Coursetracker tool** www.coursetracker.org.uk

Internal comparisons may be year on year, seasonal or between activity centres: e.g. which is the main energy consumer within the club – the club house, or golf course maintenance? Such information can help set priorities and targets for improvement.

Further Advice and Funding:

Resource Efficient Scotland – <http://www.resourceefficientscotland.com/content/save-energy>

Energy Savings Trust - <http://www.energysavingtrust.org.uk/scotland/businesses-organisations>

The Carbon Trust - <http://www.carbontrust.com/resources>

Home Energy Scotland <http://www.energysavingtrust.org.uk/scotland/home-energy-scotland>

Historic Environment Scotland - <https://www.historicenvironment.scot/advice-and-support/your-property/saving-energy-in-traditional-buildings/>

Building Research Establishment (BRE) <http://www.bre.co.uk/>

Green Grants Machine www.GreenGrantsMachine.co.uk

Insulation grants www.FreeInsulation.co.uk

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