



INTRODUCTION

On many small farm holdings, energy used in the farmhouse can account for more than that is used in the farm business. Older farmhouses are often high energy users having solid walls, many large rooms, badly fitting windows and doors, and old boilers. Here are some key issues in farmhouse energy saving.

HEATING

1. Make sure central heating thermostats are not set too high. Reducing the thermostat setting by 1 degree will cut running costs by around 10%.
2. Check the level of loft insulation, the current recommendation is for 270mm. Increasing the level from 25mm to 270mm will give savings of between £100 - £200/annum depending on fuel type and the size of the property.
3. 20% of heat loss can be avoided by draught proofing windows and doors. Great care must be taken to ensure that vents for fires, etc. are not sealed.
4. With solid walls insulated dry lining should be considered.
5. Keeping doors and windows closed as much as practicable is very important, otherwise the heating system will be constantly working to heat up incoming air.
6. Have heating boilers serviced regularly by a qualified service engineer. When installing a new boiler take note of the primary efficiency rating of the boiler and consider using a condensing boiler.
7. Use modern controls. Electronic thermostats will give closer temperature control and lower running costs. Individual room thermostats or thermostatic radiator valves allow areas of infrequent use to be kept slightly cooler thus reducing costs. Modern time switches can provide more on/off operations and allow you to provide specific control times for each day of the week.

WATER HEATING

1. Provide local water heating systems in rooms which are a long way from the central heating boiler. The heat lost due to pipe runs can be very significant, especially where the water use is intermittent.
2. Ensure that all tanks and pipes are well lagged. Changing the tank insulation from 25mm to 80mm can save between £60 - £110 depending on the fuel used to heat the water. The insulation jacket will cost around £15.
3. Fossil fuel fired boilers become very inefficient in the summer-time when they are used just to heat water. Even though electricity might be a higher cost primary fuel it's worth considering using an immersion heater during this period particularly if an Economy 7 electricity tariff is used, as it will invariably be cheaper.
4. If water is heated mainly by electricity, use a cheap night rate electricity tariff such as Economy 7. Heating 210 litres (50 gals) of water per day on a cheap night rate tariff instead of using the normal day rate can save up to £400 per year. It can be worth investing in a larger tank if a significant amount of heating occurs during the daytime. It's also worth checking the time switch to ensure that it is synchronised to E7, just one hour out will add £80 a year to your electricity bill.



WASHING MACHINES

1. Wash with a full load as this reduces the amount of times the machine is used.
2. Use half load, low temperature, and minimum wash as often as practicable.
3. Hot fill machines can be cheaper to run if the water has been heated with a boiler on a cheap night rate electricity tariff.
4. The savings between high and low spin speeds are negligible. Using high spin speeds is recommended if the items are to be tumble dried.
5. Buy an 'A' rated machine.

TUMBLE DRYING

1. Tumble dryers are relatively expensive to run. If hanging the clothes out to dry is not an option it may be worth considering an Economy 7 electricity tariff to dry the clothes on the cheap night rate.
2. Always spin clothes prior to drying.
3. Avoid over drying.

REFRIGERATION

1. Choose a refrigerator with an 'A' energy use rating.
2. Install the fridge/freezer away from heat sources and out of direct sunlight.
3. Keep the doors closed as much as possible.
4. Allow air to circulate round the back of the appliance.
5. Check that the fridge operates at the correct temperature - about 5°C. The star rating on a freezer will indicate the operating settings.
6. Chest freezers are generally more energy efficient than upright freezers, as the cold air is retained more effectively when the appliance is opened.
7. Defrost regularly.

LIGHTING

1. Install compact fluorescents to replace tungsten bulbs (not suitable for dimming). They use about a fifth of the energy of an equivalent tungsten bulb.
2. Install dimmers where it is impossible to use suitable compact fluorescent bulbs. Dimmers reduce energy use and are also useful in prolonging the life of bulbs.
3. Switch lights off when the room is not in use. Note however that frequent on/off operation of fluorescents can shorten tube life. Generally speaking they should not be switched on/off more than once every half hour. Compact fluorescents are even less tolerant. They should not be used with infra red sensors for external lighting as the switching frequency is often too great.

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