ENERGY MONITORING, MANAGEMENT & REDUCTION PLAN 2022

STEP 1: ENERGY MONITORING

Our commitment to energy reduction starts with monitoring the energy use within the business in order to understand the amount and time of use. This then enables us to assess the potential for energy use to be reduced.

The business currently operates solely on electricity for heat and power and with a proportion of renewable wood fuel for space heating within the holiday lets. The business does not buy carbon intensive gas or oil and does not intend on doing so.

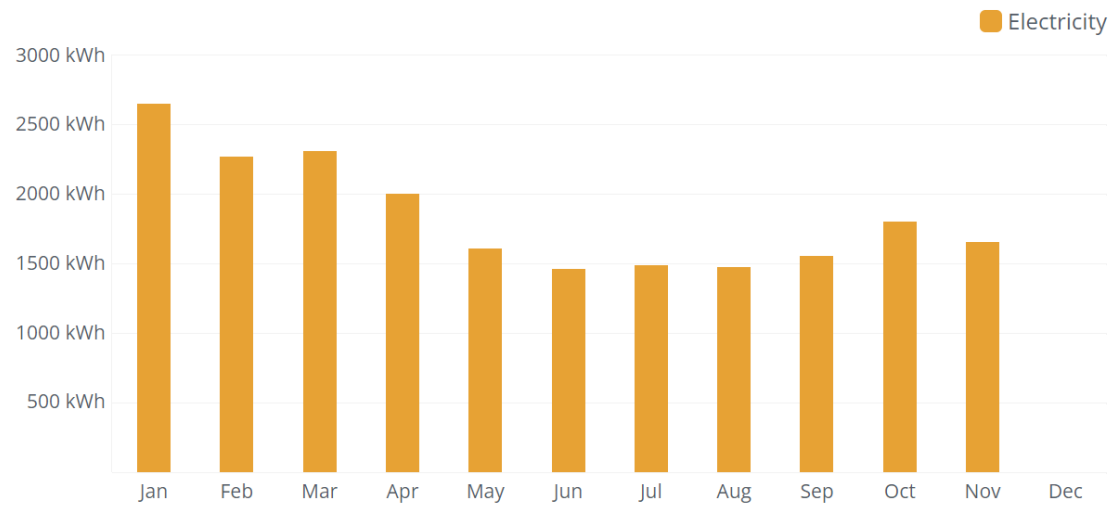

Fig 1: Electricity use during 2022 based on monthly meter readings.

Currently we take manual electricity meter readings on a monthly basis in order to understand the amount of energy being used during a period.

A Single-phase Electricity Monitor will be installed as part of our Energy Management Plan by 2023 and will allow for more detailed and regular energy readings. This will provide live data (hour-by-hour) which will be used to inform our energy management decisions moving forward. It will also enable us to assess the exact timing of peak energy use and provide a clearer understanding of where the energy is being used.

A digital LCD display will also enable guests to understand the energy they use while in residence. We will encourage visitors to conserve energy where possible.

We will also consider the installation of submeters for each property and perhaps certain circuits. This will track the energy consumption of individual buildings / appliances.

By monitoring as above we will have a clearer understanding of where our energy is being used and where it is being wasted but also a measure of the success of any improvements that are made.

STEP 2: ENERGY REDUCTION STRATEGY

Areas for improvement are likely to include;

Heating
All heaters within the holiday accommodation are thermostatically controlled and are provided with timers for use. This enables us to regulate heat within the buildings. All staff should be made aware and trained in the use of this facility.

A routine of turning off appliances and equipment when not in use will now form part of our working routine when undertaking daily inspections of the properties (between 09.00 – 10.00 each morning).

We will also consider the installation of a mechanical ventilation heat recovery system (MVHR) which could recover wasted heat and provide fresh air to the indoor environment. If appropriate this could ensure that 85% of heat within each building is retained which would reduce the energy needed space heating.

Hot Water
As with the main heater, each holiday accommodation is provided with a thermostatically controlled cylinder with timer function. All staff should be made aware and trained in the use of this facility. Research will also be undertaken to identify periods when electricity is cheaper and from renewable sources.

A routine of turning cylinders down to 40 degrees when not in use will now form part of our working routine when undertaking daily inspections of the properties (between 09.00 – 10.00 each morning).

Insulation
A well-insulated building can help to cut the cost of heating and cooling and so all of our buildings are highly insulated. This in turn reduces the electricity demand required by the electric heaters.

Improvements to insulation and draught proofing of the 4 holiday lets is to be reviewed further. Measures will include providing additional insulation to roof voids where possible, additional thermal layers to hot water cylinders, improving insulation to stove pipe penetrations and draught sealing to doors and windows.

Low energy lighting and appliances
A recent survey of light fittings and appliances has been carried out with improvements made to ensure that 95% of all light bulbs are LED or low energy. Several outside lights and security lighting requires upgrading to LED which will be undertaken during winter 2022.

All appliances are currently in good working order but any replacements should be of the highest energy efficient standard.

STEP 3: ANNUAL REVIEW
As part of ongoing energy management we will regularly review our use and practices as well as research new technologies and areas for improvement. The next update of this plan is programmed for January 2023.