

## **Eco projects at Ruislip synagogue**

### **Insulation**

The building is single storey with a flat roof and poor insulation. We calculated that a large proportion of the heat loss was through the ceiling, so we installed a lower ceiling, and insulated the void between the old and new ceilings. We also replaced all the windows with double glazed units. It was not economical to insulate the walls.

### **Heating**

The inefficient electric storage heaters were replaced a gas boiler and radiators some time ago. Later, we replaced the boiler by a condensing type, having efficiency of about 95%.

There are two heating zones controlled independently – one for a limited area used during office hours, the other for the main hall. Each has its own 7-day timer that is programmed a week in advance to suit forthcoming activities.

The main hall is used mainly at weekends, and a normal system would need to start many hours in advance to reach temperature. The boiler and radiators were therefore selected to provide 20% over-capacity at -5 °C outside, for fast heating.

### **Lighting**

Initially we replaced 30 candle bulbs 40 W each by 5 W LED bulbs, reducing consumption from 1200W to 150W. Later we replaced 10 large fluorescent lights of 100 – 120 W each by 60W LED units, saving another 400W. We have at least the same level of lighting as previously.

### **Disposable utensils**

Disposable Kiddush utensils have recently been replaced by standard ones, which are washed in a dishwasher after shabbat.