

Institute of Physics

LONDON AND SOUTH EASTERN BRANCH REMS SECTION

Visit to Renewable Energy Systems Tuesday March 22 2005

This visit has been organised by Tony Manning

The core business of R.E.S. (Renewable Energy Systems) is the design, construction and operation of wind farms. They have recently opened Beaufort Court, a new headquarters in Kings Langley, which demonstrates benefits of renewable energy.

The building itself is "re-cycled", having been built in the 1920's as the Ovaltine egg Farm, and employing the then latest technology for providing a light and warm environment for hatching the eggs. In its enhanced form full use is made of sunlight and insulation to minimise energy requirements. Electricity is provided mainly from a wind turbine, prominently seen from the M25 motorway, with additional supplies from a large area of solar panels, which also provide hot water for the premises. On hot sunny days the excess hot water is stored in an underground reservoir for winter use, retaining working temperature for up to six months.

Office heating is provided by burning a biomass crop of "elephant grass" grown on an adjacent five-hectare plot. Cooling in summer utilizes artesian well water at ground temperature to cool the incoming air, the spent warmed water being used to irrigate the biomass crop.

Our visit will commence at 11am at R.E.S., which is close to Kings Langley station, served by regular trains from Euston, and will last for about two hours. We will then enjoy lunch at a local hostelry before visiting ..

The Paper Trail

This is a new museum illustrating the history of paper production along the Gade Valley. The most famous manufacturer was John Dickinson, who supplied the famous "Basildon Bond" writing paper as well as newsprint for the Fleet Street presses. The very first imported Fourdrinier papermaking machine is displayed and may be available for demonstration.

The visit to R.E.S. is free of charge but entry to the museum, which will be specially opened for our party, is £3 each. Numbers are limited to maximum of 25. A location map will be provided.

NOTE THIS VISIT IS ON A TUESDAY.