

# Energy from crematorium

## will be used to heat leisure centre

by Martin Smith - NAFD Environmental Consultant

Redditch Borough Council is planning to use heat generated by the incinerator at the local crematorium to warm a neighbouring leisure centre.

Currently, the heat from Borough of Redditch Cemeteries and Crematorium is lost into the atmosphere, and this plan presents an environmentally friendly method of powering Abbey Stadium Sports Centre by providing 42% of the building's heating demands.

Work will commence this summer to install the equipment necessary to capture and divert waste heat from the crematorium chimney into a re-developed leisure centre, including an entirely new swimming pool. This is a first for the UK, and the Council predicts that 100% of the energy generated from the flue gas cleaning process at the crematorium will be successfully transferred by means of insulated pipes that will carry the heat away from the burial areas. The work costing £39,000 will save £14,560 per year and, by re-using waste heat in this way, the Council expects to decrease its annual CO<sup>2</sup> emissions by 4% as well as creating one of the greenest leisure centres in the country.

Redditch Borough Council accepts that the cremation process is a sensitive matter and, following consultation, found that the proposal gained widespread support, including praise for the adoption of such an initiative. The Council has been careful to explain how

the technology - already used in parts of Europe - will work.

In Stockholm, 250,000 passengers pass through the rail station each morning and Scandinavia's busiest travel hub is kept warm from the shops and restaurants as well as the body heat produced by these commuters. Until last year this energy would be lost at the end of the rush hour but, now, the heat generated inside the station is transferred into a nearby office building. Many Swedes do not realise that they are being used as a cheap, renewable energy source as they make their way to and from work each day. The railway station's ventilation system captures the body heat generated by commuters and uses it to warm water in underground tanks. This heated water is then pumped some 100 yards before being incorporated into the main central heating system of the 13-storey Kungbrohuset office building. This system is environmentally friendly and cost-effective for the organisation, which owns both the station and the newly refurbished office building.

### **FAQ: What are solar panels?**

Solar panels are used to get energy from the sun, and the use of solar power is becoming more popular as concerns increase about the depletion of fossil fuels and growing levels of greenhouse gases.

There are two main types of solar panels.

☞ Photovoltaic cells convert solar radiation into electricity. When light shines on the layers of semi-conductors in the photovoltaic cells an electric field is created. The brighter the light, the greater the flow of electricity.

☞ The sun's energy can also be used to heat water. Solar thermal energy is a relatively simple process where water heats up as it is pumped through a solar panel and into a storage tank where it will remain hot for around 24 hours or until it is used.

In both cases solar panels work during daylight hours and are usually fitted to a roof. The panels do not need direct sunlight to work and solar power will heat water on a cloudy day. The energy from solar panels is not usually enough to entirely run all the requirements



The National Association of Funeral Directors' Environmental Advisory Group will encourage and support members of the trade association in developing good practice within the funeral industry in matters relating to the environment.