UK energy conservation

New mood at ministry

THE British Department of Energy is not allowing its enthusiasm for nuclear power to overshadow its concern for energy conservation, and to prove the point it has financed a new booklet on energy conservation for distribution to schools throughout Britain.

The booklet, *Living with Energy*, is based on an exhibition produced by the Lothian Energy Group, a charity devoted to rational use of the Earth's resources. It describes measures that can be taken to

Development of combined heat and power schemes, as percentages of heat requirements

Denmark	25 per cent
Sweden	20 per cent
Finland	17 per cent
West Germany	8 per cent
The Netherlands	1 per cent
United Kingdom	1 per cent

Combined heat and power schemes are expanding in all the countries listed. From *Living with Energy* (Lothian Energy Group).

reduce energy waste in the home, and observes that national consumption could be reduced by improvements in the railway network. A pictorial feature on combined heat and power schemes is accompanied by a table showing that UK development of such schemes lags far behind that in several other European countries. On renewable energy sources, the booklet argues that fossil fuels should be preserved for essential purposes, while solar and other renewable energy sources are likely to become economically more attractive as fuel prices soar. Nuclear power, in contrast, scarcely gets a mention.

Government support for research into nuclear power does, of course, massively exceed that for renewables — but the new

Sir Sam Edwards, professor of physics at the University of Cambridge, has been appointed chief scientific adviser at the Department of Energy with effect from 17 October on a part-time basis.

Secretary of State for Energy, Mr Peter Walker, seems more inclined than his predecessor to take energy alternatives seriously. Mr Walker surprised many when, shortly after taking office, he publicly described Britain's energy conservation efforts as "apathetic". A new Energy Efficiency Office has been promised, and Mr Walker is expected to be an enthusiastic advocate.

Tim Beardsley

Graduate disputes

ACADEMICS, students and others in Britain who may have strong feelings about the way the Natural Environment Research Council (NERC) allocates its research studentships have been given an opportunity to air their views. The council has set up a committee under the chairmanship of Professor R. J. Berry, of University College, London, to review the workings of the system within the framework of drastic change in the universities.

NERC awards 300 research studentships a year, and supports graduate students in both universities and polytechnics. But the way grants are allocated has been the cause of some controversy. At issue is who decides what research areas are most deserving of support.

Before 1972, the council made quota awards to universities, which would then decide for themselves exactly how the money should be spent. The common complaint then was that many smaller universities and polytechnics were not awarded their fair share.

Under the present arrangements, NERC invites applications for specific projects from universities and polytechnics, each tied to a particular supervisor. Now the complaint is that host departments do not have enough control over what research will be done.

According to some dissatisfied potential supervisors, the projects supported simply reflect the interests of the members of NERC's training awards committees. If the departments concerned had more say, their argument goes, students would be allocated more equitably between supervisors and subjects by active researchers.

The committee will also be aware of the changing climate of opinion on how subjects for research studentships should be chosen. An influential report published earlier this year by the Advisory Council for Applied Research and Development recommended that research councils should become more selective. Berry's committee will report midway through next year, and its recommendations will be taken into account in the shareout of training awards for the academic year starting October 1985.

Tim Beardsley

Nuclear waste

Sludge sites to be sought

BRITISH Nuclear Fuels Ltd has announced that it is to spend £10 million on further reducing its discharges of plutonium and americium into the Irish Sea. The decision follows revised estimates of population dose which show that critical groups are still exposed to radiation levels which exceed recommendations for recurrent annual dose made by the National Radiological Protection Board (NRPB) and the International Commission on Radiological Protection (ICRP).

Most of BNFL's discharges come from its fuel reprocessing plant at Sellafield, formerly Windscale in Cumbria. The critical group, for the purposes of assessment, is eaters of fish and shellfish on the Cumbrian coast. The revised dose estimates were made after a reassessment of consumption patterns by the Ministry of Agriculture, Fisheries and Food and new data on gut uptake of actinides published by NRPB. The effect of the changes is to make actinides (especially plutonium) from molluscs the largest contribution to critical group dose, which in 1981 was 2.2 millisieverts per individual (effective whole body dose equivalent). The NRPB and ICRB limit for members of the public is 5 millisieverts with the recommendation that average annual dose should not exceed 1 millisievert for individuals exposed for prolonged periods. Average dose to the critical group was reduced to 1.5 millisieverts in 1982, and BNFL now expects a further reduction of this amount by a factor of five.

Discharges from Sellafield are already down to a fifth of the peak reached in the early 1970s, and with reductions now planned, the dose to the critical group will be only a few per cent of recommended limits.

Removal of waste from the discharge pipeline does not, of course, make it disappear. The result will be a concentrated sludge classified as intermediate level waste, which becomes the responsibility of NIREX, the Nuclear Industry Radioactive Waste Executive. An existing shallow land disposal site at Drigg is expected to be full before the end of the century, and NIREX will shortly announce two locations for further investigation as possible future land dumping sites. One of these will be a deep disposal site, probably a disused mine, suitable for long-lived intermediate level waste such as that from Sellafield. Several local authorities up and down the country which suspect that NIREX's preferred locations are on their territory are already preparing themselves for a fight over planning permission. However, as their number exceeds the number of sites NIREX has short-listed, many of them will be disappointed.

Tim Beardsley