

BRITAIN

● When the UK Department of Energy (DEN) published the report of its Harwell-based Energy Technology Support Unit (ETSU) on solar energy in the United Kingdom last month, it simultaneously announced the launching of a £3.6 million programme of research and development over the next four years. Full details of how the money would be allocated were not published, but now the government has given a breakdown by department of the overall annual expenditure in the various fields of solar R&D (see table, below).

The details emerged last week at a solar energy workshop organised by the government's Inter-Departmental Steering Committee on Solar Energy R&D; it was attended by some 200 people from national and local government, public and private industry, research institutes and corporations, and universities and polytechnics.

Britain's solar energy effort involves expenditure of some £6 million over four years and stretches beyond the DEN programme, which mainly involves supporting commercial exploitation of solar water and space heating technologies and £600,000 of backing for biological conversion, in which NERC, ARC and MAFF have all shown interest. ETSU meanwhile is to establish this year a register of current R&D on new energy sources and energy conservation relevant to the DEN programmes, but to preserve confidentiality the register will not be published.

The Department of the Environment (DOE) work focuses principally on solar water and space heating too, mainly through its Building Research Establishment. The Department of Industry (DOI) is involved in photovoltaic conversion and supports a solar cell group at the Royal Aircraft Establishment's Space Department, a representative from which last week urged greater coordination of support from the SRC and DOI.

The DOI now has an information officer attached to the Solar Energy Unit based at University College,

Cardiff. As for the attachment of an Energy Research Support Unit to the SRC's Rutherford Laboratory, to provide assistance and support for energy research in universities and polytechnics, this was welcomed by the outgoing chairman of the UK section of the International Solar Energy Society (UK-ISES), who strongly urged devotion by universities to development now that scientific principles were known.

Britain's international involvement is mainly through the EEC, through which international collaboration is being sought in the particular field of thermal power generation, although last week one official from the DOE's Directorate of Research Requirements personally questioned whether UK efforts in this area ought to be concentrated on large-scale plants instead of "something smaller to meet export opportunities".

EEC expenditure amounts to some £320,000 a year in direct support of work at its Joint Research Centre, and £1.75 million in indirect partial support of projects elsewhere.

● Predictably, the first British response to the saccharin developments in North America was a parliamentary question in the House of Commons. The Ministry of Agriculture, Fisheries and Food sees no reason why Britain should ban the sweetener as well, but the data and results of the research are to be examined by expert committees before any action is taken.

The stir caused by the saccharin revelations added poignancy to the publication last week of *Why Additives? The Safety of Foods*, a booklet devised and edited by the British Nutrition Foundation, which is closely linked with the food industry. Many of the scientists who wrote it are also associated with the industry. Although meant to reassure the big public, the views expressed are not as suspect as many bromides which emanate from a nervous industry since, as the booklet explains, the use of additives in this country is strictly

controlled, compounds are constantly tested, and use is based on a permitted list.

The booklet lists saccharin among additives requiring further evidence on safety and toxicology, but stresses that 80 years of widespread use is a good indication that it is "harmless", particularly as regular users include diabetics who see their doctors frequently. The main message is clear: additives make food safer, prolong storage life, allow bulk manufacture or are added for nutritional reasons.

Among additives meant to please, rather than prevent food poisoning or outrageous cost, are colourings. Man-made colourings have been more closely investigated than nature's chemical colours, but the benefits they offer are often purely aesthetic, though attempts to avoid colouring can be commercially disastrous. A former member of the Government's Food Additive and Contaminants Committee (FACC) suggested last week that colouring matter should not be added to infant foods or fresh fruit, meat or vegetables. The case of infant food is currently under review.

Anxiety also exists about the use of nitrites as antibacterial preservatives in bacon and other meat products. The authors of the booklet suggest that the risk of poisoning from botulism is a much greater hazard than any carcinogenic danger, but only experimental evidence can confirm this.

● The stark features about income and expenditure figures of the Imperial Cancer Research Fund (ICRF)—apart, that is, from their sheer size—are that the income all comes from legacies, subscriptions and donations, and the expenditure is channelled into research. Thus, according to the 1976 report published last week, just 3.3% of expenditure in 1975-76 went on administration, and 2.6% to appeals and publicity. Of the remainder—all £8 million of it—£3.9 million was spent directly on research, £2.8 million augmented the ICRF endowment and £1.3 million went on "extraordinary items".

The ICRF chairman, Professor Sir Eric Scowden, says in his report that "far-reaching changes are imminent" at the Lincoln's Inn Fields laboratories. Michael Stoker, the Director of Research, intends to retire in September 1979, and Renato Dulbecco, the Deputy Director, retires this September; the ICRF Scientific Advisory Committee is considering the future of "these vital appointments".

UK government involvement in solar R & D (£'000 p.a. on average)¹

	Solar water and space heating	Insolation data	Photochemistry/Photobiology	Photovoltaic conversion	Total
DEN	700	50	150		900
DOE	125				125
DOI	15 ²			215	230
Met. Office		50			50
SRC	35		90 ³	25	150
Total	875	100	240	240	1,455

¹The figures are a rough indication of present allocations, and give an idea of annual average departmental expenditure on the programme over the next few years.

²Includes other aspects of solar R & D, not only heating.

³With Agricultural Research Council.