international news

Get cracking and count the kilowatts

THE Central Policy Review Staff (CPRS), the Think Tank, surfaced this week to publish a report on Energy Conservation (HMSO, £1). It has already been estimated that Britain should eventually be able to save up to 10% of its forecast energy consumption and the report details how this may be most usefully achieved. With its eyes firmly on the possible, it eschews long term once-and-for-all solutions such as nuclear fusion and the efficient use of solar energy, and concentrates on the small scale short to medium term answers. The electric car is a firm favourite; and better insulation to reduce heat loss, smaller cars, greater use of diesel rather than petrol engines and a reliance on the self-regulating effect of more expensive fuel all figure as feasible ways of conserving our energy over the next 25 years.

The most important conclusion for British research is a negative one, that Britain cannot conceivably follow up fully all the possible answers. The report does, however, pick out some fields in which practical research should be stepped up. For the rest, we should concentrate on monitoring the work of other countries, mainly though not exclusively through the Energy Technology Support Unit at Harwell. One of the favourite topics for further research in Britain is the electric car. For this to be feasible it is assumed that the electricity to recharge the batteries will by then be generated mainly by nuclear power.

Three ways of powering the electric vehicle are considered: hybrid systems comprising a battery and a small internal combustion engine, fuel cells, and electric batteries. Of these, electric batteries are considered to be the most attractive. Further work is certainly justified, the report thinks, on the sodium-sulphur battery, to establish its technical viability and costing.

The only strong contender to replace fossil fuels in electricity generation is nuclear fission. Solar power and nuclear fusion, along with windmills, tidal power and magnetohydrodynamics are dismissed as too long term. But wave power is given the go ahead and the technical and economic appraisal now in progress at the National Physical Laboratory is welcomed.

One major recommendation, which has been increasingly advocated by the architectural profession, is an improvement of insulation standards in new domestic housing, and encouragement of owners of existing housing to bring their insulation up to scratch. The insulation in many British homes would not be acceptable to a modern pig farmer for his pig houses, says the CPRS, and there is therefore great scope for improvement in this direction. The Health and Safety at Work Bill, now going through Parliament, will in fact enable the insulation standards in new housing to be raised. A massive programme to educate the public is envisaged, and this will probably concentrate on the house owner's pocket.

No policy can hope to reduce energy consumption drastically in the very near future. Any measures that the government do put in hand will be unlikely to show results until after the 1980s, especially as the emphasis of the report is on voluntary and self-regulating measures. No energy police for instance. The report has no revolutionary suggestions, but points out that relatively small individual savings, as a result of, for instance, better insulation, more efficient electricity generating equipment and the use of smaller motor cars, should eventually be able to save the target 10% of energy consumption, provided that they are acted on now as a matter of urgency.

The message from the top is, therefore, that people must be made conscious of the full cost of energy and the opportunities for conservation. This should encourage them to save their own money and is preferred to the strong-arm approach. One idea for industry is that companies should be encouraged to start 'energy auditing' and even publish the results in their annual reports. The psychology of economic self interest and the dislike of public disapproval are obviously considered to be more powerful in the long run than a corps of Energy Inspectors or Temperature Police.

BRITISH Secretary of State for Energy, Eric Varley, has appointed Dr Walter Marshall (left) as Chief Scientist in the Department of Energy. Initial reactions of relief that a key post has been filled after months in caretaker hands have been tempered somewhat by the details of the new man's brief, which says specifically that Dr Marshall shall not hand out any advice on overall nuclear policy or on UK Atomic Energy Authority (UKAEA) matters unless he is specifically requested to do so by the Department of Energy with the prior agreement of the UKAEA.

Since Dr Marshall has been a member of the UKAEA for two years, and Director of the Atomic Research Establishment at Harwell since 1968, it seems on the face of things that the government is missing the point of the operation by directing his attention to energy issues excluding those which he is uniquely equipped by his experience to judge.

However, the choice of reactor for the next stage of Britain's nuclear programme has probably been made already, and whatever the department may say about Dr. Marshall's brief avoiding 'conflicts of interest', it's highly unlikely that he wasn't among the people consulted by Mr Varley, however informally, before the choice was made.