ELECTRICITY

Power for Ireland

from a Correspondent

THE forecasts of 9 per cent annual growth in electricity demand in the Republic of Ireland and a 90 per cent reliance on imported fuel oil by the end of the decade were the motivating factors behind recent studies commissioned by the Electricity Supply Board (ESB). A re-evaluation of present policy leading to a nuclear energy programme was contained in two papers given recently in Dublin before joint meetings of the Institution of Electrical Engineers and the Institution of Engineers of Ireland by Mr Sean Tinney, director of ESB Generating-Transmission and two members of the ESB project department.

To cope with an expected demand for some 3,000 MW by 1980, the ESB report advocates commissioning Ireland's first nuclear power station of 500 MW capacity at a cost of £90 million. A final decision on the timetable for nuclear power is not expected before June 1973 when the results of exploratory drilling for natural gas some 27 miles off the coast of Cork will be known.

The ESB reports present a cost analysis of current and future nuclear technologies within the reference frame of Irish national policy on electricity. They lay stress on cheap and reliable power together with a concern for public health and safety. While the initial cost of the nuclear plant (twice that of a comparable oil-fired installation) presents problems for a capital starved country like Ireland, the low fuel costs will compensate to some extent.

Security of fuel supply has become a major concern in Ireland with the complete reversal by the end of the decade of the situation prevailing in 1935 when native resources supplied 80 per cent of Ireland's electricity. Wartime restrictions on imported fossil fuels are still remembered in Ireland and nuclear fuel, with its cheapness and ease of storage, is an attractive proposition. At present only the USA sells enriched uranium in quantity, but by 1980 this bottleneck will be removed when a European gas diffusion plant becomes operational. The ESB engineers estimate that a nuclear fuel cell fabrication plant employing 200 men could be built locally for a capital outlay of only £1 million.

The ESB project report narrowed the technological choice for Eire's first nuclear station between the two standard light water reactors: the boiling water system (BWR), using a direct cycle with steam fed directly into the turbine and the pressurized water system (PWR), with an indirect cycle with steam generators interposed be-

tween primary core coolant cycle and secondary steam cycle.

At the meetings, the ESB economic analysis came under some criticism for failing to estimate the concomitant social costs of bringing nuclear technology to Ireland over and above the £90 million for the hardware. Also questioned was a lack of ESB consideration of a nearby pumped storage scheme to utilize fully the off-peak load from the nuclear station. The two case-studies, however, were felt to be important contributions to the problem of bringing nuclear power to an under-developed country.

DRUGS

Modest Proposals

from a Correspondent

A MORE reliable system for compiling data on the use and abuse of drugs was recommended by the Council of Europe's multidisciplinary conference on drug abuse, held recently in Strasbourg.

Dr Anthony May, regional director of mental health for the European division of the World Health Organization, impressed upon the conference the need for standard criteria and terminology to describe drug addiction. At present countries set their own standards based upon clinical impressions, and evidence from administrative, social and non-medical sources, and consideration is also given to the self-reporting of drug addicts themselves. The information obtained from this last source is questionable at the best of times and, in view of the fact that simple tests for type and quantity of drugs taken are not available, attempts to unravel the

history of addiction have in the past been woefully inadequate.

Dr May disagreed with the view that the use of drugs and the alienation of youth are the products of a social malaise which can only be corrected by a radical reorganization of society. He also said that the prevalence of drug addiction could not be explained in either pharmacological or psychological terms alone. Dr May considered that research into addiction should be carried out on a broad epidemiological basis that integrated all aspects of the problem.

Dr May's approach met with some criticism from the other delegates, but he countered by saying that the inclusion of family background, school and other environmental factors would enable the scientist to study the incidence of drug taking over long periods of time. In this way half truths and half myths—for example the feeling that 90 per cent of cannabis smokers "grow out of it" at twenty—could be scientifically examined.

In spite of the Council of Europe's recommendations that it should set up its own centres to investigate drug addiction it seems likely that the World Health Organization will carry out most of the research in its research centres in European countries. Dr May stressed, however, that WHO did not wish to usurp the Council of Europe's initiative and that they could, in fact, work very well together. Dr May said that WHO could organize the research and that the Council "which is very well organized for the dissemination of information" could inform the world of the results. "I can think of no reason," said Dr May, "why this should not be a very happy marriage."

RESEARCH ASSOCIATIONS

More Scrutiny

HARD on the heels of a report by the Centre for the Study of Industrial Innovation on the role of the research associations (see *Nature*, 236, 136; 1972) comes an announcement by the Conference of Industrial Research Associations that an inquiry is to be held to "examine the scope, organization, functions and methods of operation" of the associations. The inquiry is to be headed by Lord Bessborough, and will also include Lord Energlyn, Dr T. Emmerson, Dr F. E. Jones and Sir Harry Melville; it will examine, in particular, the relationship and interaction between the associations and government, industry and universities, with the object "of making suggestions to increase their industrial effectiveness".

Government aid for the research

associations has been steadily reduced since 1967-68, and the associations are under some pressure to make themselves less dependent on grants. The inquiry will be welcomed, if only because it should allow the associations to see clearly where their future lies.

The table shows the sources of finance of the research associations during 1969-70—the latest year for which figures are available.

Sources of Finance of the Research Associations 1969-70

	£ million	%
Government	5.31	32.3
Public corporations	0.78	54.8
Private industry	8.82	53.6
Overseas	1.29	7.5
Research associations*	0.24	1.4
Total	16.45	

*Sub-contracted work.