West German model predicts low growth in energy demand

ACCORDING to a recent study of the Institute for Applied Systems Research and Prognosis (ISP), West Germany is building nuclear power stations too quickly. The study estimates that by 1985 only 16,000 MW of nuclear energy will be needed in contrast to the 25,000 MW now in operation or under construction. (Only a few years ago, an official estimate put the figure at 45,000 MW).

The ISP was founded in 1975 by Professor Eduard Pestel. It evolved out of the work for *Mankind at the Turning Point*, the second report of the Club of Rome, in which most of its present members participated. The results of its German study or *Deutschland modell* will be published in April. The German government, has already seen them but has not yet reacted: only the nuclear industry has shown any interest so far. At a recent gathering of European science journalists in Hannover, however, Professor Pestel and his team made their results public.

Professor Pestel commented that the national model—embedded in the world model of Forrester and Meadows—that he and his team had built up can be used as a tool for formulating many facets of national policy. In particular, the study deals with changes in population, the changing educational system, the development of the national economy within the world economy and the demands for energy, resources, capital and labour. The specific problems of electrical generating capacity and unemployment are also considered.

The study foresees an average growth in gross national product (GNP) of

2.4% until 1984. After that growth is expected to slow down to below 2% by 1990 and then to pick up to 2.2% after 1992. The allocation of the GNP however, will remain roughly the same as now. Investments are expected to increase in the early 1980s.

A steady decline in population from the maximum of 62 million in 1972 to 56 million in 2000 is expected. Unemployment will increase during the next decade. The number of unemployed is expected to rise to two million by 1982 and to reach a maximum of four million by 1990. A major factor affecting unemployment is seen as the mismatching between qualified personnel and the types of employment available. Different scenarios are suggested to avoid constant unemployment, one of

them being a combination of three more days vacation, a reduction of the weekly working time by two hours and a 5% increase in part-time jobs.

The ISP study estimates that Germany's total primary energy input will increase from 370 million tons of coal equivalent (TCE) now to 437 million TCE in 1985. In 1973, the German government forecast for 1985 was 610 million TCE: in 1977 it was 497 million TCE. The ISP expects crude oil to remain the most important primary energy source.

In contrast to many other studies, the ISP one does not foresee a gap between energy supply and demand from 1985 to 1990. The greatest difference, however, between the ISP and government forecasts is for nuclear power. The ISP model estimates that nuclear power will be needed to generate 37 million TCE in future whereas the government estimates that 62 million TCE will have to be nuclear.

Casper Schuurin

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Camera Press

Twin towers of the nuclear plant at Wurgassen in West Germany

Ecologists lose in French elections

AMONG the losers in the French parliamentary election last week are the representatives of the various ecological groups that had joined forces under the label of *Collectif Ecologie '78*. They represent people from left and right, labourers and executives, students and scientists, who opposed civil and military nuclear programmes, urged energy saving measures and the development of new sources of energy, environmental-impact studies for public projects, and in general the re-evaluation of the goals of material growth upheld by all of the traditional parties.

Les Verts (the Greens), one of the ecological groups, polled a surprising

5% of the votes in a municipal election last year. A comparable success in the first turn of the parliamentary elections would have given them considerable political leverage, particularly if the votes could be passed on the second turn to candidates of another party.

But the ecologists had agreed not to recommend any other party candidates on the second turn because they did not want to be identified with any traditional party. The parliamentary election, however, was a much more decisive one than the municipal election and this is probably why Frenchmen voted for more business-like candidates. The Greens received only 2.2% of the total votes. They then made a mis-

take that may be held against them in the future; as soon as the results of the first turn were announced, Brice Lalonde, one of the principle spokesmen for *Collectif Ecologie '78* urged that ecologists cast their ballots for the left-wing opposition on the second turn. Other Greens protested against this breaking of the pre-electoral pledge, and the '*Collectif Ecologie*' appeared to dissolve.

On the outcome of the final vote the Greens had, as expected, no deputies and no-one knows whether they contributed to the left or the right.

The early hopes of the movement have been shattered and its future is now dubious.

Alexandre Dorozynski