short-term supply by scrapping a system of import quotas established in the 1950s. The result should be to increase imports of oil, particularly from the Middle East. For the slightly longer term, he urged Congress to clear away the legal barriers preventing construction of the Alaska pipeline and directed the Secretary of the Interior to step up the leasing of the Outer Continental Shelf for oil exploration and to allow leasing beyond the 200 metre isobath. It is estimated that the outer shelf holds about 186,000 million barrels of oil (about 45 years supply at the present rate of consumption) which is recoverable with existing technology. As for Natural Gas, President Nixon has proposed that Congress should amend the Natural Gas Act to deregulate the well-head price of gas so that the price will increase and make exploration more profitable. Finally, he urged Congress to pass the Administration's bill to regulate strip mining so that uncertainties will be removed and coal companies can get on with stripping coal from the land, and hopefully clear up afterwards. He also suggested that states should ease their rules for meeting secondary air quality standards specified by the Clean Air Act, to enable coal with a relatively high sulphur content to be burned (the secondary standards are designed to preserve general welfare by preventing damage to plants and materials) and pointed out that his budget increases the amount of money devoted to removing sulphur dioxide from stack gases and sulphur from coal.

As far as nuclear energy is concerned, President Nixon announced no new policies, but reiterated the Administration's plans to give the liquid metal fast breeder reactor high priority in the energy supply picture. Nuclear energy at present provides only about 1 per cent of energy consumed in the United States, but is expected to increase its share to about 30 per cent by the year 2000.

So much for the supply side of the equation for the next few years, but what about the demand for energy? Energy consumption in the United States has been soaring since the war, but only recently has there been serious discussion of curbing demand. President Nixon's message last week had many pious words to say about the need for energy conservation, but his two chief proposals—that an Office of Energy Conservation should be established in the Department of Interior and that manufacturers of energy consuming appliances should voluntarily label their products with respect to their energy use—are unlikely to make a big dent in demand. A more direct but less politically appealing means of reducing demand would be to increase energy prices, but the proposals announced last

week, with the exception of deregulating natural gas, are more designed to ensure adequate supplies of cheap energy.

The loudest blast of criticism directed at the energy message has focused on the fact that it provides no new money for research and development for new sources of energy. Instead, President Nixon merely reiterated that his budget for the 1974 fiscal year increases expenditures on energy research to \$772 million, up from \$642 million this year. That amount is clearly unsatisfactory to many members of Congress, however, for Senator Henry Jackson recently introduced a bill cosponsored by nearly thirty colleagues, calling for expenditures of \$2,000 million a year over ten years on non-nuclear research and development, and a task force in the House of Representatives has also called for an extra \$1,000 million a year. In reply to his critics, however, Mr Nixon said "it is foolish and self-defeating to allocate funds more rapidly than they can effectively be spent".

Other criticisms have come from environmentalists, annoyed at Mr Nixon's suggestion that the states should go easy on implementing the Clean Air Act, and critical of plans to exploit offshore oil and gas reserves. Offshore oil wells have had a bad name ever since a blowout in a rig in the Santa Barbara Channel dumped a huge oil slick on the California coastline a few years ago. But Mr Nixon said in his message that "new techniques, new regulations and standards and new surveillance capabilities enable us to reduce and control environmental dangers substantially". He also announced that he has asked the National Academy of Sciences to study the environmental effects of possible oil production in the Atlantic Outer Continental Shelf and in the Gulf of Alaska. Environmentalist groups are also disappointed that the energy message did not increase funds for development of clean sources of energy such as solar power.

Finally, as far as organization of energy policy and programmes in the Federal government is concerned, the energy message announced that President Nixon will soon send to Congress a plan for reorganizing executive departments along functional lines. This will include the setting up of a Department of Energy and Natural Resources, which will take in energy programmes of existing agencies, including the civil power programmes of the Atomic Energy Commission. The focus for the new Department's responsibilities for energy will be in the present Department of Interior, for Mr Nixon said last week that he has directed the department to strengthen its organization of energy activities and its "capabilities for overseeing and coordinating a broader range of energy research and development".

A move to strip the civilian power programme from the AEC would, of course, turn the agency into little more than a weapons supplier for the Defense Department.

FOETAL RESEARCH

An Abrupt Ban

by our Washington Correspondent

The difficult ethical question of whether the Federal government should sanction research on live, aborted fetuses which have no chance of survival for longer than a few minutes, was abruptly settled last week. Dr Robert W. Berliner, Deputy Director of the National Institutes of Health for Science, told a crowd of Catholic high school students that he knows "of no circumstances at present or in the future, which would justify NIH support of research on live, aborted fetuses". The students had descended on the NIH campus in protest two days after the Washington Post disclosed that the ethics of such research are under discussion at NIH.

Although Berliner's statement was a personal one, he made clear that it was supported by other NIH officials, including Dr John Sherwood, Acting Director of NIH. And NIH spokesmen have since confirmed that no research will be carried out on live, aborted fetuses with NIH funds, at least until a committee which is examining a range of ethical issues involved in human experimentation has had a chance to report on the matter.

The committee, which has been meeting under the chairmanship of Dr Ronald Lamont-Havers, Deputy Director of the National Institute of Arthritis, Metabolism and Digestive Diseases, should produce its recommendations in two or three months' time. But Berliner's statement and the attitudes of top NIH officials seem to have prejudged official reaction to whatever the committee recommends.

Berliner also said at his meeting with the Catholic students that the NIH is at present funding no research on live fetuses and in fact little such research has been possible in the United States for two chief reasons. First, mid-term abortions are usually carried out in the United States by saline injection which damages the foetus so that it is dead when aborted. Intact foetuses, whose hearts are beating but which are too immature to live for more than a few minutes unless kept alive artificially, are usually the result of delivery by caesarean section. The second obstacle to such research was that until the Supreme Court recently removed all legal barriers to abortion within the first three months of pregnancy and allowed considerable discretion about mid-term abortions, many states outlawed abortion completely.