• Conventional wisdom is that electrical energy consumption will continue to grow as a much faster rate than total energy consumption. But OTA notes that "intensive electrification will have a noticeable social impact and may present problems of vulnerability and reliability", and suggests that "the long-term electrification approach should be more thoroughly analysed . . . to make sure that viable alternatives are not lost by default".

OTA's analysis was performed at the request of three Congressional committees which have jurisdiction over ERDA, and which are thus in a sound position to ensure that the agency changes its policies if necessary. The plan will be updated each year and republished in January along with the President's budget request. □

Re-establishment of science office

AFTER months of agitation by prominent spokesmen for the scientific community, the House of Representatives last week approved a bill to reestablish a science policy office in the White House. The Senate is expected to follow suit early next month, and the measure could be on Mr Ford's desk soon after Christmas—almost exactly three years after Mr Nixon decided that he no longer required the services of a full-time science adviser.

The bill swept through the House to the accompaniment of a chorus of laudatory remarks about the benefits which scientists can bring to the heart of national policymaking, and it was eventually approved by the impressive margin of 362 votes to 28. According to Representative Charles Mosher, a senior republican from Ohio who helped draft the measure, the bill also has Mr Ford's wholehearted support.

Scientists are therefore well on their way back to the inner corridors of power, from which they were banished by Mr Nixon in 1973 as the result of a post-election shake up of the White House staff. Mr Nixon dismantled the Office of Science and Technology, which was established by Presidents Eisenhower and Kennedy, and conferred the title of science adviser on the already overburdened shoulders of the Director of the National Science Foundation, Dr H. Guyford Stever.

Although it was fortunate that the science policy apparatus was out of the White House when it was wallowing in the Watergate morass, there have since been numerous calls—including one from the prestigious National Academy of Sciences—for it to be brought back in. As a result, Mr Ford five months ago sent Congress a legislative proposal for a rather modest office, headed by a single science adviser.

The bill passed by the House last week conforms rather closely to Mr Ford's proposal, although a few significant changes were made along the way. The office, which would be called the Office of Science and Technology Policy (OSTP), would be limited almost exclusively to advice and analysis—it would have no direct control over scientific programs or budgets. The director of OSTP would be the President's chief science adviser, and his brief would extend over most of the federal government's scientific affairs, including military technology, the economy, foreign relations, and so on. The budget for OSTP would be about $2 million a year.

As for the manner in which the office would carry out its responsibilities, the bill merely states that the director should "develop appropriate working relationships" with the National Security Council and the Domestic Council and "maintain liaison with" all other units in the President's immediate vicinity. In other words, the office would fit into the White House power structure as best it could.

During the Johnson and Nixon Administrations, the old Office of Science and Technology lost influence largely because of growing disaffection between those presidents and the scientific community, chiefly over the Vietnam War. At the finish, Mr Nixon became agitated because he disagreed with some of the advice he was receiving from the Office, particularly from the President's Science Advisory Committee—a top level independent committee chaired by the science adviser—and he banished the science advisory functions to the bureaucratic hinterlands.

Guyford Stever

After that episode, dismayed leaders of the scientific community who felt, in the trenchant words of Nixon's last science adviser Dr Edward E. David, that "science had been downgraded in national affairs", urged that a more permanent structure be established. The fact that OSTP will be set up by legislation effectively means that it cannot be dismantled simply on a Presidential whim—Congress would have to pass a bill to dismantle it.

The bill now goes to the Senate, where it is being handled by three separate committees. Hearings are already under way, and it is expected that a final version can be produced for a vote by the full Senate in December. The chief architect of the Senate's version is likely to be Senator Edward Kennedy, whose subcommittee on the National Science Foundation has a large stake in the enterprise.

Regardless of the form in which the bill eventually emerges from Congress, speculation is already rife in Washington about who will get the job of science adviser when it is established. According to sources within Congress and the Administration, the leading prospect at present is Dr Simon Ramo, an electrical engineer who is vice chairman of the board of TRW Inc, a major defence contractor. Ramo, who is widely respected in science policy circles, could not be reached for comment last week.

• For a few days last week, worried officials of the National Aeronautics and Space Administration (NASA) tried to determine the cause of an electrical failure which threatened to abort one of the two attempts to land a Viking spacecraft on the surface of Mars next year. A battery, which will be needed during the landing operation and which will also be required to power some of the experimental apparatus on the spacecraft, failed to charge when an attempt was made on October 31. The spacecraft was then about 17.6 million km from Earth. The fault was eventually traced to the charging apparatus, and on November 5, a backup charger was used. Fortunately for the $1,000 million Viking programme, it worked, and NASA officials now believe that the batteries will perform their functions according to plan.

The first Viking spacecraft, whose batteries behaved properly when they were charged last month, is now about 24 million km from Earth. It is expected to arrive at Mars about June 19 next year, and a landing attempt will probably be made on July 4—to coincide with the United States' Bicentennial. □