

Carter aims at 20% solar energy

PRESIDENT Carter last week unveiled a package of proposed legislative measures designed, he said, towards meeting a national goal of 20% of US energy needs coming from solar and renewable resources by the end of the century.

Among the proposals are the setting up of a \$100 million solar energy bank to subsidize the interest on loans and mortgages made to home-owners and businessmen to install solar energy devices; extensive tax credits for solar installations; and the shift in emphasis from demonstration programmes of high-cost centralised solar electric technologies to "those systems which hold wider potential to displace the use of oil and natural gas".

As a result of these new programmes, the total commitment of the federal government in 1980 to solar energy will be more than \$1 billion, "a significant milestone for our country", the President said in a message to the Congress listing his proposals.

However the President's decision to fund some of the developments, including in particular the solar energy bank, from a tax he is proposing on the "windfall profits" expected by oil companies as a result of recent price increases, has been attacked by environmentalists as a political move to gather support for the proposed tax, and thus putting the solar efforts in jeopardy.

In deciding on an ambitious target of 20% solar energy by 2000 — of which one third may come from solar heating, one third from solar cells, and the rest from sources such as hydropower, windpower and the conversion of waste products into energy — the President had had presented to him a range of options, some of which placed the target much higher.

But Dennis Hayes, a research fellow at the Worldwatch Institute in Washington and a leading advocate of solar power, told a House subcommittee the previous week that the cost of the higher options, which administration officials had estimated to cost \$113 billion to reach a solar contribution of one-third of the US energy needs by 2000, had been substantially overestimated, and that in an era of fiscal frugality the high estimate had been a "kiss of death" to more ambitious plans.

The main proposals in the President's programme are:

- a 20% tax credit up to \$2,000 on new houses built to maximise the use of the sun's energy through "passive" designs
- a tax credit for commercial and multi family buildings of \$20 per million Btu saved beyond energy standards for large buildings
- increasing from 10 to 25% the tax credit for solar equipment designed to provide heat for industrial and

agricultural purposes such as drying crops

- a 15% tax credit for the purchase and installation of air-tight woodburning stoves in principal residences

- a permanent exemption from the 4-cents-a-gallon federal gasoline tax on gasohol, a mixture of 90% gasoline and 10% alcohol.

The response of environmentalist groups to the President's proposal however has been little more than lukewarm. Many of his suggestions, they point out, are already being pursued by individual legislators, while linking the solar bank to the energy trust fund, itself a highly controversial proposal in Congress, is, they claim, an unnecessarily risky move.

Many also doubt whether the amount of money which the President proposes to spend on solar energy is sufficient to head toward the goal by 2000 that he has set the nation, especially when compared to the amount of money that continues to be spent on the development of other energy resources such as nuclear energy.

"The proposed programme is a big disappointment to us; the President is talking about a minimal 5% spending on solar energy compared to other energy sources to reach an ambitious 20% goal," said Herb Epstein of the Solar Lobby, adding that his and other groups would seek to have the financial support and tax credits substantially increased as the proposals passed through Congress. □



Here comes the sun: research on solar cells using a fresnel lens at the Sandia Laboratory

Senate vetoes plan for Third World research agency

CONSERVATIVES in the US Senate, quoting the need to restrain both public spending and the growth of the federal bureaucracy, have rejected President Carter's proposal to establish a new institute for scientific and technological research related to the needs of developing countries.

The Senate's action is not necessarily fatal to the plans for the institute, provisionally known as the Institute for Scientific and Technical Cooperation (ISTC). The House of Representatives last month defeated a similar move to kill the institute; and the legislation establishing it may therefore well be restored when Senate and House conferees meet next week to resolve differences before the relevant parts of the foreign aid bill become law.

However the Senate's decision took many of the institute's supporters by surprise, being described in terms ranging from "shock" to "disaster". "The decision is certainly very disappointing, and has effectively derailed the ISTC at the present time, although we hope that it will not turn out to be decisive," Dr Ralph Smuckler, head of the institute's planning office, told *Nature* last week.

One effect has been to cast a shadow over US preparations for the United Nations Conference on Science and Technology for Development, at which ISTC is planned to be a centrepiece in the US presentation. There is some concern that, in an attempt to appease the critics, the administration might be tempted to water down the proposal and tie it more closely to existing programmes and agencies — a move which, some fear, could seriously diminish the credibility of the institute in the eyes of many Third World countries.

It has largely been in response to inadequacies in current aid programmes that the idea of an institute specifically devoted to scientific research on Third World issues has been discussed in Washington and elsewhere since the mid-1960s, most recently in a report from the Brookings Institute.

Following these discussions, President Carter announced in a speech in Venezuela last March that he was proposing setting up a new institute with two main aims: to focus scientific effort on specific problems facing Third World countries, in areas such as health, medicine and agriculture, as well as "global" problems such as energy and the environment; and to assist developing countries in establishing their own research capabilities as a necessary step towards modernisation.

The principle of working towards these

two objectives has received wide support from virtually every sector of the US scientific and political community. The main point of dispute, however, has been over appropriate procedures, and specifically the extent to which such activities should be tied to the policy directions of other institutions.

The administration has argued publicly that although ISTC will be conceived as part of an overall development assistance strategy, the existence of a council of advisers to the ISTC's director will provide sufficient autonomy; and, privately, that anything giving greater Third World involvement in decision-making — along the lines, for example, of Canada's International Development Research Center — would fail to gain Congressional support.

During last week's debate, the Senate rejected an amendment proposed by Senator Adlai Stevenson to increase the institute's autonomy by making the directors responsible to a board of directors. Although this proposal has been widely supported in the academic community, the administration claimed that it would weaken the links to other development efforts.

Supporters of the bill had spent considerable time putting their case against the Stevenson proposal. In doing so, it turned out that they had paid insufficient attention to the threat from the other direction, namely a growing conservative constituency in the Congress pledged to cut public expenditure and the federal bureaucracy.

These were the forces that provided support for an amendment from Senator Dennis Deoncini, a Democrat from Arizona, proposing that the legislation setting up the proposed ISTC be removed entirely from the International Development Assistance Act for 1980.

"At a time when the American people are themselves struggling to make ends meet, because of spiralling inflation and the beginnings of what promises to be a substantial recession, we can ill afford another well-intentioned but expensive agency to study and coordinate the problems which are all too depressingly familiar," Senator Deoncini said.

Although the funding requests associated with the institute were not great — the administration is initially asking for an additional \$25 million to support the institute's activities in the first year, most of its budget resulting from the transfer of research projects under way in the Agency for International Development (AID) — it would subsequently devour tax dollars at an ever-increasing rate, he said. If the new agency was a response to shortcomings in AID, then improvements should be made in AID, rather than creating a "whole new bureaucracy".

Senator Deoncini was joined by Senator Robert Dole of Kansas, who referred to reports appearing in the

national press that the United Nations currently holds a substantial amount of operating funds in low-interest bank deposits. "We do not need to solve another social problem by throwing more money at it — particularly at a time when similarly destined money is presently being wasted," he said.

Supporters of the administration proposal replied to such charges by claiming that the ISTC would considerably increase the effectiveness of US aid efforts, but in the end their arguments failed to carry sufficient weight; and the amendment rejecting the institute from the aid bill was agreed by 58 votes to 42 — a margin which is said to have taken even the amendment's supporters by surprise.

"It was essentially a conservative vote, with people in the middle whose support we had previously been counting upon

arguing that the line on spending had to be drawn somewhere, and choosing this as the issue on which to do it," one administration official told *Nature* last week.

The precise fate of ISTC will not be known until representatives of the House and the Senate meet in the near future to negotiate over their differences on the foreign aid bill, in order to come up with a form that will be acceptable to both sides and can therefore be signed into law. The hope is that the conferees will agree to keep the institute in, possibly in return for cuts elsewhere.

But the restoration of funds is by no means certain. As one Washington lobbyist said last week: "Congress seems to have gone crazy this year in its desire to cut the budget; and the things that are easiest to cut are the things that are related to overseas." □



Mutual applause: Carter and Brezhnev after the SALT treaty

SALT warning on MX missiles decision

ALTHOUGH urging support for the Strategic Arms Limitation Treaty recently signed by President Carter and President Brezhnev in Vienna, the Arms Control Association has warned that the benefits of the treaty will be undermined by the administration's decision to proceed with research and testing of a new generation of mobile missiles, known as MX.

In a statement released last week in Washington, the board of directors of the association say that, despite the closing of US intelligence bases in Iran, it considers the SALT II treaty to be adequately verifiable — a central issue of debate in the US Senate — and urges its ratification without substantive change.

However the ACA also expresses concern at the implications of the administration's recently announced plans to proceed with the design, development and deployment of the new MX missiles — possibly housed in and launched from underground trenches or

from holes on a "shell-game" principle — as a response to the increasing accuracy of Soviet weapons.

Criticising the lack of controls over increasing accuracy of ICBMs the ACA also says that "Deployment of more land-based, silo-destroying missiles will threaten nuclear stability and erode the basis of SALT further if they are emplaced in mobile basing modes which multiply potential targets, forcing an adversary to programme additional warheads for targets which, in fact, contain no missiles."

The statement says that the problem of silo vulnerability is "largely hypothetical from an operational standpoint", and argues that deployment of the MX and similar systems by the USSR "will pose a far greater danger to American security, and to the SALT process and its accomplishments, than does the current prospect of a hypothetical Soviet attack on American land-based missiles." □