



Department of Energy
Washington, D.C. 20585

March 25, 1982

REPORT OF HEARING

COMMITTEE: House Science and Technology, Subcommittee on Natural Resources, Agriculture Research and Environment, and Subcommittee on Investigations and Oversight

MEMBERS PRESENT: D--Co-Chairmen Scheuer and Gore, Reps. Volkmer and Shamansky
R--Reps. Carney, Walker and Sensenbrenner (briefly)

WITNESSES: See Witness List Attached

SUBJECT: Joint Hearing on Carbon Dioxide and the Greenhouse Effect

SUMMARY

The hearing opened on a derogatory note toward DOE's budget cut of its CO₂ program, but ended on a much more appreciative note after hearing the Department's witnesses.

Brief opening remarks by members included:

Scheuer--World will pay a dreadful price by inaction (because of budget cut)

Gore--Amazed that the Administration has decided to substantially cut this extraordinarily perplexing problem budgetarily.

Shamansky--Problem should be referred to as "a microwave oven effect--we are getting cooked".

Carney-- Have to take into account not one, but two problems-- the critical evidence of increased CO₂, and the painful return to economic recovery.

Walker--How frequently must we confirm the problem before we take action.

The first witness, Professor Calvin, said that recent new evidence is giving us early warning signals that the greenhouse effect is, in fact, taking place, and we must not wait too long to act or it will be too late. The best way to avoid the problem is NOT put CO₂ in the air. We must turn away from fossil fuel and toward

solar and nuclear power. Too much dependence, however, on nuclear power will give us even larger problems. He argued that the solar energy budget should be doubled or tripled and spent on an all out program of research on solar photosynthesis--learning how plants take the sun's energy and turns it into carbons--first sugar, then energy. If we knew the secret to this process we could have an unending energy source without polluting the air.

Following the testimony, a discussion was had on the need to increase the biomass program; and gather more data on climatic changes by setting up data gathering stations globally.

Mr. Hansen testified that he believes a high priority should be given to establishing a program for continuous monitoring of the total and spectral solar irradiance. Other research tasks should be directed toward trace gases, global cloud properties, heat storage and transport by the ocean, and ice sheet properties. These studies also should be adequately funded so that the substantial time required to build and develop competent and effective research teams does not delay progress.

Mr. Kukla reported on the decrease of pack-ice around Antarctica, the connection of these findings on CO₂ concentration, and needed research on these and related topics. He suggested that there already is an indication that the increased concentration of carbon dioxide at present levels may be influencing the climate system. More data needs to be gathered and climate models improved before a reliable prediction of future climate will be possible.

During discussion it was agreed that the greenhouse effect is real but that there are still areas of uncertainty as to what the actual effect will be and thus further research is needed.

Dr. Kane and Mr. Koomanoff gave a concise picture of the Department's CO₂ Research Program which include such goals and objectives as: improve our knowledge of the carbon cycle; improve our estimates of future atmospheric CO₂ and the effects on climate; develop and verify methods for detection of climate change, as well as the indirect effects; and to develop strategies and define options.

Scheuer complimented the witnesses on an impressive and thoughtful presentation, adding that there were obviously professional and knowledgeable people involved, but pointedly wondered how such a program could be maintained with a third of the budget deleted. He asked about the time frame for the availability of the research base, and was told that DOE would get back with him in about two months.

All formal statements, except that of Prof. Calvin, is on file.

Action Officer:
Dotty Curlee
252-2773