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Global Climate Change Questions from Congress 2 of 2

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ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

MAJORITY (202) 225-5074
MINORITY (202) 225-5051
TTY (202) 225-6852

May 1, 1998

BY FACSIMILE

The Honorable Janet Yellen
Chair
Council of Economic Advisers
Old Executive Office Building
Washington, D. C. 20500

Dear Chair Yellen:

This letter follows up on the March 13, 1998 letter to you in which the Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs raised questions about the Administration's global warming policies and the potential impact of the Kyoto Protocol on the U.S. economy. Not only has my Subcommittee not received any response to that letter, but also your staff has indicated that they have not even begun to draft any answers.

This unexplainable delay is impeding my Subcommittee's effective oversight of these matters. When the Subcommittee conducted its first hearing on global warming policies last week, all of the federal agency witnesses indicated that you are the Administration's voice on the likely economic consequences of the Kyoto Protocol. It is, therefore, both astounding and unacceptable that the Council has not provided any information to date, not even concerning the testimony you presented on March 4, 1998 before the House Commerce Committee.

As you know, the Subcommittee plans to conduct another hearing on these issues in May and has invited you to testify. Therefore, it is crucial that we receive your responses before the hearing. Please contact Larisa Dobriansky, Senior Counsel, at (202) 225-4407, no later than Tuesday, May 5, 1998, with a schedule for expeditiously submitting the requested information.

Thank you in advance for your cooperation with respect to this request.

Sincerely,

David McIntosh

David M. McIntosh
Chairman
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

cc: The Honorable Dan Burton
The Honorable John Tierney

United States Senate

COMMITTEE ON
AGRICULTURE, NUTRITION, AND FORESTRY
WASHINGTON, DC 20510–6000
202–224–2035

April 6, 1998

Ms. Janet Yellen
Chairperson
Council of Economic Advisors
Old Executive Office Building
Room 314
Washington, D.C. 20502

Dear Ms. Yellen:

The following questions have been submitted for response on the record from the Senate Agriculture Committee hearing on March 5, 1998 regarding the Kyoto Treaty on Climate Change. Please respond to each and return to the committee by Friday, April 29, 1998 to the attention of Chris Salisbury, Hearing Clerk. Should you have any questions regarding this matter please have your staff contact Chris Salisbury at (202)224-7187.

Sincerely,

Dick Lugar

Richard G. Lugar
Chairman

RGL/csc

QUESTION TWO

Issue: Misrepresentation of the implementation costs of the Kyoto Protocol by industry groups.

Goal: Give Ms. Yellin an opportunity to explain why the predictions of industry are false.

Question: Ms. Yellin, a study by the American Farm Bureau estimates 25 to 50 percent increases in energy costs for farmers due to actions to reduce greenhouse gases. Your estimates are significantly less. **How do you reconcile the Administration's numbers with the doomsday reports we are hearing from industry?**

McIntosh IV

ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

2157 RAYBURN HOUSE OFFICE BUILDING

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MAJORITY (202) 225–5074
MINORITY (202) 225–5051
TTY (202) 225–6852

March 13, 1998

BY FACSIMILE

The Honorable Janet Yellen
Chairman
Council of Economic Advisers
Old Executive Office Building
Washington, D.C. 20500

Dear Chair Yellen:

The Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs is conducting oversight of the Administration's global climate change policies and its initiatives to jump-start U.S. efforts to achieve the Kyoto Protocol greenhouse gas emissions reductions targets.

Pursuant to the Constitution and Rules X and XI of the United States House of Representatives, please provide the Subcommittee with detailed information in response to the questions in sections A and B of the attached inquiry, to the extent that they are applicable to your agency, and the questions in sections C through E. In responding to this inquiry, please restate each question and subpart with each of your answers, and follow the attached definitions and instructions concerning the production of records.

Please provide your responses to the written questions and requests for production of records not later than 12 noon, April 7, 1998 to the Subcommittee in Room B-377 Rayburn. In addition, please contact Larisa Dobriansky, Senior Counsel, at (202) 225-4407 as soon as practicable to coordinate the timely production of the information to the Subcommittee.

Thank you in advance for your attention to this request.

Sincerely,

David McIntosh

David M. McIntosh
Chairman
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

cc: The Honorable Dan Burton
The Honorable John Tierney

Enclosure

Questions Regarding Global Climate Change Policies and Initiatives

A. Budget Information and Performance Measures

1. Please provide a table with Fiscal Year (FY) 89 - FY 99 historical budget authority for your agency for the various components of the President's "Climate Change Technology Initiative," including the previous "Climate Change Action Program/Plan" and any other new or previously authorized Research and Development (R&D) herein (except for the U.S. Global Change Research Program included in Question 3 below). For each component, please indicate each specific budget account, the specific legislative authority (including the specific statute, the section citation, and the language of the section) for the program, and a brief description of the program.

2. In Section 2 ("Programmatic Details") of OMB's February 2, 1998 handout, "Climate Change Technology Initiative - 1999 Budget Briefing Materials," please provide the following information associated with each paragraph description in which your agency has been funded or is requesting funding: the associated funding in FY 97, FY 98, and FY 99. Also, for each paragraph, for the requested funding in FY 99, please provide evidence of any accomplishments from the FY 93 - FY 97 funding, if any. Lastly, for each paragraph, please indicate any program performance measures for the requested funding, and, for each such measure, please provide data for the 1990 base year and annual data for the most recent three-year period for which data are available.

3. Please provide a table with FY 89 - FY 99 historical budget authority for your agency for the various components of the "U.S. Global Change Research Program" which were or are devoted exclusively to climate change R&D. For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and a brief description of the program.

- If funded in any of FY 93 - FY 97, please provide evidence of any accomplishments from these dollars. Also, for requested funding in FY 99, please indicate any program performance measures for the requested funding, and, for each such measure, please provide data for the 1990 base year and annual data for the most recent three-year period for which data are available.

4. Please provide a table with FY 89 - FY 99 historical budget authority for your agency for any other components of the Administration's climate change program (i.e., in addition to those included in answer to questions 1 and 2). For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and a brief description of the program.

5. For the FY 99 request, please provide a table showing what part is funding to continue initiatives funded in FY 98 or prior years and what part is brand new activity. For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and

a brief description of the program. For each brand new activity, please indicate expected requested funding annually through FY 03.

6. Please identify the full set of your agency-specific performance measures for the Administration's Climate Change proposal (besides those indicated in response to questions 2 and 3), including data for at least the 1990 base year, FY 97, FY 98, and FY 99. Also, please identify how any of your agency-specific measures (including those in response to questions 2 and 3) relate to those for any other Federal agency. Lastly, please describe any interagency efforts to identify and relate the entire set of climate change performance measures, including which agencies are involved and the names of the agency representatives.

7. Please provide a table for FY 93 - FY 97 identifying all assistance (including grants, cooperative agreements, and other transactions) and contract awards to non-profit and for-profit organizations for any climate change activity, including the date, amount of the award, name of the organization, purpose of the award, and a summary of any result(s) from the award. Please provide a copy of any final report from these awards.

B. Economic, Policy, and Legal Analyses

8. Since January 1993, has your agency participated in any interagency effort(s) relating to climate change in any of the following areas: (a) review of current legislation and/or the need for any new legislation; (b) review of current rules, any needed revisions to current rules, and/or any needed new rules; (c) production or review of any environmental data and/or analyses; (d) production or review of any cost-benefit data or analyses; and/or (e) production or review of any economic data and/or economic analyses? If so, please identify the interagency effort, its member agencies, its membership not only from your agency but also from other Federal agencies and/or any non-Federal parties, all drafts and analyses from the effort(s), and any comments from your agency on any drafts.

9. Has your agency either prepared or reviewed any environmental, cost-benefit, and/or economic data and analyses relating to the White House Initiative on Global Climate Change? If so, please provide a copy of all data, analyses, and any comments by your agency.

10. Did your agency comment on any of the draft testimony on climate change by Administration witnesses since the President's 1998 State-of-the-Union address? If so, please provide a copy of the draft testimony and any comments by your agency.

11. Has your agency suggested any alternative policy options for climate change? If so, please provide a copy of all drafts and supporting analyses and any comments from other Federal agencies on your alternatives.

12. Does your agency plan to revise any existing legislation or propose any new legislation relating to climate change (including legislation that will have the effect of reducing greenhouse

gas emissions whether or not that is the intended purpose of the legislation)? If so, please identify and describe all such initiatives, including a timetable for their development and submission to Congress. Also provide any and all legal and policy analyses regarding the applicability and availability of existing legislation to implement the Kyoto Protocol and any comments from other Federal agencies on the analyses.

13. Does your agency plan to revise any existing rules or propose any new rules relating to climate change (including regulatory actions that will have the effect of reducing greenhouse gas emissions whether or not that is the intended purpose of the regulatory action)? If so, please identify and describe all such initiatives, including any cost-benefit analysis, and a timetable for their development and promulgation. Also, provide any and all analyses that were prepared or considered of the cumulative effects on the U. S. economy and/or energy system of all or any combination of regulations that were issued since 1992, that were proposed, and that are being developed that have or will have such effects.

14. Has your agency participated in discussions or reviewed any documents relating to international emissions trading, joint implementation, and/or the Clean Development Mechanism? If so, please provide a copy of all drafts and any comment provided by your agency.

C. Dr. Yellen's Testimony before the House Commerce Committee on March 4, 1998

15. Please provide any and all analyses that support the Administration's conclusion that impacts on the U.S. economy of complying with the terms of the Kyoto Protocol "are likely to be modest." Also, explain fully how the Administration can make such a forecast responsibly when, as Dr. Yellen stated, "it is not yet possible to provide a full authoritative analysis" of the Kyoto Protocol. Among other things, Dr. Yellen noted that there is still "much that we do not know" because much has been left unresolved by this treaty (for example, implementation issues, the rules and procedures governing international emissions trading, joint implementation projects, and the Clean Development Mechanism, and future emissions reductions obligations). Moreover, Dr. Yellen asserted that, to her knowledge, " no [economic] model -- whether used inside the government or not -- has yet been set up to analyze the implications of the Kyoto Protocol, since this agreement is only a few months old. . . ."

16. In her testimony, Dr. Yellen supported the Administration's conclusion that "economic impacts are likely to be modest" with other optimistic conclusions about the effects of the Kyoto treaty "flexibility" mechanisms and U.S. electricity restructuring, and about the rate of technological progress. Please provide any and all analyses that support the following estimates:

16a. U.S. electricity restructuring "will offer approximately $20 billion in cost savings."

16b. Emissions trading among Annex I countries "can reduce the cost to the United States of achieving its targets for 2008-20012 emissions by about half."

16c. Emissions trading among a subset of Annex I countries (for example, the United States, Australia, Canada, New Zealand, and Russia) "can reduce costs by an estimated 60-70 percent." Also, based on the estimates presented in Dr. Yellen's testimony, please explain and fully document how more limited trading among this subset of countries would produce greater cost reductions than from either trading among all Annex I countries or trading with the full participation of non-Annex I countries.

16d. The Clean Development Mechanism "might shave costs by roughly another 20 to 25 percent."

16e. Overall costs "would reach roughly one tenth of one percent of projected GDP in 2010" (resource costs of achieving Kyoto targets for emissions reductions were estimated to be $7 to $12 billion per year in 2008 to 20012). Also, please explain how it is possible that compliance with the Kyoto Protocol, which has been projected by independent economists to be the most expensive environmental undertaking ever, could cost less than compliance with the recently issued U.S. air quality rules for particulate matter and ozone (the final Regulatory Impact Analysis for those rules estimated costs of $46 billion).

16f. The assumption that the rate of improvement in energy efficiency (Autonomous Energy Efficiency Index) will be 1.0 percent per year (which is greater than that assumed by the Energy Information Administration). In particular, please reconcile this assumption with the statement of the Council of Economic Advisers in its 1998 Annual Report that, "[u]ntil an emissions cap and trading system are in place, however, the economic incentive to use [technologies supported by the Administration's budget] may be low." Is the Administration assuming that such a system will be put into place in the short-term?

16g. The estimated effect on energy prices will range from "$14 to $23 per ton of carbon equivalent."

16h. "In energy-intensive sectors some employment reduction could occur, although given the very small predicted change in energy prices, impacts in most such sectors are apt to be minimal. Furthermore, a large number of jobs will be created in other sectors--many of them high-tech jobs paying high wages."

16i. As to each analysis, please indicate who prepared the analysis and provide all records of comments from other federal agencies.

17. Please provide any and all analyses that support the Administration's estimate that benefits relating to traffic congestion, highway accidents, and air pollution unrelated to climate change "could offset approximately a quarter of the resource cost of the climate change policy." As to each analysis, please indicate who prepared the analysis and provide all records of comments from other federal agencies.

18a. In her testimony, Dr. Yellen stated that, in evaluating the "likely net economic impact of the Kyoto Protocol," the Administration has "drawn upon a broad array of analytical tools" and a "wide range of models of the energy sector and economy over the next 25 years" to assess the various possible costs and non-climate benefits of the Administration's emissions reduction policy. Please specify all of the models and analytical tools that the Administration has used and describe in detail their strengths and weaknesses.

18b. According to the testimony, the Administration has relied particularly on the Second Generation Model (SGM) of Battelle Laboratories for many of its estimates. However, the Interagency Analytical Team report indicated that the SGM model "focuses on long-term transitions and measures the economy in five-year intervals," so that "it risks racing past short-term transition issues," such as GDP loss and impacts on specific industries. Specify all of the Administration's estimates that were derived by this model. Also, indicate why many of the Administration's key estimates were derived from this model? Finally, please identify the corresponding estimates derived from each model that the Administration has used in assessing the impacts of the Kyoto Protocol.

19. What are the 1990 baseline, the Fiscal Year 1997, 1998 and1998 data, and the annual outyear estimates until 2012 for the following outcome performance measures mentioned in Dr. Yellen's testimony: morbidity rates for some diseases, mortality rates for some causes, monetary damages from temperature increases, consequences from some catastrophes, traffic congestion, highway accidents, and air pollution unrelated to climate change?

20. Why does the Administration maintain that the U. S. acid rain program experience "clearly demonstrates how programs like international permit trading, joint implementation and the Clean Development Mechanism will lead firms to find cheaper ways of reducing emissions that can lead to unexpectedly low costs"? Why does the Administration believe that it is appropriate to extrapolate from that experience to the global arena? Won't the effectiveness of the international system, joint implementation, and the Clean Development Mechanism depend on different factors, such as the rules and procedures governing these mechanisms, the extent of participation by other countries, including developing countries, etc?

21a. In her testimony, Dr. Yellen stated that part of doing it smart (i.e., lowering the costs of reducing greenhouse gas emissions) under the Kyoto Protocol means "taking serious and responsible steps in the short run to prepare us to meet our obligations in the longer term." She indicated that these steps include a $6.3 billion program of tax cuts and R&D investments, industry-by-industry consultations to prepare emission reduction plans in key industrial sectors, and legislation to restructure the electrical industry. Under what authority is the Administration pursuing this unilateral executive branch course of action in furtherance of the treaty's emissions reductions targets and without Senate ratification?

21b. If the Administration is delaying the submission of the treaty to the Senate until it obtains "meaningful participation" by developing countries, doesn't that decision also require the

Administration to delay any unilateral executive branch action to address global warming until that cooperation is forthcoming?

21c. Given that the Kyoto Protocol seeks to address a global issue, isn't harmful to U.S. interests to proceed without the full participation of developing countries?

21d. Besides being unconstitutional, isn't it also premature and harmful to U.S. interests to take such unilateral actions, without ratification, when the Administration has characterized the Protocol as a "work in progress" -- a Protocol that "is not yet fully complete nor ready for the President's submission to the Senate"?

D. Cost/Benefit Analysis of the Kyoto Treaty

22a. Please provide any and all analyses that the Administration or any federal agency prepared (or had prepared) or is preparing (or is having prepared) of the costs and benefits of imposing on the U.S. the binding targets and timetables set forth in the Kyoto Protocol for reducing greenhouse gas emissions, taking into account the global implications of the way in which this agreement is structured. Also, please analyze and document the following:

22b. Whether the benefits of implementing this Protocol are justified by the costs;

22c. Evaluate the effectiveness of this agreement by comparing the marginal abatement costs of the most plausible alternative scenarios for meeting the Kyoto targets, given the way in which this agreement is structured, with the marginal costs of other reasonable alternative compliance schemes;

22d. With respect to each scenario that is analyzed, identify the assumptions used, explain any uncertainties concerning the assumptions, and examine the sensitivity of net effects to the different compliance strategies, using a range of plausible assumptions about future economic development and about fundamental climate processes;

22e. Evaluate the opportunity costs of pursuing the Administration's strategy for the abatement of greenhouse gas emissions under the terms of the treaty; and

22f. Evaluate how the benefits and burdens of complying with this treaty would be distributed on the national and household levels, describing, among other things, the disparate regional and industrial sector impacts, and the effects on different income levels.

23a. In evaluating alternative scenarios, please examine the following:

23b. Compare the economic and environmental effects of not including developing countries in the effort to reduce global emissions (with the potential for binding developed countries to even greater obligations, without limiting developing countries at all) against the effects of addressing greenhouse gas mitigation on a global scale by the international community.

23c. Compare the economic and environmental effects of complying within the timeframes set forth in the Kyoto Protocol with the effects of complying over a longer time period.

23d. Compare the impacts of reducing greenhouse gas emissions using international emissions trading, joint implementation, and the Clean Development Mechanism with the impacts of relying upon domestic emissions permit trading. In this regard, evaluate alternative international trading scenarios: trading only between Annex I countries, trading that extends to a number of "key" developing countries, and trading in which all countries are fully participating.

24. With respect to any analysis provided, please identify and explain the basis for assumptions used regarding such factors as the rate of improvement in energy efficiency, the effectiveness of market incentives in increasing the market share of fuels that emit less carbon, and economic and demographic growth. Also, explain fully any assumptions on how emissions reductions will be achieved as, for example, through the early retirement of coal plants or nuclear plant life extensions.

25. In considering the opportunity costs, evaluate the extent to which the Administration's climate change strategy will require the diversion of funds from savings and/or investments which would have provided other benefits, such as saving social security, or more funding for education, health care, etc.

26. In assessing the impacts on the U.S. of complying with the Kyoto targets and timetables, please explain in detail the potential effects on the following indicators of economic performance: gross domestic product (GDP), per capita GDP, unemployment, income and real wages, trade competitiveness, and energy prices.

27. In assessing the benefits of complying with the Kyoto treaty, please evaluate fully the potential offsetting negative effects of exempting developing countries and of "carbon leakage." Also, if the economies of developed countries experience reductions in economic growth, evaluate the impact that this will have on the ability of emerging countries with export markets to transition to more energy efficient technologies.

28. President Clinton has suggested that the U.S. economy can continue to grow under this agreement. Please indicate at what rate the Administration expects that the economy will continue to grow during the next ten to 20 years if the treaty is ratified and at what rate it is expected to grow if the treaty is not ratified.

29. Have any of the cost-benefit analyses performed by the Administration or any agency been peer-reviewed? If so, please identify the reviewers and provide their comments on all drafts of

the analyses. If not, does the Administration plan to do so? Please describe fully the steps that the Administration plans to take.

30. In connection with these cost-benefit analyses, fully explain how the baseline(s), against which costs and benefits were calculated, was determined.

31a. Please provide all records of written or oral comments from other federal agencies on each of the cost-benefit analyses that were performed.

31b. Please provide all records of comments submitted by federal agencies on Dr. Janet Yellen's draft testimony about the economics of Kyoto for the hearing before the House Commerce Committee on March 4, 1998.

32a. Given the significant economic costs projected by private sector studies, why did the Administration abandon a year and a half-long effort to develop cost estimates of the President's proposed policies to reduce greenhouse emissions?

32b. Please identify any and all private parties that are currently performing economic analyses of the Kyoto treaty or any aspect of it for the Administration. Describe their work and provide all products of their work in draft or final form.

E. International Emissions Trading

33a. Even assuming that effective rules and procedures can be developed for an international emissions trading system and for joint implementation projects and that key developing countries agree to participate, isn't there a real risk that these mechanisms could effect an enormous transfer of wealth and jobs out of this country overseas, especially to the countries of the former Soviet Union, China, India, South Korea, Brazil, and Mexico (i.e., that this system would be essentially a foreign aid program)? Some studies have estimated that more than 50% of our reductions would have to be purchased from other countries.

33b. Please provide and document estimates of the percentage of U.S. emissions reductions that might have to be purchased from other countries to minimize the costs of reducing emissions and which countries likely would be the beneficiaries.

34. What real incentives do developing countries have to participate in the international emissions trading system, which would require them to commit to mandatory reductions, when they can transfer emissions reductions credits in connection with joint implementation projects and obtain financing through the Clean Development Mechanism?

Definitions and Instructions for the Production of Records

1. When a request calls for the production of records, the Subcommittee requests all responsive records that are in the agency's possession, custody, or control through the date of the final submission of records to the Subcommittee, unless the request clearly states that the Subcommittee is only interested in records received during a particular time period.

2. Please sequentially number all records that you produce to the Subcommittee, and indicate the source of any record if the source is not accurately reflected on the record itself. Please submit all records on single-sided paper and submit an inventory of records produced if the volume is more than 100 pages.

3. To the extent practicable, please organize the records or documents in tabbed binders or folders that indicate which records are responsive to which requests for information.

4. For the purposes of this and related requests in the future, the "record" or "records" shall include any and all drafts, originals, and non-identical copies of any item whether written, typed, printed, electronically recorded, transcribed, punched, or taped, however produced or reproduced, and includes but is not limited to any writing, transcription, or recording, produced or stored in any fashion, including any and all computer entries, memoranda, notes, talking points, letters, journal entries, reports, studies, calendars, manuals, press releases, opinions, documents, analyses, messages, summaries, bulletins, e-mail messages (in hard copy and electronic forms), disks, the text of any alphanumeric messages or other electronic paging devices, briefing materials, cover sheets or routing cover sheets and any other machine readable material of any sort whether prepared by current or former officers and employees, agents, consultants or by any non-employee without limitation. "Record" or "records" shall also include redacted and unredacted versions of the same record.

ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT
2157 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6143

MAJORITY (202) [illegible]
MINORITY (202) [illegible]
TTY (202) [illegible]

March 18, 1998

<u>BY FACSIMILE</u>

The Honorable Carol Browner
Administrator
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D. C. 20460

Dear Administator Browner:

The Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs is conducting oversight of the Administration's global warming policies and its initiatives to jump-start U.S. reductions of greenhouse gas emissions prior to Senate ratification of the Kyoto Protocol. The Subcommittee is especially concerned about EPA's efforts to include in the Administration's legislative electric utility restructuring proposal provisions that would control carbon emissions.

Pursuant to the Constitution and Rules X and XI of the United States House of Representatives, please provide the Subcommittee with detailed information in response to the attached questions regarding the budget, performance measures, legislation, regulations, and analyses for these initiatives. In responding to this inquiry, please restate each question and subpart with each of your answers, and follow the attached definitions and instructions concerning the production of records.

Please provide your responses to the questions and requests for production of records not later than 12 noon, April 9, 1998 to the Subcommittee in Room B-377 Rayburn. In addition, please contact Larisa Dobriansky, Senior Counsel, at (202) 225-4407, as soon as practicable to coordinate the timely production of the information to the Subcommittee.

Thank you in advance for your attention to this request.

Sincerely,

David M. McIntosh

David M. McIntosh
Chairman
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

cc: The Honorable Dan Burton
The Honorable John Tierney

Enclosure

Questions Regarding Global Climate Change Policies and Initiatives

Budget Information and Performance Measures

PARMS/OAR OGC

1. Please provide a table with Fiscal Year (FY) 89 - FY 99 historical budget authority for your agency for the various components of the President's "Climate Change Technology Initiative," including the previous "Climate Change Action Program/Plan" and any other new or previously authorized Research and Development (R&D) herein (except for the U.S. Global Change Research Program included in Question 3 below). For each component, please indicate each specific budget account, the specific legislative authority (including the specific statute, the section citation, and the language of the section) for the program, and a brief description of the program.

PARMS/OAR

2. In Section 2 ("Programmatic Details") of OMB's February 2, 1998 handout, "Climate Change Technology Initiative - 1999 Budget Briefing Materials," please provide the following information associated with each paragraph description in which your agency has been funded or is requesting funding: the associated funding in FY 97, FY 98, and FY 99. Also, for each paragraph, for the requested funding in FY 99, please provide evidence of any accomplishments from the FY 93 - FY 97 funding, if any. Lastly, for each paragraph, please indicate any program performance measures for the requested funding, and, for each such measure, please provide data for the 1990 base year and annual data for the most recent three-year period for which data are available.

LMS/OAR

3. Please provide a table with FY 89 - FY 99 historical budget authority for your agency for the various components of the "U.S. Global Change Research Program" which were or are devoted exclusively to climate change R&D. For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and a brief description of the program.

- If funded in any of FY 93 - FY 97, please provide evidence of any accomplishments from these dollars. Also, for requested funding in FY 99, please indicate any program performance measures for the requested funding, and, for each such measure, please provide data for the 1990 base year and annual data for the most recent three-year period for which data are available.

4. Please provide a table with FY 89 - FY 99 historical budget authority for your agency for any other components of the Administration's climate change program (i.e., in addition to those included in answer to questions 1 and 2). For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and a brief description of the program.

5. For the FY 99 request, please provide a table showing what part is funding to continue initiatives funded in FY 98 or prior years and what part is brand new activity. For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and — we haven't done this

a brief description of the program. For each brand new activity, please indicate expected requested funding annually through FY 03.

GPRA

6. Please identify the full set of your agency-specific performance measures for the Administration's Climate Change proposal (besides those indicated in response to questions 2 and 3), including data for at least the 1990 base year, FY 97, FY 98, and FY 99. Also, please identify how any of your agency-specific measures (including those in response to questions 2 and 3) relate to those for any other Federal agency. Lastly, please describe any interagency efforts to identify and relate the entire set of climate change performance measures, including which agencies are involved and the names of the agency representatives.

R9/OAR/OEE/OPD

7. Please provide a table for FY 93 - FY 97 identifying all assistance (including grants, cooperative agreements, and other transactions) and contract awards to non-profit and for-profit organizations for any climate change activity, including the date, amount of the award, name of the organization, purpose of the award, and a summary of any result(s) from the award. Please provide a copy of any final report from these awards.

AVIS: there's the final repo is. who d it. What ill have + what they think

Economic, Policy and Legal Analyses

OEE

8. Since January 1993, has the Environmental Protection Agency (EPA) participated in any interagency effort(s) relating to climate change in any of the following areas: (a) review of current legislation and/or the need for any new legislation; (b) review of current rules, any needed revisions to current rules, and/or any needed new rules; (c) production or review of any environmental data and/or analyses; (d) production or review of any cost-benefit data or analyses; and/or (e) production or review of any economic data and/or economic analyses? If so, please identify the interagency effort, its member agencies, its membership not only from your agency but also from other Federal agencies and/or any non-Federal parties, all drafts and analyses from the effort(s), and any comments from your agency on any drafts.

OP ← none @ ← none @ OEE @

OEE = Lead OPD + AIR to submit response

9. Since January 1993, has EPA either prepared or reviewed any environmental, cost-benefit, and/or economic data and analyses relating to the White House Initiative on Global Climate Change? If so, please provide a copy of all data, analyses, and any comments by your agency.

include cc?

? OEE

10. Did EPA comment on any of the draft testimony on climate change by Administration witnesses since the President's 1998 State-of-the-Union address (including, but not limited to, testimony by CEA Chair Janet Yellen on the Economics of the Kyoto Protocol before the House Commerce Committee)? If so, please provide a copy of the draft testimony and any comments by your agency.

OAR OPPE OPD Lead

11. Has EPA suggested any alternative policy options for climate change? If so, please provide a copy of all drafts and supporting analyses and any comments from other Federal agencies on your alternatives.

: Lead

Daniger

12. Does EPA plan to revise any existing legislation or propose any new legislation relating to climate change (including legislation that will have the effect of reducing greenhouse gas emissions whether or not that is the intended purpose of the legislation)? If so, please identify and describe all such initiatives, including a timetable for their development and submission to Congress. Also provide any and all legal and policy analyses regarding the applicability and availability of existing legislation to implement the Kyoto Protocol and any comments from other Federal agencies on the analyses.

Lead OAR

13. Does EPA plan to revise any existing rules or propose any new rules relating to climate change (including regulatory actions that will have the effect of reducing greenhouse gas emissions whether or not that is the intended purpose of the regulatory action)? If so, please identify and describe all such initiatives, including any cost-benefit analysis, and a timetable for their development and promulgation. Also, provide any and all analyses that were prepared or considered of the cumulative effects on the U. S. economy and/or energy system of all or any combination of regulations that were issued since 1992, that were proposed, and that are being developed that have or will have such effects.

OEE OAR Lead

14. Has EPA participated in discussions or reviewed any documents relating to international emissions trading, joint implementation, and/or the Clean Development Mechanism? If so, please provide a copy of all drafts and any comment provided by your agency.

Electricity Restructuring

OAR

Poniger + OGC

15. On February 11, 1998, Under Secretary of State Stuart Eizenstat testified before the Senate Foreign Relations Committee that the Administration has "no intention through the back door or anything else, without Senate confirmation, of trying to impose or take any steps to impose what would be binding restrictions. . .until and unless the Senate of the United States says so." In light of this assurance wouldn't it be inappropriate for EPA or any other agency to recommend any legislation or propose any regulations that would place limits on carbon dioxide emissions or any other greenhouse gases before the Senate has ratified the Kyoto Protocol?

OAR

16. Is EPA presently participating in an interagency effort to draft the Administration's legislative proposal for electric utility restructuring? What other agencies are working on this proposal? Which agency is serving as the lead agency in this effort?

OAR

17. What are EPA's views about including in the Administration's legislative restructuring proposal an emissions cap and trading system to control carbon emissions even before Senate ratification of the Kyoto treaty?

OAR

18a. Recently, the press has written about and/or printed the text of two EPA memoranda. One of the memoranda, consisting of three pages, is entitled, "Environmental Provisions in Electricity Restructuring Legislation." The second, consisting of two pages, is entitled, "Electricity

Restructuring and the Environment: What Authority Does EPA Already Have and What Does It Need?" Please provide the following information regarding these documents:

OPPE

18b. Identify who prepared these two documents.

OAR

18c. Identify who requested or authorized the preparation of these documents and indicate when that occurred. The Subcommittee understands that these memoranda were presented at interagency discussions on restructuring legislation with officials of the National Economic Council. Indicate whether that is accurate.

OAR

18d. The first memorandum addresses environmental provisions that should be included in electricity restructuring legislation. This memorandum asserts the need to obtain legislative authority to establish a federal cap and trade program that would, among other things, control electricity-related carbon dioxide emissions. Without such authority, it is argued that the Administration will be unable to ensure emissions reductions at low cost and to achieve a "significant down-payment" towards reducing emissions of greenhouse gases. Indeed, the memorandum states that this "would be seen as a concrete step to move forward domestically on global warming while continuing to work for progress internationally in follow-up to Kyoto." Is this the position that EPA is taking on restructuring legislation in interagency discussions? If so, isn't the agency recommending steps to implement the Kyoto treaty prior to Senate ratification?

OAR/OPPE

18e. Please provide all assessments that the agency has prepared of potential environmental impacts of restructuring the electric utility industry.

OGC

18f. The second document, dealing with existing authority, states that "EPA currently has authority under the Clean Air Act to establish pollution control requirements for all four pollutants of concern from electric power generation: nitrogen oxides, sulfur dioxide, carbon dioxide, and mercury. Action could be taken under provisions for meeting national ambient air quality standards, addressing transboundary pollution, or setting technology-based emissions standards." Does EPA maintain that it currently has the authority to establish pollution control requirements for carbon dioxide? If so, please specify the provisions in the Clean Air Act upon which the agency is relying and provide any and all legal and policy analyses developed by EPA to support this position.

OGC

18g. If EPA does maintain that it currently has the authority to establish pollution control requirements for carbon dioxide, please indicate when the agency determined that carbon dioxide is a "pollutant," "air pollutant," or "a hazardous air pollutant" and provide any and all legal and policy analyses that the Agency has prepared or considered that support such determinations.

OAR

19. On February 12, 1998, David Doniger of EPA stated at an Air & Waste Management Association luncheon in Washington, D. C. that the agency is "trying to explore" ways to integrate reductions of particulate matter, sulfur dioxide, nitogen oxides, and carbon dioxide. He indicated that EPA is using an integrated planning model to determine how best to lower several

pollutants simultaneously. Isn't this the very approach that is advocated in the above-referenced EPA memorandum addressing electric utility restructuring legislation?

The Effects of EPA Regulatory Actions on Greenhouse Gas Emissions

20a. In his June 26, 1997 remarks to the United Nations Special Session on Environment and Development, President Clinton referred to the recently issued new and revised national ambient air quality standards (NAAQS) for ozone and particulate matter (PM) as "a positive first step" in addressing greenhouse gas emissions.

OAR/OAQPS

20b. Did the Administration consider the ancillary benefits of greenhouse gas emission reductions in setting the new and revised primary NAAQS for ozone and PM?

OGC

20c. Section 109(b)(1) of the Clean Air Act (Act) establishes that the standard for setting primary NAAQS is "requisite to protect the public health" with an "adequate margin of safety." Section 109(b)(2) of the Act provides that impacts on the public welfare (e.g., effects on climate) may only be considered in setting secondary NAAQS). Doesn't this statutory framework prohibit the Agency from considering the impacts of the new and revised standards on greenhouse gas emissions and climate change during the primary standard-setting process?

OAR/OAQPS

20d. Section 307(d)(6)(C) of the Act specifies that a promulgated rule "may not be based (in part or whole) on any information or data which has not been placed in the docket as of the date of such promulation." Did the Agency include in the docket for the ozone and PM NAAQS rules any information on the impacts of the new and revised standards on greenhouse gas emissions?

OAR/OEE input

20e. Please provide to this Subcommittee any and all records concerning the impacts of the new and revised ozone and PM standards on greenhouse gas emissions that were developed or considered by Agency staff before or during the ozone and PM NAAQS rulemaking process.

OAR
OEE lead
Pike

21. In the Regulatory Impact Analysis (RIA) for the ozone, PM, and Regional Haze rules, EPA identifies "the investments made to control greenhouse gases for climate change" as a "catalyst" for the development of innovative technologies (RIA 9-3). Presumably, EPA has concluded that future regulation of greenhouse gas emissions will reduce the costs of developing technologies to comply with the ozone and PM NAAQS. The RIA also states that: "In the international climate change negotiations, the U.S. is pursuing legally binding targets at a level considered to be 'real and achievable.' Such targets will help decrease not only [greenhouse gas], but also a variety of other air pollutants." (RIA at 9-30). These statements suggest that the Agency took into account future greenhouse gas emissions reductions (and the control technologies developed to achieve these reductions) in calculating the costs and benefits of the ozone, PM, and Regional Haze. Was this a reasonable assumption, considering that neither the Clean Air Act nor the current Framework Convention on Climate Change mandates reductions in greenhouse gas emissions?

22. EPA's Fiscal Year 1999 Strategic Plan states: "By 2000 and beyond, U. S. greenhouse gas emissions will be reduced to levels consistent with international commitments agreed upon under the Framework Convention on Climate Change (FCCC), building on initial efforts under the Climate Change Action Plan (CCAP)." The Agency's Strategic Plan further provides that: "By 2000, CCAP implementation throughout the Federal government will reduce annual U.S. greenhouse gas emissions by 75 million metric tons of carbon equivalent (MMTCE). The programs will lead to greater annual reductions of between 115 and 140 MMTCE by 20005."

OGC

Upon what legal authority is the Agency relying to implement these reductions? Please point to the specific provision or provisions of the Clean Air Act that authorize EPA to require these reductions in greenhouse gas emissions. Is EPA's objective tied to the current FCCC, which calls for voluntary action to return emissions to 1990 levels or does the agency's plan include actions aimed at reducing U.S. greenhouse gas emissions 7% below 1990 levels, as the Administration agreed to in Kyoto?

OAR/OGC Lead

23a. In March 1996, EPA promulgated New Source Performance Standards (NSPS) and Emission Guidelines (EG) for Municipal Solid Waste Landfills. [61 Fed. Reg. 9905 (March 12, 1996) (MSW Landfill Rule] In the preamble to the MSW Landfill Rule, EPA stated that : "The additional methane reductions achieved by [the control technology option selected] are also an important part of the total carbon reductions identified under the Administrations's 1993 Climate Change Action Plan." Id. at 9914. EPA further stated that, "The Climate Change Action Plan. . . calls for EPA to promulgate a 'tough' landfill gas rule as soon as possible." Id. at 9916. Please point to the provision in the Clean Air Act that authorizes EPA to consider climate change impacts in developing the NSPS and EG for MSW Landfills.

OAR

23b. EPA acknowledged in the preamble to the MSW Landfill Rule that, despite a general concern that increasing emissions of greenhouse gases could lead to climate change, "the rate and magnitude of these changes are unknown." Id. at 9917. In light of this uncertainty, what was the basis for EPA's conclusion that the MSW Landfill Rule would have beneficial impacts with respect to climate change?

OAR/OPPE-OPD

- 23c. Please provide to this Subcommittee any documents concerning the impacts of the MSW Landfill Rule on greenhouse gas emissions that were developed or considered by Agency staff during before or during the MSW Landfill rulemaking process.

OAR/OGC

24a. In the preamble to a March 1994 final rule implementing the Significant New Alternatives Program (SNAP), EPA adopted the interpretation that "global warming potential" must be considered in determining what substances are acceptable substitutes for ozone-depleting substances (ODS). See 59 Fed. Reg. 13044 (March 18, 1994). Although public commenters objected on the grounds that EPA lacked authority under Section 612 of the Act to regulate substitutes based on global warming, EPA disagreed with this interpretaiton and stated that: "[I]n October 1993, the President directed EPA through the Climate Change Action Plan (CCAP) to use its authority under 612 of the Clean Air Act to narrow the uses allowed for hydrofluorocarbons and perfluorocarbons with high global warming potential. Id. at 13049. EPA reached this conclusion even though, in the process of amending the Clean Air Act of 1990, Congress deleted authority for EPA to phase out use of substances based solely on their global warming potential. Please explain EPA's legal theory for relying upon Section 612 of the Act to regulate ODS subtitutes based on their global warming potential.

OAR/OGC

24b. How can the President's directive in the CCAP be reconciled with clear legislative intent to prohibit consideration of global warming potential in the SNAP analysis?

OAR/OGC

25. In EPA's Advance Notice of Proposed Rulemaking (ANPR) on integrated implementation of the ozone, PM, and Regional Haze rules, the Agency states that: "While the focus of control strategy integration centers around the ozone, PM, and regional haze programs, some consideration of how other programs affect these programs will need to be assessed (i.e., acid rain, climate change, stratospheric ozone, ecosystem protection, toxics). [61 Fed. Reg. 65764, 65775 (December 13, 1996)] Is EPA planning to regulate greenhouse gas emissions through this "integrated implementation" program? If so, under what specific statutory authority? Please provide all legal analyses to support such a position.

OEE contributor

OAR/OAQPS lead

26. EPA has characterized the new NAAQS for PM2.5 and ozone as an electric utility issue. In addition, EPA's proposed SIP call on Nox focuses on emissions from electric utilities. Several other proposed or contemplated regulatory initiatives--regional haze, revisions to new source review requirements, revised new source performance standards for utility boilers, and air toxics standards for electric utilities' boilers--also appear likely to require substantial emissions reductions from electric utility plants. Has EPA performed any analyses of how any of these regulatory programs--alone or in combination--will affect emissions of any greenhouse gases covered by the Kyoto Protocol? Moreover, has EPA assessed the cumulative effects of these regulations, or any combination of them, on the U.S. energy system and economy? If so, please provide all records of such analyses, including drafts, and materials explaining how the analyses where performed and by whom. Also please identify all individuals consulted in conjunction with such analyses and provide all records reflecting the date and content of such consultations.

OAR

SPPM

27a. In its proposal to require modification of SIPs to limit Nox emissions (62 Fed. Reg. 60318) (the proposed SIP "call"), EPA asserts that "on a global scale, decreases in Nox emissions will, to some degree, reduce greenhouse gases." 62 Fed. Reg. At 60374. Has EPA quantified the effect of the proposed SIP calls on greenhouse gases and/or global warming? If so, please provide copies of all records and analyses. Also, please indicate when any such analysis was performed and by whom.

OAR

27b. If EPA has performed no such quantification of the effects of the proposed SIP calls on greenhouse gases, what is the Agency's basis for asserting that one of the non-ozone benefits of the proposed SIP call will be its impact on global warming?

OEE contribute

27c. What role did global warming and other non-ozone benefits play in EPA's identification of a specific Nox-reduction program as a means of implementing the ozone NAAQS? Please identify the date(s) of any and all meetings at which the non-ozone benefits of the proposed SIP call were discussed and the identities of each participant in each such meeting. Provide all records relating to such meetings.

OAR

27d. Did EPA consider whether other options for attaining the ozone NAAQS might yield equal or greater non-ozone benefits? If so, please provide copies of any and all analyses evaluating the benefits of such alternative implementation strategies and all records regarding consideration of the benefits of such alternative strategies. Please identify all EPA staff members involved in such analyses.

OAR/OEE

28. According to an August 29, 1997 "Inside EPA" article, an EPA source "points out that EPA estimated last year that an aggressive strategy to reduce SO_2, Nox and mercury from utilities would only reduce CO_2 emissions by five to seven percent. If mercury is removed from this equation, an administration source says this percentage is likely to fall since some utilities would have undoubtedly chosen to alter their fuel mix as a way to meet an onerous mercury reduction requirement." Please provide any and all analyses that relate to the comments made in this article. Why were any such analyses performed? Are there other similar analyses available for other industry sectors?

Napolitano / Turnure

FACA Subcommittee on Energy, Clean Air and Climate Change

29a. In July, 1997, EPA announced the formation of a new subcommittee of its Clean Air Act Advisory Committee, the Subcommittee on Energy, Clean Air and Climate Change. Please provide a copy of the charter of the Subcommittee and copies of any and all records concerning the purpose or goals of the Subcommitee.

OAR

29b. Please identify all EPA staff members who are involved in supporting or working with the Subcommittee or who have attended or participated in meetings of the Subcommittee.

29c. Please explain EPA's authority to convene an advisory committee to examine climate change issues.

OAR

29d. Please discuss whether and how climate change programs and initiatives will be integrated into state implementation plans.

OAR

Climate Change Outreach Efforts

30. Please explain why the agency is sponsoring regional conferences around the country regarding implementation of the Kyoto Protocol? A brochure to one of the conferences that the agency has sponsored states that, "Annex I parties must now begin designing policies and programs to meet [the] reduction goal [of 7% below 1990 levels]." How much have you already

OEE

spent and how much do you plan to spend in Fiscal Year 1998 funds setting up or cosponsoring conferences on implementing the Kyoto treaty? How much do you plan to spend in Fiscal Year 1999?

OEE

31. Do you agree that Senate ratification is required before mandatory greenhouse gas emission reductions are implemented in states or in the U.S.? This Subcommittee understands that the Commonwealth of Massachusetts recently received a $77,000 grant from EPA to set up workshops and conferences on climate change. In a February 20, 1998 letter signed by the state's Executive Office of Environmental Affairs, Massachusetts "stakeholders" are invited to participate in the development of a Climate Change Action Plan for Massachusetts. The letter indicates that the state is "seeking a package of recommendations that could reduce Massachusetts' emissions of greenhouse gases consistent with the U.S. target adopted in Kyoto three months ago." Is EPA promoting these types of efforts or is the agency specifically instructing states that the Kyoto targets are not relevant to policy decisions, unless and until the Senate ratifies that treaty?

Early Credit Reductions

OGC/
OAR

32. On February 17, 1998, a proposal for a program to reward early greenhouse gas emissions reductions was presented to EPA's Subcommittee on Energy, Clean Air and Climate Change. In addition, since the conference in Kyoto, EPA officials have been discussing the merits of an early reductions program. They also have stated the need to develop a strategy for determining real reductions between 1998-2008 and for crediting the pre-1998 reductions that have been registered in the database established under Section 1605(b) of the Energy Policy Act of 1992 (EPAct). Under what authority is EPA proceeding to consider proposals for early reduction credits? Wasn't the Department of Energy (DOE) charged by Congress to set up a system for the voluntary reporting of greenhouse gas emission reductions? Does EPA believe that it is appropriate for it to be evaluating proposals to displace that system developed by DOE?

ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs
B-377 Rayburn House Office Building
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Facsimile Cover Letter

To: The Honorable Carol Browner

Total Number of Pages (including cover sheet) 12

Fax #: 260-0279

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Definitions and Instructions for the Production of Record

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3. To the extent practicable, please organize the records or documents in tabbed binders or folders that indicate which records are responsive to which requests for information.

4. For the purposes of this and related requests in the future, the "record" or "records" shall include any and all drafts, originals, and non-identical copies of any item whether written, typed, printed, electronically recorded, transcribed, punched, or taped, however produced or reproduced, and includes but is not limited to any writing, transcription, or recording, produced or stored in any fashion, including any and all computer entries, memoranda, notes, talking points, letters, journal entries, reports, studies, calendars, manuals, press releases, opinions, documents, analyses, messages, summaries, bulletins, e-mail messages (in hard copy and electronic forms), disks, the text of any alphanumeric messages or other electronic paging devices, briefing materials, cover sheets or routing cover sheets and any other machine readable material of any sort whether prepared by current or former officers and employees, agents, consultants or by any non-employee without limitation. "Record" or "records" shall also include redacted and unredacted versions of the same record.

McIntosh III

DEPARTMENT OF THE TREASURY
LEGISLATIVE AFFAIRS
15TH & PENNSYLVANIA AVE., N.W.
WASHINGTON, D.C. 20220

DATE: 3/13/98 PAGES TO FOLLOW: 5

TO: Michelle Jolin

FAX NUMBER: 395-6958 (395-5084)

FROM: LEGISLATIVE AFFAIRS 622-~~1900~~ 1970 (office) 622-0534 (fax)

Marne Levine

COMMENTS

Per your request. Pls call

1998-SE-003057

ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

MAJORITY (202) [illegible]
MINORITY (202) 225-5051
TTY (202) [illegible]

March 11, 1998

BY FACSIMILE

The Honorable Robert E. Rubin
Secretary
Department of the Treasury
Washington, D.C. 20220

Dear Secretary Rubin:

The Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs is conducting oversight of the White House Initiative on Global Climate Change.

Pursuant to the Constitution and Rules X and XI of the United States House of Representatives, please provide the Subcommittee with detailed information in response to the attached questions regarding the budget, performance measures, legislation, regulations, and analyses for this initiative. Please restate each question before the corresponding answer.

Please contact Subcommittee Staff Director Mildred Webber at 225-4407 if you have any questions about this request. Please provide this information not later than 12 noon, March 31, 1998 to the Subcommittee in Room B-377 Rayburn.

Thank you in advance for your attention to this request.

Sincerely,

David McIntosh

David M. McIntosh
Chairman
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

cc: The Honorable Dan Burton
The Honorable John Tierney

Enclosure

03/11/98 11:32 ☎ ☑003

Questions for Each Agency with Any Climate Change Funding

1. Please provide a table with Fiscal Year (FY) 89 - FY 99 historical budget authority for your agency for the various components of the President's "Climate Change Technology Initiative," including the previous "Climate Change Action Program/Plan" and any other new or previously authorized Research and Development (R&D) herein (except for the U.S. Global Change Research Program included in Question 3 below). For each component, please indicate each specific budget account, the specific legislative authority (including the specific statute, the section citation, and the language of the section) for the program, and a brief description of the program.

2. In Section 2 ("Programmatic Details") of OMB's February 2, 1998 handout, "Climate Change Technology Initiative - 1999 Budget Briefing Materials," please provide the following information associated with each paragraph description in which your agency has been funded or is requesting funding: the associated funding in FY 97, FY 98, and FY 99. Also, for each paragraph, for the requested funding in FY 99, please provide evidence of any accomplishments from the FY 93 - FY 97 funding, if any. Lastly, for each paragraph, please indicate any program performance measures for the requested funding, and, for each such measure, please provide data for the 1990 base year and annual data for the most recent three-year period for which data are available.

3. Please provide a table with FY 89 - FY 99 historical budget authority for your agency for the various components of the "U.S. Global Change Research Program" which were or are devoted exclusively to climate change R&D. For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and a brief description of the program.

- If funded in any of FY 93 - FY 97, please provide evidence of any accomplishments from these dollars. Also, for requested funding in FY 99, please indicate any program performance measures for the requested funding, and, for each such measure, please provide data for the 1990 base year and annual data for the most recent three-year period for which data are available.

4. Please provide a table with FY 89 - FY 99 historical budget authority for your agency for any other components of the Administration's climate change program (i.e., in addition to those included in answer to questions 1 and 2). For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and a brief description of the program.

5. For the FY 99 request, please provide a table showing what part is funding to continue initiatives funded in FY 98 or prior years and what part is brand new activity. For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and

a brief description of the program. For each brand new activity, please indicate expected requested funding annually through FY 03.

6. Please identify the full set of your agency-specific performance measures for the Administration's Climate Change proposal (besides those indicated in response to questions 2 and 3), including data for at least the 1990 base year, FY 97, FY 98, and FY 99. Also, please identify how any of your agency-specific measures (including those in response to questions 2 and 3) relate to those for any other Federal agency. Lastly, please describe any interagency efforts to identify and relate the entire set of climate change performance measures, including which agencies are involved and the names of the agency representatives.

7. Please provide a table for FY 93 - FY 97 identifying all assistance (including grants, cooperative agreements, and other transactions) and contract awards to non-profit and for-profit organizations for any climate change activity, including the date, amount of the award, name of the organization, purpose of the award, and a summary of any result(s) from the award. Please provide a copy of any final report from these awards.

8. Since January 1993, has your agency participated in any interagency effort(s) relating to climate change in any of the following areas: (a) review of current legislation and/or the need for any new legislation; (b) review of current rules, any needed revisions to current rules, and/or any needed new rules; (c) production or review of any environmental data and/or analyses; (d) production or review of any cost-benefit data or analyses; and/or (e) production or review of any economic data and/or economic analyses? If so, please identify the interagency effort, its member agencies, its membership not only from your agency but also from other Federal agencies and/or any non-Federal parties, all drafts and analyses from the effort(s), and any comments from your agency on any drafts.

9. Since January 1993, has your agency either prepared or reviewed any environmental, cost-benefit, and/or economic data and analyses relating to the White House Initiative on Global Climate Change? If so, please provide a copy of all data, analyses, and any comments by your agency.

10. Did your agency comment on any of the draft testimony on climate change by Administration witnesses since the President's 1998 State-of-the-Union address (including, but not limited to, testimony by CEA Chair Janet Yellen on the Economics of the Kyoto Protocol before the House Commerce Committee)? If so, please provide a copy of the draft testimony and any comments by your agency.

11. Has your agency suggested any alternative policy options for climate change? If so, please provide a copy of all drafts and supporting analyses and any comments from other Federal agencies on your alternatives.

12. Does your agency plan to revise any existing legislation or propose any new legislation relating to climate change (including legislation that will have the effect of reducing greenhouse gas emissions whether or not that is the intended purpose of the legislation)? If so, please identify and describe all such initiatives, including a timetable for their development and submission to Congress. Also provide any and all legal and policy analyses regarding the applicability and availability of existing legislation to implement the Kyoto Protocol and any comments from other Federal agencies on the analyses.

13. Does your agency plan to revise any existing rules or propose any new rules relating to climate change (including regulatory actions that will have the effect of reducing greenhouse gas emissions whether or not that is the intended purpose of the regulatory action)? If so, please identify and describe all such initiatives, including any cost-benefit analysis, and a timetable for their development and promulgation. Also, provide any and all analyses that were prepared or considered of the cumulative effects on the U. S. economy and/or energy system of all or any combination of regulations that were issued since 1992, that were proposed, and that are being developed that have or will have such effects.

14. Has your agency participated in discussions or reviewed any documents relating to international emissions trading, joint implementation, and/or the Clean Development Mechanism? If so, please provide a copy of all drafts and any comment provided by your agency.

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McIntosh II

ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

March 2, 1998

BY FACSIMILE

The Honorable Franklin D. Raines
Director
Office of Management and Budget
Washington, D.C. 20503

The Honorable Kathleen A. McGinty
Chair
Council on Environmental Quality
Washington, D.C. 20502

Dear Director Raines and Chair McGinty:

The Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs is conducting oversight of the White House Initiative on Global Climate Change.

Pursuant to the Constitution and Rules X and XI of the United States House of Representatives, please provide the Subcommittee with detailed information in response to the attached questions regarding the budget and performance measures for this initiative. Please restate each question before the corresponding answer.

Please contact Subcommittee Staff Director Mildred Webber at 225-4407 if you have any questions about this request. Please provide this information not later than 12 noon, March 24, 1998 to the Subcommittee in Room B-377 Rayburn.

Thank you in advance for your attention to this request.

Sincerely,

David McIntosh

David M. McIntosh
Chairman
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

cc: The Honorable Dan Burton
The Honorable Bernard Sanders

Enclosure

Questions on the White House Initiative on Global Climate Change

1. Please provide a table with Fiscal Year (FY) 89 - FY 99 historical budget authority, on an agency-by-agency basis, for the various components of the President's "Climate Change Technology Initiative," including the previous "Climate Change Action Program/Plan" and any other new or previously authorized Research and Development (R&D) herein (except for the U.S. Global Change Research Program included in Question 2 below). For each component, please indicate each specific budget account and a brief description of the program.

OMB
- For FY 93 and FY 95, please explain why the details in Table S-10 do not equal the totals in Table 6-2 in the Budget of the United States Government Fiscal Year 1996.

OMB
- For FY 97, please explain the difference between the published figures in the Budget of the United States Government Fiscal Year 1998 (estimated $183 million) and the Budget of the United States Government Fiscal Year 1999 (actual $743 million), including any reprogramming from other budget accounts.

OMB
- For FY 99, please explain why the published figures (the requested funding for key sectors) in Table 6-3 of the Budget of the United States Government Fiscal Year 1999 do not equal the total.

OMB / DOE EPA USDA DOC
- In Section 2 ("Programmatic Details") of OMB's February 2, 1998 handout, "Climate Change Technology Initiative - 1999 Budget Briefing Materials," please provide the following information associated with each paragraph description: each affected agency and, for each agency, the associated funding in FY 97, FY 98, and FY 99. Also, for each paragraph, and for each agency, please provide evidence of any accomplishments from the FY 97 funding. Lastly, for each paragraph, and for each agency, please indicate any program performance measures for the requested funding and, for each such measure, please provide annual data for the most recent three-year period for which data are available.

2. Please provide a table with FY 89 - FY 99 historical budget authority, on an agency-by-agency basis, for the various components of the "U.S. Global Change Research Program" which were or are devoted exclusively to climate change R&D. For each component, please indicate each specific budget account and a brief description of the program.

OMB
- For FY 93 actual figures for the "U.S. Global Change Research Program," please explain the differences among the published figures in the Budget of the United States Government Fiscal Year 1996 ($1531 million), the Budget of the United States Government Fiscal Year 1997 ($1319 million), and the Budget of the United States Fiscal Year 1998 ($1464 million), including any reprogramming from other budget accounts.

OMB • For FY 95 and FY 96, please explain why the details in Table 7-2 do not equal the totals in Table 6-2 of the Budget of the United States Government Fiscal Year 1996.

USGCRP IFFICE • For each agency with funding in FY 97, please provide evidence of any accomplishments from the FY 97 funding. Also, for each agency requesting funding in FY 99, please indicate any program performance measures for the requested funding and, for each such measure, please provide annual data for the most recent three-year period for which data are available.

OMB

3. Please provide a table with FY 89 - FY 99 historical budget authority, on an agency-by-agency basis, for any other components of the Administration's climate change program (i.e., in addition to those included in answer to questions 1 and 2). For each component, please indicate each specific budget account and a brief description of the program.

Q

4. Since the Government-wide Performance Plan for FY 1999 does not include any performance measures for the Administration's Climate Change proposal, please identify all government-wide and agency-specific performance measures for the Administration's Climate Change proposal, including data for at least FY 97, FY 98, and FY 99.

DOE • The Performance Plan in DOE's FY 99 Budget submission includes goals of reducing gas emissions by 5 percent in 2010 and reducing energy consumption by 25 percent in 2010. Please provide at least FY 97, FY 98, and FY 99 data on gas emissions and energy consumption to meet these goals.

EPA • EPA's FY 99 Budget includes goals of reducing emissions by 40 million metric tons and reducing energy consumption by 45 billion kilowatts. Please provide at least FY 97, FY 98, and FY 99 data on gas emissions and energy consumption to meet these goals.

DOE/EPA • Please explain whether and how DOE's and EPA's performance measures overlap — i.e., whether they relate to reductions made by only that agency's programs or by all agencies' programs in the aggregate.

SENSENBRENNER II

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON SCIENCE

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http://www.house.gov/science/welcome.htm

February 26, 1998

The Honorable John H. Gibbons
Assistant to the President for Science and Technology,
and Director, Office of Science and Technology Policy
Room 424
Old Executive Office Building
Washington, DC 20502

Dear Dr. Gibbons:

I wish to express my sincere appreciation for your testimony during the February 12, 1998 Committee on Science "The Road from Kyoto—Part 2: Kyoto and the Administration's Fiscal Year 1999 Budget Request" hearing.

Enclosed are additional questions from Members of the Committee, as well as a copy of the hearing transcript. Your responses will be published as part of the official record of the hearing. In addition to a hard copy of your answers, the Committee requires an additional copy, including any supporting graphs or charts, saved on a DOS formatted 3.5 inch diskette, in either Word Perfect, Word or ASCII text. Please send your responses to Ms. Sarah Monahan of the Committee staff. If you prefer, you may E-mail your responses to sarah.monahan@mail.house.gov.

I would appreciate receiving your responses to the enclosed questions by **Thursday, March 19, 1998.**

Also enclosed is a copy of the verbatim transcript for your review. The Committee's rule pertaining to the printing of transcripts is as follows:

> *The transcripts... shall be published in verbatim form, with the material requested for the record, as appropriate. Any requests to correct any errors, other than transcription, shall be appended to the record, and the appropriate place where the change is requested will be footnoted.*

The complete revisions to the transcripts submitted for the record must be received by Thursday, March 12, 1998, and should be sent to Ms. Sarah Monahan, Subcommittee on Energy and Environment, H2-389 Ford House Office Building, Washington, DC 20515. If you have any questions, please contact Ms. Monahan at (202) 225-9662.

The Honorable John H. Gibbons
February 26, 1998
Page two

Thank you again for making this hearing successful. Once the transcript has been completed and published, a copy will be forwarded to you.

Sincerely,

F. JAMES SENSENBRENNER, JR.
Chairman

FJS:hlw

COMMITTEE ON SCIENCE
U.S. HOUSE OF REPRESENTATIVES

Hearing
on

The Road from Kyoto—Part 2:

Kyoto and the Administration's Fiscal Year 1999 Budget Request

Thursday, February 12, 1998

Post-Hearing Questions
Submitted to

The Honorable John H. Gibbons
Assistant to the President for Science and Technology
and
Director, Office of Science and Technology Policy

Post-Hearing Questions Submitted by Chairman Sensenbrenner

"Clear and Compelling Evidence" That Human Activities Are Causing Climate Change

Q1. You also state on page 2 of your testimony that "the scientific evidence that climate change is occurring, and that human activities are playing a significant role in causing such change, is clear and compelling." However, at a recent American Meteorological Society International meeting on Global Climate Studies in Phoenix, Arizona, David Rind and Judith Lean of NASA demonstrated that about half of the observed global warming is ascribed to solar activity. These means that only about 0.5°F of the warming experienced in the last century could be due to other causes, including human activity. Are you familiar with this research, and if so, how does the interplay of solar activity affect climate? MikeM

Climate Change and Extreme Events

Q2. Your testimony on page 4 states that, "More precipitation is likely to occur in 'extreme' downpours, where large amounts of rain fall in a short period. Some areas will be threatened by increased flooding, while others will suffer through an increased incidence of drought, as continental interiors become warmer and drier." However, the 1995 IPCC report, *The Science of Climate Change*, concludes on page 336: "Except *maybe* for precipitation, there is little agreement between models on changes in extreme events [emphasis added]." And even concerning precipitation, it concludes: "*Several* models *suggest* an increase in the precipitation intensity, *suggesting* a *possibility* for more extreme rainfall events [emphasis added]." M.KeM

Do you agree with these IPCC conclusions?

Wednesday, February 4, 1998, Post-Hearing Questions Submitted to the Honorable John H. Gibbons
Page 2 of 12

Q3. With respect to your statement on page 4 that "Some areas will be threatened by increased flooding, while others will suffer through an increased incidence of drought, as continental interiors become warmer and drier," isn't it also likely to be true that some areas will have decreased flooding and decreased incidence of drought"?

Possibly, but overall ?

Documentation of 1997 Temperature Statistics

Q4. Your testimony on page 4 also states that "new results from the National Oceanic and Atmospheric Administration (NOAA) show that 1995 has been surpassed by 1997, and that nine of the last eleven years are among the warmest ever recorded (Figure 1). 1997 also shows up as the warmest year in data records maintained by the United Kingdom Meteorological Office and the NASA Goddard Institute of Space Studies, meaning that the three most comprehensive and accurate long-term surface data records all indicate continued warming of our planet."

Q4.1 Please provide a copy of NOAA report and accompanying data/statistics referred to in your statement above. Z has

Q4.2 Please provide a copy of the Goddard Institute for Space Studies/NASA confirmation and accompanying data/statistics referred to in your statement above. Hansen Web Site e-mail

Q4.3 Please provide a copy of the East Anglia University confirmation and accompanying data/statistics referred to in your statement above. Nov 1997

Q4.4 Please document your statement that "The nine warmest years of the century have occurred in the past 11 years." Karl

Land- and Sea-Based Versus Satellite Temperature Measurements

Q5. Your testimony on page 4 says that 1997 was the warmest year on record. However, the land-based temperature data upon which this claim is based do not comport with satellite data, which show a slight cooling trend (-0.05°C per decade) over the last 19 years in the layer from about 5,000 to 30,000 feet. In fact, 1997 was the 8th coolest year in the satellite record, just slightly less than the 19-year average.

We have Q+A — also, TK + Hansen OpEd

Q5.1 How do you account for the divergence between the trends in land-based and satellite temperature records over the past two decades.

Q5.2 What type of research is U.S. Global Change Research Program conducting to resolve this discrepancy? M. KeM

Reliable — why

Q6. The land-based temperature record is subject to the effects of urbanization that could raise temperatures. Because of this bias, some scientists have questioned the appropriateness of using the land-based temperature record alone to detect global warming. Because the satellites measure temperatures three-dimensionally (*i.e.*, between 5,000 and 30,000 feet), there is no bias from urbanization or other factors. Moreover, the satellites cover the entire globe whereas ground-based thermometers do not. How reliable, then, is the ground-based temperature record?

we has SYS reviewed this & urban heat island effect removed

Evidence for Significant Regional Ecosystem Response to Warming Experienced during the Period 1981-1991

Q7. Your testimony refers a paper published in the April 17, 1997 issue of *Nature* that "presented compelling evidence for significant regional ecosystem response to warming experienced during the period 1981-1991."

Myanni
Susan

Please provide a copy of that paper for the record.

Records of Total Rainfall and Extreme Rainfall for the United States Over the Last Century

Q8. On pages 4 and 5 of your written testimony, you discuss NOAA's Tom Karl review of the records of total rainfall and extreme rainfall for the United States over the last century and conclusions he reached based upon that review.

TK

Please provide a copy Mr. Karl's review and the underlying data used in that review.

Extreme Weather Events

Q9. On page 6 of your written testimony you state that "I want to emphasize that one can't point to any single extreme weather event today and say for sure that global warming caused it. But we can say that such events are examples of the kinds of impacts we expect to occur with greater frequency in a warmer world."

Please provide documentation of your statement that "such [extreme weather] events are examples of the kinds of impacts we expect to occur with greater frequency in a warmer world.

ask Karl what is best peer-reviewed argument for more warm & wet world since IPCC 95 was wrong

IPCC "Business As Usual" Scenario

Q10. On page 6 of your written testimony you discuss the IPCC "business as usual" scenario.

Please provide a listing of all IPCC "business as usual" scenario assumptions.

Joe En Mike Mac

I. Gibbons

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Constanza & Daily papers – also cite Janet Yellins estimate from her 3/4 test.

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8 PM FRIDAY

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Check IPCC regional report. Cite Table IPCC WG2 Summary – Global Gen IPCC (Strzepek)

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letters & we can ~~send~~ signatures from O_3 action

Wednesday, February 4, 1998, Post-Hearing Questions Submitted to the Honorable John H. Gibbons
Page 5 of 12

Similar Letters Urging Action from the Economic Community

Q15. On page 10 of your written testimony you state that "We have received similar letters urging action from the economic community."

economistletter

Please document this statement.

Regional Vulnerabilities

Q16. On page 11 of your written testimony you state the following:

"**Alaska:** The state's economic dependence on natural resources makes it highly vulnerable to climate change. Global warming will be most pronounced in northern regions. Probable consequences include drying of Alaska's interior, inundation of fragile coastal delta areas, and, most seriously, melting of permafrost, which is already underway. Continuation of Alaskan warming will lead to the disappearance of most discontinuous permafrost over the next 100 years. In many places, ground level can collapse 5 yards or more, leading to significant damages to ecosystems and human infrastructure. Houses, roads, airports, military installations, pipelines, and any other facility built on ice-rich permafrost are at risk. The melting of permafrost and the warming of tundra will lead to the release of carbon and methane deposits from the formerly frozen lands, which could make them an additional source of atmospheric greenhouse gases. Ecosystem effects include destruction of trees and caribou habitat; clogging of salmon spawning streams; reduction in forested areas; expansion of lakes and wetlands; and increased rates of coastal and riverbank erosion, slope instability, landslides and erosion."

Send reg workshop report?

Please document these statements.

Q17. On page 12 of your written testimony you state the following:

"**Great Plains:** All sectors of life in the Great Plains are dependent on a very limited water supply, and water shortages there are already a problem. The further drying expected from climate change poses the region's most significant risk. Agriculture is the base of the economy, despite the constraints of the dry and variable environment. Because agricultural water needs often exceed rainfall, water for irrigation is commonly supplied from deep aquifers, which are experiencing overdrafts and dropping water tables. As climate change leads to warmer conditions and an intensified hydrological system, the soils of the area are anticipated to further dry. The simultaneous drop in aquifer levels, greater run-off from extreme downpours, and shorter duration of snow cover will exacerbate the region's water supply problems. Drier soils could be subject to increased wind erosion, which has led to "dust bowl" conditions in the past. Better soil tillage practices would simultaneously improve soil fertility, soil carbon storage capacity, and soil moisture holding capacity. Native species will face increasing levels of competition from introduced species, such as cheat grass, Japanese brome, Russian thistle, and leafy spurge, which already account for extensive economic losses. Riparian areas (wetlands and prairie potholes), which are used intensively by hunters, anglers, and bird watchers, are extremely vulnerable to warmer, drier climate."

Please document these statements.

Send workshop report?
Also cite OTA Preparing for an Uncertain Climate

Q18. On page 12 of your written testimony you also state the following:

"**Southeast:** The Southeast is a region of abundance, with numerous wetlands, an extensive coastline, and productive agriculture, fisheries, and forestry. Urbanization and rapid population growth are already exerting significant stress on some fragile ecosystems. The Florida Everglades have been significantly altered by human encroachment, with approximately half of the ecosystem lost or severely altered by drainage for development as well as pollution from agricultural run-off. While the Southeast's long coastline makes it a recreational playground, its low elevation renders it extremely vulnerable to sea level rise and storm surges during extreme weather events, such as hurricanes, which are expected to worsen with climate change. A 1 foot rise in sea-level, the best estimate over the next century, could erode 100 to 1000 feet of Florida beaches, damaging property as well as tourist interests."

EPA 1989 report Impacts
& check OTA report
Send reg workshop rpt?
Literature cited in OSTP workshop rpt

Please document these statements.

Q19. On pages 12 and 13 of your written testimony you state the following:

"**Southwest:** Rapid population growth in this arid or semi-arid region make the Southwest extremely vulnerable to water supply problems that are likely to worsen under climate change. The region is naturally subject to large climate fluctuations, which have produced fairly robust adaptation mechanisms in ranching and agriculture. The native flora and fauna are also well adapted to life in this harsh and dry environment. Surface water supplies are insufficient; forcing reliance on groundwater, use of which already exceeds recharge and is leading to subsidence in many areas. Climate change will pose serious challenges and is likely to result in significant impacts to the region's traditional economic sectors as well as tourism, development, and retail sectors that now make up much of the region's economy. Expected conditions include more extremely hot days, fewer cool days, and decreased winter precipitation. Alteration of the region's hydrologic cycle would affect quantity and quality of the water supply, with major implications for continued development in the region. Significant changes in vegetation are also predicted, with Gambel oak, Piñon pine, and Douglas fir largely disappearing from the region. Saguaro would die off in its current range, but might find a new home further east and at higher elevations."

Please document these statements.

Wkshop Rpt?
Cite refs in Workshop rpt?

Wednesday, February 4, 1998, Post-Hearing Questions Submitted to the Honorable John H. Gibbons
Page 7 of 12

Q20. On page 13 of your written testimony you state the following: Regional Report (Check EPA 1987 report)

"**New England:** New England's economy is diverse, and many aspects are indirectly dependent on climate. Its natural areas are prized, and its fall foliage draws visitors from all over the world. The region is vulnerable to drought and severe storms, which modify its vegetation and impact production of forest and fisheries products. Warmer, drier climate could reduce ski tourism and shift optimal climatic conditions north into Canada for the tree species prized for their fall foliage and maple syrup. Coastal areas are likely to be affected by intensifying storms, sea level rise, and reduced freshwater input to estuaries. Air quality, already poor in the region's major urban areas, could decline even further as hot, humid weather increases, leading to increased incidences of respiratory illness."

Please document these statements.

Health Effects

Q21. On page 13 of your written testimony you also state the following: Call EPA - Gamlock or Patz or Scheraga

"**Health Effects:** According to the World Health Organization, the vulnerability of human populations to climate change varies across populations depending on environmental circumstances, social resources, and preexisting health status. In general, developing countries are more vulnerable to climate change than developed countries because of their limited capital and their greater dependence on natural resources. Climate change increases the risk of heat-related mortality and the potential for the spread of vector-borne diseases, such as malaria, dengue and yellow fever, and encephalitis, and non-vector borne diseases such as cholera and salmonellosis. The incidence of infectious diseases, which are still the world's leading cause of fatalities, may also increase."

Please document these statements.

Q22. On page 13 of your written testimony you also state the following:

"A study of deaths associated with summer time heat stress and winter time illnesses in 44 U.S. cities estimated that climate change could double the number of weather-related deaths. The elderly are at greatest risk in the U.S., and urban populations in developing countries are also especially vulnerable to heat stress."

Please provide a copy of this study.

EPA for both

Q23. On page 14 of your written testimony you state the following:

"Climate change is likely to extend the geographic ranges and increase the rates of transmission of disease-carrying vectors such as mosquitoes, which can increase the populations exposed to diseases such as malaria, dengue and yellow fever. Globally, the population exposed to malaria could increase by one-third. There could be 50-80 million additional malaria cases per year, assuming no change in public health protection."

IPCC Ch 18

Please document these statements.

Q24. On page 14 of your written testimony you state the following:

"Climate change can reduce air quality and increase levels of air borne pollen and spores, which exacerbate respiratory disease, asthma, and allergic disorders."

? IPCC or Schlesinger (EPA)

Please document these statements.

Impacts on Water Resources

Q25. On page 14 of your written testimony you also state the following:

"**Water Resources:** Among the most fundamental effects of climate change is an intensification of the hydrological cycle. Changes in precipitation, and increased evaporation and transpiration due to higher temperatures, can be expected to reduce water runoff, affecting the quantity and quality of water supplies for domestic and industrial uses, irrigation, hydropower generation, navigation, stream ecosystems and water based recreation. These effects will vary region by region. Increased variability in the hydrologic cycle is expected to result in more severe droughts and/or floods in some places. Impacts and mitigation expenses for such events are significant; damage estimates from the Mississippi flood of 1993 range from $10 billion to $20 billion. Areas of greatest vulnerability are those where water supplies and quality are already problems, such as arid and semi-arid regions of the world and some low lying coastal areas, deltas and small islands. IPCC

- Climate change would likely add to the stress in several U.S. river basins, such as the Great Basin, California, Missouri, Arkansas, Texas Gulf, Rio Grande, and Lower Colorado. OTA

- The Colorado River Basin would suffer decreased summer runoff, coinciding with peak demand for irrigation, unless precipitation also increases substantially. Reductions in runoff of up to 25 percent in the basin are projected under some scenarios. Regional ? Workshop?

?

- Water scarcity in Middle Eastern and African countries also is likely to be exacerbated by climate change. Countries that are highly dependent on water originating in areas outside their borders include Syria, Sudan, Egypt and Iraq." IPCC

Please document these statements.

Impacts on Forests

Q26. On pages 14 and 15 of your written testimony you also state the following: IPCC

"**Forests:** Climate change can dramatically alter the geographic distributions of individual tree species and of forest and vegetation types. One-third of the Earth's forests would undergo a major change in the type of vegetation that could be supported as a result of an equivalent doubling of CO_2. In northern forests, which are the forests most vulnerable to climate change, two-thirds of the currently forested area may undergo a change in vegetation type. Mountaintop species and isolated populations are particularly vulnerable. Over the next century, the ideal range for some North American forest species will shift by as much as 300 miles to the north, exceeding the ability of many species to migrate. In some instances, a change in vegetation type will result in a loss of forest area as the land converts to grassland or shrub land, while in other areas forest cover may increase.

- In the United States, western conifer forests could decrease in area and be replaced by broadleaf forests; eastern hardwood forests may be replaced by grasslands along their western boundary because of mid-continental drying. Forest damage from fire and diebacks driven by drought, insects and disease could increase."

Please document these statements.

Impacts on Other Natural Areas

Q27. On page 15 of your written testimony you state the following:

"**Other Natural Areas:** Natural ecosystems are highly vulnerable to degradation from climate change. Federally protected natural areas have become a repository for the Nation's rarest species and are critical for the conservation of biological diversity. The composition, geographic distribution, and productivity of many ecosystems will shift as individual species respond to changes in climate. These will likely lead to reduction in biological diversity and in the goods and services ecosystems provide for society, such as clean water and recreation. Freshwater wetlands are particularly at risk from climate change. IPCC findings show that: IPCC

We said that IPCC pointed out Everglades?!

- Precipitation changes and salt water intrusion from sea level rise could adversely affect the ecological communities of the Florida Everglades and degrade the habitat for many species of wading birds.

SE Workshop?

- The wetlands of the prairie pothole region of North America, which support half the waterfowl population of this continent, could diminish in area and change dramatically in character in response to climate change, significantly exacerbating the destruction already caused by agriculture." OTA ?

Please document these statements.

Impacts on Coastal Areas

Q28. On page 15 of your written testimony you also state the following:

"**Coastal Areas**: Even if concentrations of greenhouse gases are stabilized in the future, sea level would continue to rise long after, perhaps for several centuries, and reach levels much higher than projected for the next 100 years. For example, after an equivalent doubling of CO_2, the IPCC expects sea level to rise by 6 - 38 inches over the next century, with a "best estimate" of 20 inches, but the equilibrium sea level rise several centuries in the future is estimated to be at least 6 feet. Rising sea level erodes beaches and coastal wetlands, causes the gradual inundation of low lying areas, leading to human habitat loss and increasing the vulnerability of coastal areas to flooding from storm surges and intense rainfall. The IPCC estimates that 20 inches of sea level rise would double the population at risk from storm surges, from roughly 45 million at present to over 90 million world-wide. A three foot rise would triple the number of people exposed. Increases in coastal area populations are likely to further increase the number of people at risk. IPCC

- Along U.S. coasts, a 20 inch rise could inundate more than 5000 square miles of dry land and an additional 4000 square miles of wetlands if not protective measures are taken. A three foot rise would have greater impact, inundating much of the Southern tip of Florida among other areas. EPA

- Internationally, low-lying areas, such as parts of the Maldives and Bangladesh, would be completely inundated by a three foot sea level rise, creating large numbers of environmental refugees, which put stress on governments and social structures. 72 million people in China would be affected, assuming existing levels of coastal development." IPCC

Please document these statements

Impacts on Agriculture ands Food Supply

Q29. On pages 15 and 16 of your written testimony you also state the following:

"**Agriculture and Food Supply:** Agriculture is highly dependent on a number of variables that are likely to be affected by climate change, including weather patterns, longer term patterns of climate variability, and, most importantly, water availability. Climate change is likely to lead to increased crop yields in many areas, but decreased yields in others, even for the same crop. The magnitude of these changes can exceed +/- 30 or 40 percent for some crops and locations. Despite these potentially large changes in yields, average global food production is not expected to change substantially. This is because farming practices are considered to be highly adaptable to different climates, because production of important food crops can shift to new locations in response to changes in climate, and because CO2 has beneficial effects for plant photosynthesis and water use efficiency that can offset some deleterious effects of changes in climate. Impacts are likely to vary considerably across regions and some regions may suffer substantial reductions in agricultural production. In general, developing countries are more vulnerable to losses than are developed countries. IPCC

- Large reductions in soil moisture could significantly reduce flexibility in crop distribution and increase demands on water resources infrastructure.
- Increases in the range of pest habitat could increase vulnerabilities to pests and demand for, and use of, pesticides.
- In the United States, large areas of the eastern and central regions of the country face moderate to severe drying. Drought could become more frequent, particularly in the Great Plains." OTA ?

Please document these statements.

Unresolved Scientific Issues Relating to the Modeling of the Impact of Future Potential Greenhouse Gas Emissions on Global Temperature

Q30. What are the greatest unresolved scientific issues relating to the modeling of the impact of future potential greenhouse gas emissions on global temperature in order of importance? MacCracken Goodrich

Q31. How, by whom and where are the issues identified in the response to question 29 addressed by the U.S. Global Change Research Program? MacCracken Goodrich

Unresolved Scientific Issues Involved in Projecting Future Temperature Increases and the Impacts Thereof

Q32. What are the greatest unresolved scientific issues involved in projecting future temperature increases and the impacts thereof? MacCracken Goodrich

Q33. How, by whom and where are the issues identified in the response to question 32 addressed by the U.S. Global Change Research Program?

Process of Preparing and Reviewing the U.S. Global Change Research Program Budgets and Projects

Q34. In the preparation of the FY 1999 U.S. Global Change Research Program budget, have independent experts been involved in recommending and reviewing budget priorities and projects?

Q35 If your answer to question 34 is yes, what was the process and which outside institutions/individuals were involved?

Q36. Was there any independent peer review or peer involvement to identify scientific uncertainties to be addressed by the FY 1999 U.S. Global Change Research Program?

Q37. If your answer to question 36 is yes:

Q37.1 What independent peer review or peer involvement took place and what were their suggestions/recommendations?

Q37.2 Were any suggestions/recommendations not addressed, and if so, why?

Q38. What are your current plans for involving the scientific community in identifying unresolved scientific questions and directing resources to address them?

GCRP
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ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

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Facsimile Cover Letter

Total Number of Pages (including cover sheet) 6

To: THE HONORABLE GENE SPERLING

Fax #: 456-2878

From:

X Chairman David M. McIntosh

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(Mildred.Webber@mail.house.gov)

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ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

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March 11, 1998

BY FACSIMILE

The Honorable Gene B. Sperling
Assistant to the President for Economic
Policy, National Economic Council
Washington, D.C. 20500

Dear Mr. Sperling:

The Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs is conducting oversight of the White House Initiative on Global Climate Change.

Pursuant to the Constitution and Rules X and XI of the United States House of Representatives, please provide the Subcommittee with detailed information in response to the attached questions regarding the budget, performance measures, legislation, regulations, and analyses for this initiative. Please restate each question before the corresponding answer.

Please contact Subcommittee Staff Director Mildred Webber at 225-4407 if you have any questions about this request. Please provide this information not later than 12 noon, March 31, 1998 to the Subcommittee in Room B-377 Rayburn.

Thank you in advance for your attention to this request.

Sincerely,

David McIntosh

David M. McIntosh
Chairman
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

cc: The Honorable Dan Burton
The Honorable John Tierney

Enclosure

Questions for Each Agency with Any Climate Change Funding

1. Please provide a table with Fiscal Year (FY) 89 - FY 99 historical budget authority for your agency for the various components of the President's "Climate Change Technology Initiative," including the previous "Climate Change Action Program/Plan" and any other new or previously authorized Research and Development (R&D) herein (except for the U.S. Global Change Research Program included in Question 3 below). For each component, please indicate each specific budget account, the specific legislative authority (including the specific statute, the section citation, and the language of the section) for the program, and a brief description of the program.

2. In Section 2 ("Programmatic Details") of OMB's February 2, 1998 handout, "Climate Change Technology Initiative - 1999 Budget Briefing Materials," please provide the following information associated with each paragraph description in which your agency has been funded or is requesting funding: the associated funding in FY 97, FY 98, and FY 99. Also, for each paragraph, for the requested funding in FY 99, please provide evidence of any accomplishments from the FY 93 - FY 97 funding, if any. Lastly, for each paragraph, please indicate any program performance measures for the requested funding, and, for each such measure, please provide data for the 1990 base year and annual data for the most recent three-year period for which data are available.

3. Please provide a table with FY 89 - FY 99 historical budget authority for your agency for the various components of the "U.S. Global Change Research Program" which were or are devoted exclusively to climate change R&D. For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and a brief description of the program.

- If funded in any of FY 93 - FY 97, please provide evidence of any accomplishments from these dollars. Also, for requested funding in FY 99, please indicate any program performance measures for the requested funding, and, for each such measure, please provide data for the 1990 base year and annual data for the most recent three-year period for which data are available.

4. Please provide a table with FY 89 - FY 99 historical budget authority for your agency for any other components of the Administration's climate change program (i.e., in addition to those included in answer to questions 1 and 2). For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and a brief description of the program.

5. For the FY 99 request, please provide a table showing what part is funding to continue initiatives funded in FY 98 or prior years and what part is brand new activity. For each component, please indicate each specific budget account, the specific legislative authority for the program (including the specific statute, the section citation, and the language of the section), and

a brief description of the program. For each brand new activity, please indicate expected requested funding annually through FY 03.

6. Please identify the full set of your agency-specific performance measures for the Administration's Climate Change proposal (besides those indicated in response to questions 2 and 3), including data for at least the 1990 base year, FY 97, FY 98, and FY 99. Also, please identify how any of your agency-specific measures (including those in response to questions 2 and 3) relate to those for any other Federal agency. Lastly, please describe any interagency efforts to identify and relate the entire set of climate change performance measures, including which agencies are involved and the names of the agency representatives.

7. Please provide a table for FY 93 - FY 97 identifying all assistance (including grants, cooperative agreements, and other transactions) and contract awards to non-profit and for-profit organizations for any climate change activity, including the date, amount of the award, name of the organization, purpose of the award, and a summary of any result(s) from the award. Please provide a copy of any final report from these awards.

8. Since January 1993, has your agency participated in any interagency effort(s) relating to climate change in any of the following areas: (a) review of current legislation and/or the need for any new legislation; (b) review of current rules, any needed revisions to current rules, and/or any needed new rules; (c) production or review of any environmental data and/or analyses; (d) production or review of any cost-benefit data or analyses; and/or (e) production or review of any economic data and/or economic analyses? If so, please identify the interagency effort, its member agencies, its membership not only from your agency but also from other Federal agencies and/or any non-Federal parties, all drafts and analyses from the effort(s), and any comments from your agency on any drafts.

9. Since January 1993, has your agency either prepared or reviewed any environmental, cost-benefit, and/or economic data and analyses relating to the White House Initiative on Global Climate Change? If so, please provide a copy of all data, analyses, and any comments by your agency.

10. Did your agency comment on any of the draft testimony on climate change by Administration witnesses since the President's 1998 State-of-the-Union address (including, but not limited to, testimony by CEA Chair Janet Yellen on the Economics of the Kyoto Protocol before the House Commerce Committee)? If so, please provide a copy of the draft testimony and any comments by your agency.

11. Has your agency suggested any alternative policy options for climate change? If so, please provide a copy of all drafts and supporting analyses and any comments from other Federal agencies on your alternatives.

12. Does your agency plan to revise any existing legislation or propose any new legislation relating to climate change (including legislation that will have the effect of reducing greenhouse gas emissions whether or not that is the intended purpose of the legislation)? If so, please identify and describe all such initiatives, including a timetable for their development and submission to Congress. Also provide any and all legal and policy analyses regarding the applicability and availability of existing legislation to implement the Kyoto Protocol and any comments from other Federal agencies on the analyses.

13. Does your agency plan to revise any existing rules or propose any new rules relating to climate change (including regulatory actions that will have the effect of reducing greenhouse gas emissions whether or not that is the intended purpose of the regulatory action)? If so, please identify and describe all such initiatives, including any cost-benefit analysis, and a timetable for their development and promulgation. Also, provide any and all analyses that were prepared or considered of the cumulative effects on the U. S. economy and/or energy system of all or any combination of regulations that were issued since 1992, that were proposed, and that are being developed that have or will have such effects.

14. Has your agency participated in discussions or reviewed any documents relating to international emissions trading, joint implementation, and/or the Clean Development Mechanism? If so, please provide a copy of all drafts and any comment provided by your agency.

Definitions and Instructions for the Production of Records

1. When a request calls for the production of records, the Subcommittee requests all responsive records that are in the agency's possession, custody, or control through the date of the final submission of records to the Subcommittee, unless the request clearly states that the Subcommittee is only interested in records received during a particular time period.

2. Please sequentially number all records that you produce to the Subcommittee, and indicate the source of any record if the source is not accurately reflected on the record itself. Please submit all records on single-sided paper and submit an inventory of records produced if the volume is more than 100 pages.

3. To the extent practicable, please organize the records or documents in tabbed binders or folders that indicate which records are responsive to which requests for information.

4. For the purposes of this and related requests in the future, the "record" or "records" shall include any and all drafts, originals, and non-identical copies of any item whether written, typed, printed, electronically recorded, transcribed, punched, or taped, however produced or reproduced, and includes but is not limited to any writing, transcription, or recording, produced or stored in any fashion, including any and all computer entries, memoranda, notes, talking points, letters, journal entries, reports, studies, calendars, manuals, press releases, opinions, documents, analyses, messages, summaries, bulletins, e-mail messages (in hard copy and electronic forms), disks, the text of any alphanumeric messages or other electronic paging devices, briefing materials, cover sheets or routing cover sheets and any other machine readable material of any sort whether prepared by current or former officers and employees, agents, consultants or by any non-employee without limitation. "Record" or "records" shall also include redacted and unredacted versions of the same record.

White House Climate Change Task Force

734 Jackson Place, N.W. • Washington, DC 20503

FAX

To: Michelle Jolin

Organization/Title:

Fax: 395-6988 **Phone:**

Pages (including cover): **Date:**

From: Tom Peterson

Phone:

Message:

The attached congressional Q's: CEA needed for some responses. Note short deadline. Interim may be needed in some cases. Please call to discuss @ 343-1093. Thanks,

Tom

202 395 5000 • Fax 202 395-1162

JAMES M. TALENT, MISSOURI
CHAIRMAN

JOHN J. LAFALCE, NEW YORK

Congress of the United States

House of Representatives

105th Congress

Committee on Small Business

2361 Rayburn House Office Building
Washington, DC 20515-6315

David
Dick
Shelley
Wes
Katie
Dinah
Judy
Robert

March 2, 1998

The Honorable Kathleen A. McGinty, Chair
Council on Environmental Quality
Executive Office of the President
360 Old Executive Office Building
Washington, DC 20500

Dear Ms. McGinty:

As you are aware, the Third Session of the Conference of Parties to the UN Framework Convention on Climate Change (COP-3) was held in Kyoto, Japan from December 1-11, 1997. On December 11, COP-3 adopted the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), which sets binding greenhouse gas (GHG) emissions targets for developed nations.

Due to the potential economic impact of this Protocol, the House Committee on Small Business is reviewing this agreement, pursuant to its oversight jurisdiction, based on the accord's perceived economic impact on small business.

Please provide the Committee with the following information regarding the Kyoto Protocol:

1. Any and all regulatory impact or economic analyses performed by federal agencies, contractors or grantees regarding the implementation of the Kyoto Protocol in the United States; CEA + EPA DOE
2. Any and all activities and/or plans for federal agency implementation of the Kyoto Protocol; State
3. Any and all evidence, documentation, or scientific bases for the existence of the phenomenon described as Global Warming; OSTP
4. Any known or perceived specific time frame for signing of the Kyoto Protocol by the President of the United States; and State

5. Copies of any side agreements, memoranda, protocols or other documents concerning the Kyoto Protocol entered into or contemplated between the Executive Branch and other nations, parties or non-governmental entities.

Please deliver these materials to the Committee on Small Business, Room 2361 Rayburn House Office Building, by March 18, 1998.

If you ~~have any questions~~ regarding this request, please contact Peter Brechtel of the Committee staff at 225-5821.

Thank you for your prompt attention to this matter.

Sincerely,

James M. Talent
Chairman

White House Climate Change Task Force

734 Jackson Place, N.W. • Washington, DC 20503

FAX

To: Michelle Jolin

Organization/Title:

Fax: 395-6958 Phone:

Pages (including cover): Date:

From: Tom Peterson

Phone:

Message:

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Note short deadline. Interim
may be needed in some cases.
Please call to discuss @
343-1093. Thanks
Tom

ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

March 6, 1998

BY FACSIMILE

The Honorable Franklin D. Raines
Director
Office of Management and Budget
Washington, D. C. 20503

The Honorable Kathleen A. McGinty
Chair
Council on Environmental Quality
Washington, D. C. 20502

Dear Director Raines and Chair McGinty:

The Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs is conducting an inquiry concerning the economic, legal, and regulatory implications of the Administration's efforts to jump-start the process of reducing greenhouse gas emissions under the terms of the Kyoto Protocol.

Pursuant to the Constitution and Rules X and XI of the United States House of Representatives, please provide the Subcommittee with detailed information in response to the attached questions. In responding to this inquiry, please restate each question and subpart with each of your answers, and please follow the definitions and instructions concerning the production of records on the attached page.

Please provide your responses to the written questions and requests for production of records by March 20, 1998 to the Subcommittee's office in Room B-377 Rayburn. In addition, please contact Larisa Dobriansky, Senior Counsel, at (202) 225-4407 as soon as practicable to coordinate the timely production of the information to the Subcommittee.

Thank you for your cooperation in this matter.

Sincerely,

David McIntosh

David M. McIntosh
Chairman
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

cc: The Honorable Dan Burton, Chairman
Committee on Government Reform and Oversight

The Honorable John Tierney, Ranking Member
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

The Honorable Henry Waxman, Ranking Member
Committee on Government Reform and Oversight

Questions on the Administration's Global Climate Change Policy Actions

IMPLEMENTATION WITHOUT RATIFICATION

"We have no intention through the back door or anything else, without Senate confirmation, of trying to impose or take any steps to impose what would be binding restrictions on our companies, on our industry, on our business, on our agriculture, on our comerce, or on our country, until and unless, the Senate of the United States says so."

Statement of the Honorable Stuart E. Eizenstat
Under Secretary of State for Economic, Business, and Agricultural Affairs
Before the U.S. Senate Committee on Foreign Relations
February 1998

"Whether there is an agreement in Kyoto or not, the United States is prepared, under President Clinton's leadership, to unilaterally take steps that we believe should be taken in order to deal with this problem."

Statement of Vice President Gore
December 1997

Unilateral Executive Actions on a Global Issue.

1. Given that the Kyoto Protocol seeks to address a global issue, isn't it harmful to U.S. interests to proceed without the full participation of developing countries? State

2. Besides being unconstitutional, isn't it also premature and possibly counterproductive for the United States to take unilateral executive branch action, without ratification, when the Administration has characterized the Protocol as a "work in progress"? State

A Budget Request without Justification or Ratification.

3. How can the Administration claim that its proposed Climate Change Technology Initiative (CCTI) is not intended to implement the Kyoto Protocol, when this initiative has been made an integral part of the President's Global Climate Change Initiative, and the initiative is specifically designed to alter market behavior in furtherance of the treaty's emissions reductions targets? CC Task Force

4a. In a hearing before the Senate Foreign Relations Committee on February 11, 1998, Under Secretary of State Eizenstat testified that the tax incentives and research funding that the President requested in his Fiscal Year (FY) 1999 Budget proposal are necessary to place the U.S. in a "position where we will be further down the road and won't have to make the kind of drastic CEA

→ OMB or Treas.

reductions that otherwise might be called for." Please provide all of the economic data and analyses upon which the Administration relied for this determination. As to any analysis, please identify who prepared it and provide all records containing comments by other federal agencies on the drafts.

4b. Explain why the President decided to request $6.3 billion in his budget proposal instead of the $5 billion that he stated he would seek at the time that he announced his Climate Change Action Proposal on October 22, 1997. Was this decision affected by the fact that the Administration agreed at Kyoto to commit the U.S. to reducing greenhouse emissions by 7% below 1990 levels rather than stabilizing emissions at 1990 levels? OMB

5a. Article 3.2 of the Kyoto Protocol states: "Each Party included in Annex I, by 2005, shall have made demonstrable progress in achieving its commitments under this Protocol." Please explain how the Administration is interpreting this provision of the treaty. State

5b. Does the Administration believe that its Global Climate Change Initiative, including the CCTI, will enable the U.S. to make demonstrable progress in achieving its commitments under the Kyoto Protocol? CC Task Force

5c. Please provide and document the Administration's annual performance measures for its 5-year Climate Change Technology Initiative (CCTI). In this regard, provide the following: the 1990 U.S. emissions level, data on actual emissions reductions for Fiscal Year 1997, and then projected emissions reductions beginning with Fiscal Year 1997 and then for each year up to and including Fiscal Year 2003. OSTP

5d. Please specify the annual greenhouse gas emissions reductions that the Administration estimates will occur between FY 1999 and FY 2005 from implementing each element of its Global Climate Change Initiative. OSTP

6a. The Administration has maintained that the CCTI is a "no-regrets" proposal; that is, regardless of whether or not there is a real threat of global warming, this proposal is justified on its own merits as good energy and environmental policy. In view of this claim, please demonstrate the need for this initiative based on reasons other than facilitating greenhouse gas emissions reductions. CEA — OMB on Treasury

6b. In this regard, provide the environmental and economic data and analyses that support this request on its own merits. CEA

6c. Can the Administration point to a significant market failure or demonstrate a compelling public need that necessitates $3.6 billion of new tax incentives and a 73 percent increase in funding to accelerate the development and diffusion of more energy efficient technology? According to OECD data, U. S. energy efficiency since 1980 has improved more than that of most industrialized countries. CEA

6d. Please provide a detailed explanation of and produce all records indicating the alternative policy options that the Administration analyzed, including more broadly-based options, such as integrated pollution prevention, performance-based regulation, and multi-media regulation. In this regard, did the Administration evaluate whether existing regulation may be a significant barrier to improving energy efficiency and the environment? CEA + EPA DOE

6e. Please explain in detail and fully document the cost-effectiveness of the Administration's proposal when compared to other available options for improving energy efficiency and the environment. CEA

6f. Please explain in detail and fully document the opportunity costs of committing such a significant amount of our nation's resources in this manner. CEA

6g. As to any analysis provided, identify who prepared it and provide all records of comments by other federal agencies. CEA

7. How realistic and achievable are the targets and timetables that the U.S. delegation agreed to at Kyoto, if it is necessary to take unilateral executive branch actions prior to Senate ratification in order "to get us in a position where we will be further down the road and won't have to make the kind of drastic reductions that otherwise might be called for"? CEA ?

8. Under section 102 of the **National Environmental Policy Act**, the federal government is required to provide a detailed environmental impact statement (EIS) and to follow specified procedures for review and comment whenever it is recommending to Congress legislation that "affects the quality of the human environment". Please provide any EIS (or draft EIS, if not finalized) that was prepared in connection with the Administration's requests for tax incentives and research funding to facilitate greenhouse gas emission reductions. With respect to any EIS, identify who prepared the document and provide all records of written and oral comments from other federal agencies. CEQ

The Inescapable Regulatory Backdoor.

9. In its 1997 U. S. Climate Action Report under the current Framework Convention on Climate Change, the Administration made this statement: "Recognizing that even the most draconian measures would likely be insufficient to reverse the growth in greenhouse gases and return U.S. emissions to their 1990 levels by the year 2000, new U.S. efforts are focusing most intensively on the post-2000 period." Based on this assessment, how can the President assert that the U.S. commitments under the Kyoto Protocol are achievable with minimum economic costs? Provide any economic and legal analyses that demonstrate that U.S. obligations can be met without constraining U.S. economic growth and without imposing onerous and costly regulation. Also, please provide two copies of the 1997 U.S. Climate Action Report. CEA

POLICIES WITHOUT ECONOMIC ANALYSIS

"By providing incentives for early action to reduce emissions, attacking domestic energy inefficiencies, and putting in place a market-based emissions trading system, we can reach [our emission reduction targets] with minimum economic costs."

Statement of President Clinton
Climate Change Proposal
October 1997

The Administration's Repeated Failure to Conduct Economic Analysis.

14a. Given the significant economic costs projected by private sector studies, why did the Administration abandon a year and a half-long effort to develop cost estimates of the President's proposed policies to reduce greenhouse emissions? In testimony before the House Subcommittee on Energy and Power on July 15, 1997, the Chair of the Council of Economic Advisers, Dr. Janet Yellen, stated that President Clinton's top priority since his first days in office "has been revitalizing the U.S. economy, creating jobs, and investing in people and technology to enhance long-term growth." CEA

14b. How can the Administration defend its policy actions based on the results of climate models that must take into account significant uncertainties surrounding the effects of human activities on the climate, yet nevertheless consider economic modeling to be "futile" (Dr. Yellen's expression at the House Commerce hearing on July 15, 1997)? CEA

15a. In testimony before the House Commerce Committee in 1997, former Under Secretary of State Timothy Wirth stated that an interagency "economics team" was formed to analyze the impacts of climate change policies.

IAT

15b. Please provide the following background information regarding that group: when it was formed, the names of the participants and their agencies, the head of the team, the scope of the group's responsibilities, and to whom the group reported. CEA

15c. Please produce records of all meetings of this group and information on any workshops conducted. Also, produce all analyses performed by the group and provide all records of written or oral comments from other federal agencies on the team's analyses and advice. CEA

16. In developing its positions for the Conference in Kyoto, did the Administration at any point renew its efforts to estimate the costs of various policies to reduce greenhouse gas emissions? If so, please provide all economic analyses that were prepared for the Administration and the U.S. delegation to review. As to each analysis, please indicate who prepared the analysis CEA

No Cost/Benefit Analysis of the Kyoto Treaty.

24a. Please provide any and all analyses that the Administration or any federal agency prepared (or is preparing) of the costs and benefits of imposing on the U.S. the binding targets and timetables set forth in the Kyoto Protocol for reducing greenhouse gas emissions, taking into account the global implications of the way in which this agreement is structured. Also, please analyze and document the following: CEA EPA DOE

? 24b. Whether the benefits of implementing this Protocol are justified by the costs; CEA

24c. Evaluate the effectiveness of this agreement by comparing the marginal abatement costs of the most plausible alternative scenarios for meeting the Kyoto targets, given the way in which this agreement is structured, with the marginal costs of other reasonable alternative compliance schemes; CEA new

24d. With respect to each scenario that is analyzed, identify the assumptions used, explain any uncertainties concerning the assumptions, and examine the sensitivity of net benefits to the different compliance strategies, using a range of plausible assumptions about future economic development and about fundamental climate processes; CEA new

24e. Evaluate the opportunity costs of pursuing the Administration's strategy for the abatement of greenhouse gas emissions under the terms of the treaty; and CEA new

24f. Evaluate how the benefits and burdens of complying with this treaty would be distributed on the national and household levels, describing, among other things, the disparate regional and industrial sector impacts, and the effects on different income levels. CEA new

25a. In evaluating alternative scenarios, please examine the following:

25b. Compare the economic and environmental effects of not including developing countries in the effort to reduce global emissions (with the potential for binding developed countries to even greater obligations, without limiting developing countries) against the effects of addressing greenhouse gas mitigation on a global scale by the international community. CEA new

A 25c. Compare the economic and environmental effects of complying within the timeframes set forth in the Kyoto Protocol with the effects of complying over a longer time period. CEA new

25d. Compare the impacts of reducing greenhouse emissions using international emissions trading, joint implementation, and the Clean Development Mechanism with the impacts of relying upon domestic emissions permit trading. In this regard, evaluate alternative international trading scenarios: trading only between Annex I countries, trading that extends to a number of "key" developing countries, and trading in which all countries are fully participating. CEA new

26. With respect to any analysis provided, please identify and explain the basis for assumptions used regarding such factors as the rate of improvement in energy efficiency, the effectiveness of market incentives in increasing the market share of fuels that emit less carbon, and economic and demographic growth. Also, explain fully any assumptions on how emissions reductions will be achieved, as for example, through the early retirement of coal plants or nuclear plant life extensions. CEA new

27. In considering the opportunity costs, evaluate the extent to which the Administration's climate change strategy will require the diversion of funds from savings and/or investments which would have provided other benefits, such as saving social security, or more funding for education, health care, etc. CEA new

28. In assessing the impacts on the U.S. of complying with the Kyoto targets and timetables, please explain in detail the potential effects on the following indicators of economic performance: gross domestic product (GDP), per capita GDP, unemployment, income and real wages, trade competitiveness, and energy prices. CEA new

29. In assessing the benefits of complying with the Kyoto treaty, please evaluate fully the potential offsetting negative effects of exempting developing countries and of "carbon leakage." Also, if the economies of developed countries experience reductions in economic growth, evaluate the impact that this will have on the ability of emerging countries with export markets to transition to more energy efficient technologies. CEA new

30. President Clinton has suggested that the U.S. economy can continue to grow under this agreement. Please indicate at what rate the Administration expects that the economy will continue to grow during the next ten to 20 years if the treaty is ratified and at what rate it is expected to grow if the treaty is not ratified. CEA new

31. Have any of the cost/benefit analyses performed by the Administration or any agency been peer-reviewed? If so, please identify the reviewers provide their comments on the analyses. If not, does the Administration plan to do so? Please describe fully the steps that the Administration plans to take. CEA new

32. Please describe in detail the strengths and weaknesses of the methodology of any economic models used. Also, indicate the differences between the models used in any of the cost/benefit analyses performed post-Kyoto and those used in any prior analyses performed by the Administration. CEA new

33. In connection with these cost-benefit analyses, fully explain how the baseline(s) against which costs and benefits were calculated was determined. CEA new

34a. Please provide all records of written or oral comments from other federal agencies on each of the cost/benefit analyses that were performed. CEA

34b. Please provide all records of comments submitted by federal agencies on Dr. Janet Yellen's draft testimony about the economics of Kyoto for the hearing before the House Commerce Committee on March 4, 1998. CEA

International Emissions Trading: Not a Panacea.

35. As a practical matter, until the Conference of the Parties makes all of the decisions that it is empowered to make under Article 17 of the Kyoto Protocol concerning the establishment of rules and procedures for international emissions trading, isn't it premature for the Administration to forecast definitively that the agreement would result in, at most, modest energy price hikes? CEA ?

36a. With respect to the rules and procedures for international emissions trading that have yet to be developed, what are the minimum requirements that the Administration is seeking to assure an efficient and effective system for lowering the costs of emissions reductions? CEA ? State

36b. Does the Administration intend to confer with Congress and obtain comments from Congress and the public in developing negotiating positions for Buenos Aires on rules and procedures for an international emissions trading system and for obtaining joint implementation project credit, including the Clean Development Mechanism? State

37a. Why does the Administration believe it can obtain meaningful participation by developing countries and what steps is the Administration taking to achieve this? What indications of potential meaningful participation have been shown by developing countries that prompt this optimism? State

37b. In particular, what are the steps being taken with respect to China, India, Mexico, Brazil, and South Korea and what indications of potential meaningful participation has the Administration received from these countries? State

37c. Which countries does the Administration consider "key," in assuring that "meaningful participation" is secured? State

38. Why does the Administration maintain that the U. S. acid rain program experience "clearly demonstrates how programs like international permit trading, joint implementation and the Clean Development Mechanism will lead firms to find cheaper ways of reducing emissions that can lead to unexpectedly low costs"? Is it appropriate for the Administration to extrapolate from that experience to the global arena? Won't the effectiveness of the international system, joint implementation, and the Clean Development Mechanism depend on such factors as the rules and procedures governing these mechanisms, the extent of participation by other countries, including developing countries, etc? CEA ?

39a. Even assuming that effective rules and procedures can be developed for an international emissions trading system and for joint implementation projects and that key developing countries agree to participate, isn't there a real risk that these mechanisms could effect an enormous transfer of wealth and jobs out of this country overseas, especially to the countries of the former Soviet Union and emerging countries (i.e., that this system would be essentially a foreign aid program)? Some studies have estimated that more than 50% of our reductions would have to be purchased from other countries. CEA

39b. Please provide and document estimates of the percentage of U.S. emissions reductions that might have to be purchased from other countries to minimize the costs of reducing emissions and which countries likely would be the beneficiaries. CEA

White House Climate Change Task Force

734 Jackson Place, N.W. • Washington, DC 20503

FAX

To: Michele Jolin

Organization/Title:

Fax: 395-6958 Phone:

Pages (including cover): Date:

From: Tom Peterson

Phone:

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The attached congressional Q's:
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Note short deadline. Interim
may be needed in some cases.
Please call to discuss @
343-1093. Thanks,

Tom

202-3[illegible]-1000 • Fax 202-[illegible]-1162

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON SCIENCE

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371
TTY: (202) 226-4410
http://www.house.gov/science/welcome.htm

February 26, 1998

The Honorable Kathleen A. McGinty
Chair
Council on Environmental Quality
Room 360
Old Executive Office Building
Washington, D.C. 20503

Dear Ms. McGinty:

I wish to express my sincere appreciation for your testimony during the February 4, 1998 Committee on Science "The Road from Kyoto—Part 1: Where Are We, Where Are We Going, and How Do We Get There?" hearing.

Enclosed are additional questions from Members of the Committee, as well as a copy of the hearing transcript. Your responses will be published as part of the official record of the hearing. In addition to a hard copy of your answers, the Committee requires an additional copy, including any supporting graphs or charts, saved on a DOS formatted 3.5 inch diskette, in either Word Perfect, Word or ASCII text. Please send your responses to Ms. Sarah Monahan of the Committee staff. If you prefer, you may E-mail your responses to sarah.monahan@mail.house.gov.

I would appreciate receiving your responses to the enclosed questions by **Thursday, March 19, 1998.**

Also enclosed is a copy of the verbatim transcript for your review. The Committee's rule pertaining to the printing of transcripts is as follows:

> *The transcripts ... shall be published in* ***verbatim form****, with the material requested for the record, as appropriate. Any requests to correct any errors, other than transcription, shall be appended to the record, and the appropriate place where the change is requested will be footnoted.*

The complete revisions to the transcripts submitted for the record must be received by Thursday, March 12, 1998, and should be sent to Ms. Sarah Monahan, Subcommittee on Energy and Environment, H2-389 Ford House Office Building, Washington, DC 20515. If you have any questions, please contact Ms. Monahan at (202) 225-9662.

The Honorable Kathleen A. McGinty
February 26, 1998
Page two

Thank you again for making this hearing successful. Once the transcript has been completed and published, a copy will be forwarded to you.

Sincerely,

F. JAMES SENSENBRENNER, JR.
Chairman

FJS:hlw

COMMITTEE ON SCIENCE
U.S. HOUSE OF REPRESENTATIVES

Hearing
on

The Road from Kyoto—Part 1:

Where Are We, Where Are We Going, and How Do We Get There?

Wednesday, February 4, 1998

Post-Hearing Questions
Submitted to

The Honorable Kathleen A. McGinty
Chair
Council on Environmental Quality

Post-Hearing Questions Submitted by Chairman Sensenbrenner

Documentation of 1997 Temperature Statistics

6STP

1. On page 1 of your written testimony, you state:

"Based on extensive ground-based measurements, the National Oceanic and Atmospheric Administration (NOAA) -- our lead national agency for collecting weather statistics -- reported that 1997 was the warmest year based on records that date back over a century. While the temperature in any one year cannot prove or disprove anything about global warming, this year's statistics, further confirmed by two other sources of information about global surface temperatures (the Goddard Institute for Space Studies/NASA and the researchers at East Anglia University in the U.K.), follow a clearly emerging pattern. The nine warmest years of the century have occurred in the past 11 years."

1.1 Please provide a copy of NOAA report and accompanying data/statistics referred to in your statement above.

1.2 Please provide a copy of the Goddard Institute for Space Studies/NASA confirmation and accompanying data/statistics referred to in your statement above.

1.3 Please provide a copy of the East Anglia University confirmation and accompanying data/statistics referred to in your statement above.

1.4 Please document your statement that "The nine warmest years of the century have occurred in the past 11 years."

Temperature Record: Land-Based Versus Satellite Data

OSTP

2. Your testimony refers to the recent announcement that 1997 was the warmest year in the temperature record. However, the land-based temperature data do no comport with satellite data, which show a slight cooling trends (-0.05°C per decade) over the last 19 years. In fact, 1997 was the 8th coolest year in the satellite record, just slightly less than the 19-year average. How do you explain the discrepancy between these two data sets?

The Lancet Study on Particulate Matter-Related Health Impacts of Greenhouse Gas Mitigation and Reduction in Deaths and Greenhouse Gas Emissions Doe to EPA's Recently Promulgated Fine Particulate Standard

OSTP / EPA-OAR

3. On page 2 of your written testimony, you state:

"A second development relates to a study published in November in the medical journal Lancet. Most studies have examined the impacts of climate change on human health in terms of increased fatalities due to heat stress or the spread of infectious diseases. While by themselves, these areas represent considerable human health risks, this new study by the Working Group on Public Health and Fossil Fuel Combustion looked at the short-term impacts on mortality from air-borne particulate matter assuming no changes in estimates of energy use from fossil fuels. The analysis found that an estimated 8 million deaths globally due to exposure to fine particulates could be avoided between 2000 and 2020 if substantial steps were taken to limit greenhouse gas emissions from burning fossil fuels. In the United States alone, the study reports that thousands of deaths annually could be avoided during the 2000-2020 period. This study presents an important near-term benefit from actions to reduce greenhouse gas emissions that must be considered in addition to the long-term benefits of avoiding climatic disruptions. EPA's recently promulgated fine particulate standard begins to address this public health concern and should result in both some reductions in greenhouse gas emissions along with reducing the number of deaths associated with exposure to fine particulates."

3.1 Please provide a copy of *The Lancet* article referred to above.

3.2 What level of reductions in greenhouse gas emissions and in the number of deaths associated with exposure to fine particles will result from EPA's recently promulgated fine particulate standard. begins to address this public health concern and should result in both some reductions in greenhouse gas emissions along with reducing the number of deaths associated with exposure to fine particles."

3.3 Please document the figures provided in the response to question 3.2 above.

The Kyoto Protocol and the Rate of Increase of the Build-Up of Greenhouse Gases in the Atmosphere and the Corresponding Temperature Changes

4. On page 2 of your written testimony, you also state: OSTP

"Although the agreement reached in Kyoto will not reverse the build-up of greenhouse gases in the atmosphere, it will begin slowing the rate of increase."

4.1 How much will the Kyoto Protocol slow the rate of increase of the build-up of greenhouse gases in the atmosphere?

4.2 What is the estimate of the atmospheric concentrations of each of the six greenhouse gases in each of the years 2050 and 2100, and what is the estimate of the corresponding warming due to those increased concentrations in the absence of the Kyoto Protocol?

4.3 What is the estimate of the atmospheric concentrations of each of the six greenhouse gases in each of the years 2050 and 2100, and what is the estimate of the corresponding warming due to those increased concentrations if the terms of the Kyoto Protocol are met?

Submission of the Kyoto Protocol to the Senate for Ratification and "Meaningful Participation by Key Developing Countries"

State

5. On page 2 of your written testimony, you also state:

"The President has made it clear that he does not intend to send the Kyoto Protocol to the Senate for ratification until we have achieved meaningful participation by key developing countries."

5.1 Which developing nations are "key?"

5.2 What does "meaningful participation" mean and what will the United States seek from developing countries? Please be specific about the kinds of limitations, reductions, or other obligations that the United States will be seeking in negotiations and discussions.

5.3 Please explain all of the considerations that bear on the issue of when the President will submit the Kyoto Protocol to the Senate for ratification.

5.4 Before the President submits the Kyoto Protocol to the Senate for ratification, do "key" developing countries have to make legally binding, quantitative commitments to limit the growth of their greenhouse gas emissions, and if so, which countries would have to make such commitments?

5.5 Whatever it is that "key" developing countries have to do before the President submits the Kyoto Protocol to the Senate for ratification, will it satisfy the Administration's requirement if it is done by means of a bilateral or multilateral agreement with the United States that is not in the form of a new protocol or an amendment to the Convention or to the Kyoto Protocol?

Signing of the Kyoto Protocol

State

6. Will the President, or the Vice President, or another person with the authority to do so sign the Kyoto Protocol as it currently exists and if so, when the signing take place?

7. If your answer to question 6 above is not definitive, please explain all of the considerations that bear on the issue of whether or when the President, or the Vice President, or another person with the authority to do so will sign the Kyoto Protocol.

U.S. Reductions of Greenhouse Gas Emission Required by the Kyoto Protocol/Emissions Trading

8. On page 3 of your written testimony, you state:

CEA ? → EPA State

"Ultimately, the U.S. agreed to a target of a 7% reduction from baseline levels. Given the changes in the definition of the baseline for the three long-lived chemical compounds (HFCs, PFCs and SF6) from 1990 to 1995 combined with a change in the way sinks are accounted for in the baseline, the actual reduction required in the U.S. is no more than 2-3% more than the President originally proposed as the U.S. negotiating position."

Please provide a detailed calculation, including a listing of all assumptions that verifies your statement that "the actual reduction required in the U.S. is no more than 2-3% more than the President originally proposed as the U.S. negotiating position."

9. What is the actual reduction in emissions within the borders of the United States would have to be to meet the U.S. obligation as outlined in the treaty and what data uncertainties still exist with respect to calculating this number?

10. Article 6.1(d) of the Kyoto Protocol states that "The acquisition of emission reduction units shall be supplemental to domestic actions for the purposed of meeting the commitments under Article 3 [of the Protocol]"

State

10.1 What does this mean?

10.2 Since Russia and the Ukraine will be substantially below their emission targets in the Protocol, they can sell large amounts of emissions credits. Why should the American public be willing to underwrite the transfer of what could be billions of dollars to those nations so the United States could reach its emissions reduction targets?

10.3 What is the Administration assuming about the proportion of our reductions that can be met through these means, and what is the limit acceptable within the terms of the Protocol?

<u>International Emissions Trading and the Costs of Kyoto Protocol Compliance</u>

CEA / DOE / EPA

11. On page 4 of your written testimony, you state:

"A number of studies have suggested that the costs of compliance can be significantly reduced if flexible implementation is permitted."

Please provide for the record a copy of each of the studies referred to in your statement"

<u>Clean Development Mechanism</u>

12. On page 4 of your written testimony, you also state: State / DOE / EPA

"Clean Development Mechanism: Under this innovative provision, developed countries will be able to use certified reductions from project activities in developing countries to contribute to compliance with greenhouse gas reduction targets. This provides both a mechanism to secure low cost reductions throughout the world and a powerful economic incentive to lead developing countries toward more climate-friendly technologies. This represents an important avenue for developing country actions to reduce emissions in cooperation with U.S. private sector firms that have the technology, resources and know-how to make such reductions in ways that save energy, reduce emissions and improve performance. This provision effectively embodies the U.S. proposal for joint implementation with credit for activities in developing countries. It also provides, again at U.S. insistence, an incentive for early action by permitting credit for reductions that occur beginning in the year 2000."

12.1 Article 12 of the Kyoto Protocol, which establishes the Clean Development Mechanism, appears to have potential for creating a huge bureaucracy inserted between the investing and the recipient countries. Why did the Administration agree to such an arrangement?

12.2 Why is there a need for such an institutional mechanism for joint implementation (JI) projects?

12.3 Under the Kyoto Protocol, what would be the status of existing and pending bilateral JI projects promoted by the U.S. Initiative on Joint Implementation?

12.4 What is the Administration's position on JI going into the November 1998 negotiations with respect to how this Clean Development Mechanism should work?

12.5 What criteria would you expect for projects that qualify for Clean Development Mechanism financing?

12.6 How would emissions credits under the Clean Development Mechanism be allocated to contributing/investing countries or entities?

12.7 Isn't Clean Development Mechanism another form of foreign assistance by another name, only funded by the private sector, and if not, why not?

Emission from the Military

13. On page 4 of your written testimony, you also state: State

"Emissions from the Military: The U.S. obtained agreement on its proposal for an exemption for emissions from multilateral operations pursuant to the United Nations charter. This decision will ensure that nations do not hold back from participating in humanitarian, peacekeeping and other operations due to concerns about greenhouse gas emissions."

13.1 Please cite the specific text of the Kyoto Protocol that provides such an exemption.

13.2 Are unilateral operations subject to the terms of the Kyoto Protocol? If your answer is no, please cite the specific Protocol text that provides that unilateral operations are not subject to the Protocol.

13.3 To be more specific, if the Kyoto Protocol was in force would unilateral military action by the United States against Iraq be subject to its terms? If your answer is no, please cite the specific Protocol text that provides that unilateral military action by the United States against Iraq would not be subject to the Protocol.

13.4 If unilateral military action were subject to the terms of the Kyoto Protocol, what would be the national security implications?

13.5 Will domestic emissions from military training exercises be counted against the U.S., and if so, what are the implications for our military readiness?

13.6 Concerning U.S. troops stationed overseas, will emissions from training and operations be counted against the host country or the U.S.? And if the host country, does that mean that U.S. troops overseas will be subjected to greater control by the host country, and how will this affect readiness?

<u>President's FY 1999 Budget Tax Credits for Highly Fuel Efficient Vehicles</u>

Treasury

14. On page 5 of your written testimony, you state:

"Tax credits for highly fuel efficient vehicles: This credit would be $4,000 for each vehicle that gets three times the base fuel economy for its class beginning in 2003. A credit of $3,000 would be available beginning in 2000 for vehicles that get double the base fuel economy for its class. These credits would be available to jump start these markets and would be phased out over time."

Please specify—by year—the greenhouse gas reductions expected to be achieved through the application of the tax credit for highly fuel efficient vehicles.

<u>President's FY 1999 Budget Tax Credits for Energy Efficient Equipment</u>

Treasury / DOE

15. On page 5 of your written testimony, you also state:

"Tax credits for energy efficient equipment: These credits (all of which are subject to caps) would include a 20% credit (subject to a cap) for purchasing certain types of highly efficient building equipment, a 15% credit for the purchase of solar rooftop systems, and a 10% credit for the purchase of highly efficient combined heat and power systems."

Please specify—by year and by tax credit—the greenhouse gas reductions expected to be achieved through the application of the tax credits for energy efficient equipment.

President's FY 1999 Budget Proposal for Two New Partnerships for Heavy Trucks and Light Trucks, including Sport-Utility Vehicles

16. On page 5 of your written testimony, you also state: CEQ - Linda Lance

"Two new partnerships are proposed for heavy trucks and light trucks, including sport-utility vehicles."

Please describe these two new partnerships in detail, including funding, duration, participants, and cost-sharing requirements.

Fuel Efficient Vehicles

CEQ - Linda Lance

17. On page 6 of your written testimony, you state:

"Fuel Efficient Vehicles: At the recent automobile show in Detroit, General Motors (GM) announced four passenger hybrid electric and fuel cell vehicles that can achieve fuel efficiency of up to 80 miles per gallon – production prototypes of which could be available in 2001 and 2004. Ford also unveiled a prototype of a mid-size high efficiency sedan that achieves 63 miles per gallon using an advanced diesel engine. Ford also plans to develop hybrid electric and fuel cell versions of this prototype. Chrysler unveiled its full-size experimental hybrid electric vehicle with a projected 70 miles per gallon fuel economy. These technological advances were made possible through the efforts of the Partnership for a New Generation of Vehicles between the Administration, U.S. auto companies, and their suppliers."

Please document your statement that "These technological advances were made possible through the efforts of the Partnership for a New Generation of Vehicles between the Administration, U.S. auto companies, and their suppliers."

Compressed Air Challenge

DOE

18. On page 6 of your written testimony, you also state:

"Compressed Air Challenge: Air compressors represents about 3% of total industrial electricity use and 1% of total U.S. electricity consumption. In mid-January, DOE and major equipment manufacturers announced a new agreement aimed at significantly enhancing efficiency in this sector. Under the agreement, changes in equipment and operating practices are anticipated to reduce energy use in this category by 10% by 2010 at a cost savings of $150 million per year while reducing greenhouse gases by 700,000 metric tones of carbon."

Definitions and Instructions for the Production of Records

1. When a request calls for the production of records, the Subcommittee requests all responsive records that EPA has in its possession, custody, or control through the date of the final submission of records to the Subcommittee, unless the request clearly states that the Subcommittee is only interested in records EPA received during a particular time period.

2. Please sequentially number all records that you produce to the Subcommittee, and indicate the source of any record if the source is not accurately reflected on the record itself. Please submit all records on single-sided paper and submit an inventory of records produced if the volume is more than 100 pages.

3. To the extent practicable, please organize the records or documents in tabbed binders or folders that indicate which records are responsive to which requests for information.

4. For the purposes of this and related requests in the future, the word "record" or "records" shall include any and all drafts, originals, and non-identical copies of any item whether written, typed, printed, electronically recorded, transcribed, punched, or taped, however produced or reproduced, and includes but is not limited to any writing, transcription, or recording, produced or stored in any fashion, including any and all computer entries, memoranda, notes, talking points, letters, journal entries, reports, studies, calendars, manuals, press releases, opinions, documents, analyses, messages, summaries, bulletins, e-mail messages (in hard copy and electronic forms), disks, the text of any alphanumeric messages or other electronic paging devices, briefing materials, cover sheets or routing cover sheets and any other machine readable material of any sort whether prepared by current or former officers and employees, agents, consultants or by any non-employee without limitation. "Record" or "records" shall also include redacted and unredacted versions of the same record.

White House Climate Change Task Force

734 Jackson Place, N.W. • Washington, DC 20503

FAX

To: Michele Jolin

Organization/Title:

Fax: 395-6958 Phone:

Pages (including cover): Date:

From: Tom Peterson

Phone:

Message:

The attached congressional Q's:
CEA needed for some responses.
Note short deadline. Interim
may be needed in some cases.
Please call to discuss @
343-1093. Thanks,

Tom

18.1 Please provide a listing of the participants of the Compressed Air Challenge.

18.2 Please provide the FY 1998 and proposed FY 1999 funding for the Compressed Air Challenge.

18.3 Please document your statement that "Under the agreement, changes in equipment and operating practices are anticipated to reduce energy use in this category by 10% by 2010 at a cost savings of $150 million per year while reducing greenhouse gases by 700,000 metric tones of carbon."

BP Solar Opening

19. On page 6 of your written testimony, you also state: CEQ

"BP Solar Opening: Last Friday, BP Solar opened its first manufacturing plant in the United States. Located outside San Francisco, the Vice President flipped a switch to start the plant. This facility will produce a new generation of thin film photovoltaic cells. Spurred by DOE's recently announced Million Solar Roof Initiative, planned plant expansions and openings by other solar cell manufacturers, as well as the President's budget request for enhanced funding for renewable technologies, demonstrate that efforts to increase market penetration based on harnessing the sun's energy are now making significant advances. In fact, the Vice President was able to announce that the private partners in the Million Solar Roofs Initiative have already announced plans for well over half the solar panels needed to get to our goal--a full ten years early."

19.1 Why did the Vice President "flip the switch" to start a foreign-owned manufacturing plant? Has the Vice President ever "flipped the switch" to start a domestic-owned manufacturing plant?

19.2 Please provide documentation for your statement that "the private partners in the Million Solar Roofs Initiative have already announced plans for well over half the solar panels needed to get to our goal--a full ten years early."

19.3 If indeed "the private partners in the Million Solar Roofs Initiative have already announced plans for well over half the solar panels needed to get to our goal--a full ten years early" in the absence of taxpayer subsidies, then why is the Administration proposing that taxpayers now subsidize that effort?

VCR/TV Energy Star Program

DOE

20. On page 6 of your written testimony, you also state:

"VCR/TV Energy Star Program: TV and VCRs represent one of the fastest growing sources of electricity demand. Consumers spend over $1 billion annually to power VCRs and TVS that are switched off. In early January the Vice President announced a pathbreaking partnership between EPA and the major manufacturers of these electronic goods. The program is quite ambitious with a goal of achieving up to a 70% reduction in energy use when the equipment is turned off without sacrificing product quality, utility or increasing costs. The average household could cut its energy bills by 30% or $400 per year by switching to the full line of Energy Star products."

20.1 Please identify the TV and VCR manufacturers participating in this partnership.

20.2 Please document the statement that "The average household could cut its energy bills by 30% or $400 per year by switching to the full line of Energy Star products."

Administration's Economic Analysis of the Impact of the Targets Reached in Kyoto

CEA

21. Finally, on page 6 of your written testimony, you state:

"The Administration is working on a more detailed economic analysis of the impact of the targets reached in Kyoto. Council of Economic Advisers Chair Janet Yellen will be prepared to discuss the analysis at a hearing next week before the Senate Foreign Relations Committee."

Please provide a copy of that "more detailed economic analysis" for the record.

Administration Plans for Legislation and Regulations

cc Task Force

22. In the President's State of the Union Address and in the Budget he submitted to the Congress on February 2, there were provisions for federal research and development expenditures and for certain tax incentives for the purpose of reducing U.S. greenhouse gas emissions.

22.1 What is the reason the President has made those proposals prior to his signing the Kyoto Protocol and prior to his submitting the Protocol to the Senate for its advice and consent?

22.2 Is the Administration contemplating submitting to Congress any other legislative proposals, or is it contemplating proposing any new or amended regulations, any of which are intended to reduce U.S. greenhouse gas emissions, prior to the President's signing the Kyoto Protocol and submitting it to the Senate for its advice and consent? If so, please describe the substance of any such legislative or regulatory proposals that are being contemplated?

23. Has any Department or agency of the Executive Branch, or any interagency body, been given the responsibility to develop potential proposals for legislation or regulations that would be intended to facilitate compliance by the United States with the Kyoto Protocol if the Protocol ever were to become binding on this nation?

cc Task Force

23.1 If your answer is yes, please identify the Departments, agencies, or interagency body; and, if it is an interagency body, who is the head of it.

23.2 If there is no interagency body, who in the Executive Branch has the responsibility to coordinate or review these efforts for the purpose of making recommendations to the President?

Entry Into Force

State

24. It will require ratification by 55 countries, representing 55% of developed country greenhouse gas emissions, for the treaty to enter into force. The United States accounts for nearly 40% of these emissions.

24.1 Do you see any chance that the treaty would enter into force if the United States does not ratify it?

24.2 Do you expect other countries ratify the treaty if the United States does not, and if so, which countries?

24.3 What is the earliest you would expect the treaty to enter into force if the United States does not ratify it?

24.4 If there is a prolonged delay in entry into force, what are the consequences for this treaty? For climate change?

Contradictions between the Kyoto Protocol and the Montreal Protocol State

25. Among the six gases to be limited under the Kyoto Protocol are substitutes for chlorofluorocarbons (CFCs) that deplete the stratospheric ozone layer. Therefore, the world's nations have agreed under the Montreal Protocol (to reduce ozone depleting chemicals) that they will seek the use of these substitutes, yet under the Kyoto Protocol they seek to limit use of the substitutes.

25.1 How will this contradiction be dealt with?

25.2 What will the United States do to reconcile these opposing goals?

Electricity Restructuring and Emissions Reductions CEA

26. The Administration has suggested on several occasions that electricity restructuring is one of the means by which the United States will reduce its emissions of greenhouse gases because it will result in greater efficiency and therefore lower emissions of greenhouse gases. However, the October 1997 report by the Energy Information Administration (EIA), *An Analysis of Carbon Stabilization Cases*, projects more emissions of carbon dioxide—not less—as a direct result of currently developed state restructuring efforts. DOE NEC

26.1 How do you explain this apparent direct contradiction?

26.2 If the Administration had counted on reductions in emissions from electricity restructuring, and if on the other hand, EIA is right that state restructuring efforts will result in higher levels of emissions, then how will this affect your calculus of how the United States will meet emission reduction targets?

26.3 When is the Administration releasing its electricity restructuring proposal?

Compliance and Enforcement State

27. The Kyoto Protocol is very vague with respect to compliance and enforcement.

27.1 Is the November 1998 meeting in Buenos Aires going to address these issues" Will specific compliance guidelines result from that meeting?

27.2 What is Administration's position on what those guidelines should be?

27.3 How does the Administration propose to enforce any such compliance guidelines in the United States, ad how can verification and enforcement in other countries be achieved?

Greenhouse Gas "Sinks" CEA ? Mazur group

28. It seems unclear in the Kyoto agreement what will qualify as a greenhouse gas sink—what kinds of forests, forest projects, land use changes or management, etc.

28.1 Please explain the U.S. position on what could constitute a sink, and how they should be counted in assessing our reductions in the greenhouse gas emissions.

28.2 What proportion of U.S. emissions could be offset by these sinks?

Roles of the Council on Environmental Quality (CEQ) and the Chair of CEQ in the Development of the Administration's Climate Change Policy and in the Kyoto Protocol Negotiations

29. Please describe the roles played by the Council on Environmental Quality (CEQ) and the Chair of CEQ in developing: CEQ

29.1 The statement of the Administration's climate change policies in the President's October 22, 1997 speech at the National Geographic Society.

29.2 The Administration's policy approach to, and strategies concerning, the international climate-change negotiations during the period between the President's October speech and the first day of the Kyoto Conference (December 1, 1997); and

29.3 The Administration's policy approach to, and the strategies concerning, the international climate-change negotiations in Kyoto.

White House Task Force on Climate Change CC Task Force

30. When was the White House Task Force on Climate Change established and what its purpose?

31. Please provide a list of all staff and members of the White House Task Force on Climate Change—including detailees from other Executive agencies, consultants, etc.—from its date of establishment to the present.

Post-Hearing Questions Submitted by Representative Roscoe G. Bartlett (R-MD)

Role of Nuclear Power in Reduction of Carbon Dioxide Emissions DOE

1. It the Administration feels that carbon dioxide (CO_2) production is such a menace to our society, why is it not more vigorously proposing an increase in the use of nuclear power production, since that produces no CO_2?

Global Warming OSTP

2. Why does the Administration believe that the modest increase in mean global temperatures over the past century (about 1 degree) is not due to normal fluctuations in the Earth's climate, rather than signaling a permanent "global warming"?

3. If we're moving to global warming, so what? In the past, the Earth has been much warmer than today, and Russia and Canada may not be all adverse to a bit of global warming. There will be winners and losers, but in terms of a global perspective, so what if we're having a bit of global warming?

4. The oceans are enormous sinks for CO_2. What can be done to enhance the effectiveness of oceans as carbon sinks?

Post-Hearing Questions Submitted by Minority Members

Discrepancies Among Economic Analyses of the Costs of Complying with the Kyoto Protocol CEA

1. Most of the witnesses today have cited various economic studies that purport to show the cost of complying with the Kyoto Protocol. Some of these studies seem to suggest that the costs will be minimal and painless, or even result in net economic benefits. Other studies cited seem to show just the exact opposite: that compliance costs will be staggering and result in job losses and economic stagnation. What accounts for such wide discrepancies in these economic analyses?

Relationship of U.S. Commitments Under the Kyoto Protocol to Changes Caused by Electricity Restructuring and Implementation of the New, More Stringent, Clean Air Act Requirements EPA

2. The energy industry is already facing challenges in meeting changes caused by electricity restructuring and implementation of the new, more stringent, Clean Air Act requirements. How will the proposed U.S. commitments under the Kyoto protocol relate to those on-going efforts?

State

Military/National Security Implications of the Kyoto Protocol

3. Does the Kyoto agreement in any way interfere with the ability of the U.S. military to carry out any military mission or protect our national security?

Administration's Intentions to Implement the Kyoto Protocol in the Absence of Senate Ratification

CC Task Force

4. The President has proposed a $6 billion R&D and tax credit program to begin to reduce greenhouse gas emissions. Does this mean that the Administration intends to proceed with implementation, even though the treaty by the Administration's own admission does not meet the President's requirements, and despite the lack of Senate ratification?

STATEMENT OF THE HONORABLE DAN SCHAEFER
SUBCOMMITTEE ON ENERGY AND POWER

HEARING ON THE KYOTO PROTOCOL AND ITS ECONOMIC IMPLICATIONS

MARCH 4, 1998

I'd like to welcome everyone to today's hearing on the Kyoto Protocol and its economic implications.

Unfortunately, after 6 hearings, my concerns about where the Administration is headed with this agreement seem to increase rather than decrease with every time we have an opportunity to look closely at the domestic implications of this issue.

Today I hope to focus my questions on the results of the economic analysis contained in the prepared testimony for today. Last July, the Administration released a document at least 59 people across the Administration spent nearly two years developing. That economic analysis determined the cost of stabilizing greenhouse gas emissions to 1990 levels by the year 2010 would require the equivalent of a $95 per ton carbon tax. The day that document was made public the Administration called it a "flawed" effort.

Today we are presented with the result of analysis conducted, I presume, in the three months post-Kyoto that, apparently using at least one of the same models used in the previous analysis, produces vastly different results for a more ambitious target, $14-23 per ton of carbon.

What disturbs me the most about this outcome is it appears to be based on assumptions about the outcome of future negotiations that may never materialize. To be specific: according to Ms. Yellen's testimony, the cost of complying with the Kyoto Protocol is reduced between 50 and 75 per cent if there is efficient international emissions trading. However, the details of emissions trading are, unfortunately, one of the things the Administration has left to work out in a future negotiation. And other parties to this agreement and non-governmental groups are already positioning themselves to place as many restrictions as possible on emissions trading. In this context, I would remind you of the history of joint implementation. The Rio Treaty provides for it, but in subsequent negotiations the promise it held for significantly reducing costs of compliance proved hollow when it was limited to developed countries only.

Similarly, Ms. Yellen's testimony notes that the cost of compliance is further reduced if we can secure full participation by developing countries in the emissions trading markets. I am extremely disturbed if this was relied upon to reach the cost prediction in today's testimony because with respect to meaningful developing country commitments under the Kyoto Protocol: It is a done deal and they don't have any.

In order for us to fully analyze the Administration's economic analysis and the assumptions used, I am formally requesting that the Administration provide to this Subcommittee, no later than two weeks from today, the complete analysis of the conclusions presented in today's testimony, any other economic analysis that was done that reached different conclusions, and I ask that the Administration send its analysis out for peer review. The reason why understanding this analysis is so important was highlighted in an article that appeared in the Washington Post this morning: Robert Stavins, an economist at Harvard noted: the impact can be relatively small if done in the smartest possible way. "But if we don't do it that way it will cost 10 times what the Administration is saying."

Finally, I am pleased that the Administration is supportive of the idea of electricity restructuring. I too believe it will bring real savings to electricity consumers. Unfortunately, it is becoming clear to me that the Administration support restructuring as a way to mask the costs of complying with this treaty from American consumers. As I stated at the last hearing I would like the benefits of restructuring to flow to the consumers and not be spent buying emissions credits from a foreign government.

I hope today the Administration can answer our questions about the agreement in a straightforward manner. I look forward to the testimony and exploring all of these issues during the question and answer period.

Thank you.

ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

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WASHINGTON, DC 20515-6143

MAJORITY (202) 225-5074
MINORITY (202) 225-5051
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March 6, 1998

MAR - 6

BY FACSIMILE

The Honorable Franklin D. Raines
Director
Office of Management and Budget
Washington, D. C. 20503

The Honorable Kathleen A. McGinty
Chair
Council on Environmental Quality
Washington, D. C. 20502

Dear Director Raines and Chair McGinty:

The Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs is conducting an inquiry concerning the economic, legal, and regulatory implications of the Administration's efforts to jump-start the process of reducing greenhouse gas emissions under the terms of the Kyoto Protocol.

Pursuant to the Constitution and Rules X and XI of the United States House of Representatives, please provide the Subcommittee with detailed information in response to the attached questions. In responding to this inquiry, please restate each question and subpart with each of your answers, and please follow the definitions and instructions concerning the production of records on the attached page.

Please provide your responses to the written questions and requests for production of records by March 20, 1998 to the Subcommittee's office in Room B-377 Rayburn. In addition, please contact Larisa Dobriansky, Senior Counsel, at (202) 225-4407 as soon as practicable to coordinate the timely production of the information to the Subcommittee.

5448

Thank you for your cooperation in this matter.

Sincerely,

David McIntosh

David M. McIntosh
Chairman
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

cc: The Honorable Dan Burton, Chairman
Committee on Government Reform and Oversight

The Honorable John Tierney, Ranking Member
Subcommittee on National Economic Growth,
Natural Resources, and Regulatory Affairs

The Honorable Henry Waxman, Ranking Member
Committee on Government Reform and Oversight

Questions on the Administration's Global Climate Change Policy Actions

IMPLEMENTATION WITHOUT RATIFICATION

"We have no intention through the back door or anything else, without Senate confirmation, of trying to impose or take any steps to impose what would be binding restrictions on our companies, on our industry, on our business, on our agriculture, on our comerce, or on our country, until and unless, the Senate of the United States says so."

Statement of the Honorable Stuart E. Eizenstat
Under Secretary of State for Economic, Business, and Agricultural Affairs
Before the U.S. Senate Committee on Foreign Relations
February 1998

"Whether there is an agreement in Kyoto or not, the United States is prepared, under President Clinton's leadership, to unilaterally take steps that we believe should be taken in order to deal with this problem."

Statement of Vice President Gore
December 1997

Unilateral Executive Actions on a Global Issue.

1. Given that the Kyoto Protocol seeks to address a global issue, isn't it harmful to U.S. interests to proceed without the full participation of developing countries?

2. Besides being unconstitutional, isn't it also premature and possibly counterproductive for the United States to take unilateral executive branch action, without ratification, when the Administration has characterized the Protocol as a "work in progress"?

A Budget Request without Justification or Ratification.

3. How can the Administration claim that its proposed Climate Change Technology Initiative (CCTI) is not intended to implement the Kyoto Protocol, when this initiative has been made an integral part of the President's Global Climate Change Initiative, and the initiative is specifically designed to alter market behavior in furtherance of the treaty's emissions reductions targets?

4a. In a hearing before the Senate Foreign Relations Committee on February 11, 1998, Under Secretary of State Eizenstat testified that the tax incentives and research funding that the President requested in his Fiscal Year (FY) 1999 Budget proposal are necessary to place the U.S. in a "position where we will be further down the road and won't have to make the kind of drastic reductions that otherwise might be called for." Please provide all of the economic data and analyses upon which the Administration relied for this determination. As to any analysis, please identify who prepared it and provide all records containing comments by other federal agencies on the drafts.

4b. Explain why the President decided to request $6.3 billion in his budget proposal instead of the $5 billion that he stated he would seek at the time that he announced his Climate Change Action Proposal on October 22, 1997. Was this decision affected by the fact that the Administration agreed at Kyoto to commit the U.S. to reducing greenhouse emissions by 7% below 1990 levels rather than stabilizing emissions at 1990 levels?

5a. Article 3.2 of the Kyoto Protocol states: "Each Party included in Annex I, by 2005, shall have made demonstrable progress in achieving its commitments under this Protocol." Please explain how the Administration is interpreting this provision of the treaty.

5b. Does the Administration believe that its Global Climate Change Initiative, including the CCTI, will enable the U.S. to make demonstrable progress in achieving its commitments under the Kyoto Protocol?

5c. Please provide and document the Administration's annual performance measures for its 5-year Climate Change Technology Initiative (CCTI). In this regard, provide the following: the 1990 U.S. emissions level, data on actual emissions reductions for Fiscal Year 1997, and then projected emissions reductions beginning with Fiscal Year 1997 and then for each year up to and including Fiscal Year 2003.

5d. Please specify the annual greenhouse gas emissions reductions that the Administration estimates will occur between FY 1999 and FY 2005 from implementing each element of its Global Climate Change Initiative.

6a. The Administration has maintained that the CCTI is a "no-regrets" proposal; that is, regardless of whether or not there is a real threat of global warming, this proposal is justified on its own merits as good energy and environmental policy. In view of this claim, please demonstrate the need for this initiative based on reasons other than facilitating greenhouse gas emissions reductions.

6b. In this regard, provide the environmental and economic data and analyses that support this request on its own merits.

6c. Can the Administration point to a significant market failure or demonstrate a compelling public need that necessitates $3.6 billion of new tax incentives and a 73 percent increase in funding to accelerate the development and diffusion of more energy efficient technology? According to OECD data, U. S. energy efficiency since 1980 has improved more than that of most industrialized countries.

- 6d. Please provide a detailed explanation of and produce all records indicating the alternative policy options that the Administration analyzed, including more broadly-based options, such as integrated pollution prevention, performance-based regulation, and multi-media regulation. In this regard, did the Administration evaluate whether existing regulation may be a significant barrier to improving energy efficiency and the environment?

6e. Please explain in detail and fully document the cost-effectiveness of the Administration's proposal when compared to other available options for improving energy efficiency and the environment.

6f. Please explain in detail and fully document the opportunity costs of committing such a significant amount of our nation's resources in this manner.

6g. As to any analysis provided, identify who prepared it and provide all records of comments by other federal agencies.

7. How realistic and achievable are the targets and timetables that the U.S. delegation agreed to at Kyoto, if it is necessary to take unilateral executive branch actions prior to Senate ratification in order "to get us in a position where we will be further down the road and won't have to make the kind of drastic reductions that otherwise might be called for"?

8. Under section 102 of the **National Environmental Policy Act**, the federal government is required to provide a detailed environmental impact statement (EIS) and to follow specified procedures for review and comment whenever it is recommending to Congress legislation that "affects the quality of the human environment". Please provide any EIS (or draft EIS, if not finalized) that was prepared in connection with the Administration's requests for tax incentives and research funding to facilitate greenhouse gas emission reductions. With respect to any EIS, identify who prepared the document and provide all records of written and oral comments from other federal agencies.

The Inescapable Regulatory Backdoor.

9. In its 1997 U. S. Climate Action Report under the current Framework Convention on Climate Change, the Administration made this statement: "Recognizing that even the most draconian measures would likely be insufficient to reverse the growth in greenhouse gases and return U.S. emissions to their 1990 levels by the year 2000, new U.S. efforts are focusing most intensively on the post-2000 period." Based on this assessment, how can the President assert that the U.S. commitments under the Kyoto Protocol are achievable with minimum economic costs? Provide any economic and legal analyses that demonstrate that U.S. obligations can be met without constraining U.S. economic growth and without imposing onerous and costly regulation. Also, please provide two copies of the 1997 U.S. Climate Action Report.

10a. In testimony before the Senate Foreign Relations Committee on February 11, 1998, Ambassador Eizenstat stated that the only legislation that would be required to enable the U.S. to abide by the Kyoto Protocol would be legislation authorizing emissions trading; otherwise, he indicated that the U.S. could rely on existing legislation. In this regard, please provide all legal and policy analyses performed by the State Department and other federal agencies on whether, and to what extent, new implementing legislation would be required to meet the U.S. commitments under the Kyoto treaty and provide all comments thereon by other agencies.

10b. Also, please provide any and all legal and policy analyses developed by the State Department or other federal agencies regarding the applicability and availability of existing legislation to implement the Protocol and all comments thereon by other agencies.

11. To the extent that analyses have been performed, describe any differences between the legislation and regulations that would have been needed to implement the President's October 1997 Climate Change Action Proposal and that which would be needed to implement the Kyoto Protocol.

12. Is there an agency or interagency group that is developing recommendations on the need for implementing legislation? If so, please identify the persons who have been charged with coordinating this effort and the names of the agency representatives who are participating.

13a. Please identify all environmental and energy regulations that are being developed, have been proposed, or have been issued since 1992 that have or will have the effect of reducing greenhouse gas emissions (whether or not that is the intended purpose of the particular regulation). As to those regulations that are being developed or that have been proposed, provide an estimated timetable for each stage of the rulemaking.

13b. Has OMB or any other federal agency prepared, contracted to have prepared, or considered any studies that: (1) Have calculated the potential cumulative costs of environmental and energy regulations that are presently planned or being developed, have been proposed, or already have been issued since 1992 that have or will have the effect of reducing greenhouse gas emissions (whether or not this is the intended purpose of the regulation); and (2) Have assessed the cumulative effects of these regulations, or any combination of them, on the U.S. energy system and economy? If so, please provide any such analyses and all federal agency comments on any drafts. If not, please indicate why this has not been done. This Subcommittee believes that this information is vitally needed and is requesting that such an analysis be performed.

13c. Please provide any analyses that have been performed or considered by the Administration concerning the potential combined effects on the U.S. economy and energy system of such Clean Air Act regulations, as the recently issued National Ambient Air Quality Standards for particulate matter and ozone, and regional haze proposal; the Administration's proposed measures for implementing the requirements of the Kyoto Protocol; and its planned legislative proposal for restructuring the electrical industry.

POLICIES WITHOUT ECONOMIC ANALYSIS

> "By providing incentives for early action to reduce emissions, attacking domestic energy inefficiencies, and putting in place a market-based emissions trading system, we can reach [our emission reduction targets] with minimum economic costs."

Statement of President Clinton
Climate Change Proposal
October 1997

The Administration's Repeated Failure to Conduct Economic Analysis.

14a. Given the significant economic costs projected by private sector studies, why did the Administration abandon a year and a half-long effort to develop cost estimates of the President's proposed policies to reduce greenhouse emissions? In testimony before the House Subcommittee on Energy and Power on July 15, 1997, the Chair of the Council of Economic Advisers, Dr. Janet Yellen, stated that President Clinton's top priority since his first days in office "has been revitalizing the U.S. economy, creating jobs, and investing in people and technology to enhance long-term growth."

14b. How can the Administration defend its policy actions based on the results of climate models that must take into account significant uncertainties surrounding the effects of human activities on the climate, yet nevertheless consider economic modeling to be "futile" (Dr. Yellen's expression at the House Commerce hearing on July 15, 1997)?

15a. In testimony before the House Commerce Committee in 1997, former Under Secretary of State Timothy Wirth stated that an interagency "economics team" was formed to analyze the impacts of climate change policies.

15b. Please provide the following background information regarding that group: when it was formed, the names of the participants and their agencies, the head of the team, the scope of the group's responsibilities, and to whom the group reported.

15c. Please produce records of all meetings of this group and information on any workshops conducted. Also, produce all analyses performed by the group and provide all records of written or oral comments from other federal agencies on the team's analyses and advice.

16. In developing its positions for the Conference in Kyoto, did the Administration at any point renew its efforts to estimate the costs of various policies to reduce greenhouse gas emissions? If so, please provide all economic analyses that were prepared for the Administration and the U.S. delegation to review. As to each analysis, please indicate who prepared the analysis

and provide all records containing comments from other federal agencies. If not, please explain fully why not.

17. Is there currently in place an interagency body that is analyzing the economic impacts on the U.S. of the mandatory restrictions specified in the Kyoto Protocol and evaluating alternative domestic policies to achieve those requirements? If so, please provide the same type of information about this group, as well as produce the same type of documents, which were requested in question number 15 above with respect to the "economics team."

18. During its deliberations prior to Kyoto, did the Administration consider whether an agreement to stabilize emissions at 1990 levels or to reduce emissions below 1990 levels would result in lower economic growth? If so, how much lower economic growth did the Administration consider as acceptable in exchange for a treaty that would have at best only a marginal impact on reducing emissions? Please produce all records of such deliberations and all economic analyses and comments thereon (from federal agencies and private parties) that the Administration considered.

19. If the Administration did not prepare cost estimates of the impacts on the U.S. economy and the American people, how did the Administration determine its policy position first to stabilize emissions at 1990 levels by 2008-2012 and then later to deviate with confidence from that position and commit the U.S. to reducing emissions by 7 percent below 1990?

20. At what point prior to or during the negotiations, did the Administration decide that emissions reductions below the 1990 baseline were acceptable? Who in the Administration and in Congress were consulted in making this decision? Did the Administration examine any public or private analyses in reaching this decision? If so, identify and provide the analyses upon which the Administration relied, with all comments that were submitted by any federal agency.

21. If economic analyses were prepared internally to support positions that the Administration intended to take at the Conference, why weren't these analyses made available to Congress and the American public, who all have a right-to-know the potential economic consequences of the President's climate change policies?

22. Did the Administration review any private sector analyses completed prior to Kyoto? If so, please provide all records of comments thereon by federal agencies.

23. The Clinton Administration indicated its recognition of Senate Resolution 98 (the Byrd-Hagel Resolution). Please describe in detail and document the steps that the Administration already has taken and intends to take to assure compliance with each provision of that Resolution.

No Cost/Benefit Analysis of the Kyoto Treaty.

24a. Please provide any and all analyses that the Administration or any federal agency prepared (or is preparing) of the costs and benefits of imposing on the U.S. the binding targets and timetables set forth in the Kyoto Protocol for reducing greenhouse gas emissions, taking into account the global implications of the way in which this agreement is structured. Also, please analyze and document the following:

24b. Whether the benefits of implementing this Protocol are justified by the costs;

24c. Evaluate the effectiveness of this agreement by comparing the marginal abatement costs of the most plausible alternative scenarios for meeting the Kyoto targets, given the way in which this agreement is structured, with the marginal costs of other reasonable alternative compliance schemes;

24d. With respect to each scenario that is analyzed, identify the assumptions used, explain any uncertainties concerning the assumptions, and examine the sensitivity of net benefits to the different compliance strategies, using a range of plausible assumptions about future economic development and about fundamental climate processes;

24e. Evaluate the opportunity costs of pursuing the Administration's strategy for the abatement of greenhouse gas emissions under the terms of the treaty; and

24f. Evaluate how the benefits and burdens of complying with this treaty would be distributed on the national and household levels, describing, among other things, the disparate regional and industrial sector impacts, and the effects on different income levels.

25a. In evaluating alternative scenarios, please examine the following:

25b. Compare the economic and environmental effects of not including developing countries in the effort to reduce global emissions (with the potential for binding developed countries to even greater obligations, without limiting developing countries) against the effects of addressing greenhouse gas mitigation on a global scale by the international community.

25c. Compare the economic and environmental effects of complying within the timeframes set forth in the Kyoto Protocol with the effects of complying over a longer time period.

25d. Compare the impacts of reducing greenhouse emissions using international emissions trading, joint implementation, and the Clean Development Mechanism with the impacts of relying upon domestic emissions permit trading. In this regard, evaluate alternative international trading scenarios: trading only between Annex I countries, trading that extends to a number of "key" developing countries, and trading in which all countries are fully participating.

26. With respect to any analysis provided, please identify and explain the basis for assumptions used regarding such factors as the rate of improvement in energy efficiency, the effectiveness of market incentives in increasing the market share of fuels that emit less carbon, and economic and demographic growth. Also, explain fully any assumptions on how emissions reductions will be achieved, as for example, through the early retirement of coal plants or nuclear plant life extensions.

27. In considering the opportunity costs, evaluate the extent to which the Administration's climate change strategy will require the diversion of funds from savings and/or investments which would have provided other benefits, such as saving social security, or more funding for education, health care, etc.

28. In assessing the impacts on the U.S. of complying with the Kyoto targets and timetables, please explain in detail the potential effects on the following indicators of economic performance: gross domestic product (GDP), per capita GDP, unemployment, income and real wages, trade competitiveness, and energy prices.

29. In assessing the benefits of complying with the Kyoto treaty, please evaluate fully the potential offsetting negative effects of exempting developing countries and of "carbon leakage." Also, if the economies of developed countries experience reductions in economic growth, evaluate the impact that this will have on the ability of emerging countries with export markets to transition to more energy efficient technologies.

30. President Clinton has suggested that the U.S. economy can continue to grow under this agreement. Please indicate at what rate the Administration expects that the economy will continue to grow during the next ten to 20 years if the treaty is ratified and at what rate it is expected to grow if the treaty is not ratified.

31. Have any of the cost/benefit analyses performed by the Administration or any agency been peer-reviewed? If so, please identify the reviewers provide their comments on the analyses. If not, does the Administration plan to do so? Please describe fully the steps that the Administration plans to take.

32. Please describe in detail the strengths and weaknesses of the methodology of any economic models used. Also, indicate the differences between the models used in any of the cost/benefit analyses performed post-Kyoto and those used in any prior analyses performed by the Administration.

33. In connection with these cost-benefit analyses, fully explain how the baseline(s) against which costs and benefits were calculated was determined.

34a. - Please provide all records of written or oral comments from other federal agencies on each of the cost/benefit analyses that were performed.

34b. Please provide all records of comments submitted by federal agencies on Dr. Janet Yellen's draft testimony about the economics of Kyoto for the hearing before the House Commerce Committee on March 4, 1998.

International Emissions Trading: Not a Panacea.

35. As a practical matter, until the Conference of the Parties makes all of the decisions that it is empowered to make under Article 17 of the Kyoto Protocol concerning the establishment of rules and procedures for international emissions trading, isn't it premature for the Administration to forecast definitively that the agreement would result in, at most, modest energy price hikes?

36a. With respect to the rules and procedures for international emissions trading that have yet to be developed, what are the minimum requirements that the Administration is seeking to assure an efficient and effective system for lowering the costs of emissions reductions?

36b. Does the Administration intend to confer with Congress and obtain comments from Congress and the public in developing negotiating positions for Buenos Aires on rules and procedures for an international emissions trading system and for obtaining joint implementation project credit, including the Clean Development Mechanism?

37a. Why does the Administration believe it can obtain meaningful participation by developing countries and what steps is the Administration taking to achieve this? What indications of potential meaningful participation have been shown by developing countries that prompt this optimism?

37b. In particular, what are the steps being taken with respect to China, India, Mexico, Brazil, and South Korea and what indications of potential meaningful participation has the Administration received from these countries?

37c. Which countries does the Administration consider "key," in assuring that "meaningful participation" is secured?

38. Why does the Administration maintain that the U. S. acid rain program experience "clearly demonstrates how programs like international permit trading, joint implementation and the Clean Development Mechanism will lead firms to find cheaper ways of reducing emissions that can lead to unexpectedly low costs"? Is it appropriate for the Administration to extrapolate from that experience to the global arena? Won't the effectiveness of the international system, joint implementation, and the Clean Development Mechanism depend on such factors as the rules and procedures governing these mechanisms, the extent of participation by other countries, including developing countries, etc?

39a. - Even assuming that effective rules and procedures can be developed for an international emissions trading system and for joint implementation projects and that key developing countries agree to participate, isn't there a real risk that these mechanisms could effect an enormous transfer of wealth and jobs out of this country overseas, especially to the countries of the former Soviet Union and emerging countries (i.e., that this system would be essentially a foreign aid program)? Some studies have estimated that more than 50% of our reductions would have to be purchased from other countries.

39b. Please provide and document estimates of the percentage of U.S. emissions reductions that might have to be purchased from other countries to minimize the costs of reducing emissions and which countries likely would be the beneficiaries.

Definitions and Instructions for the Production of Records

1. When a request calls for the production of records, the Subcommittee requests all responsive records that EPA has in its possession, custody, or control through the date of the final submission of records to the Subcommittee, unless the request clearly states that the Subcommittee is only interested in records EPA received during a particular time period.

2. Please sequentially number all records that you produce to the Subcommittee, and indicate the source of any record if the source is not accurately reflected on the record itself. Please submit all records on single-sided paper and submit an inventory of records produced if the volume is more than 100 pages.

3. To the extent practicable, please organize the records or documents in tabbed binders or folders that indicate which records are responsive to which requests for information.

4. For the purposes of this and related requests in the future, the word "record" or "records" shall include any and all drafts, originals, and non-identical copies of any item whether written, typed, printed, electronically recorded, transcribed, punched, or taped, however produced or reproduced, and includes but is not limited to any writing, transcription, or recording, produced or stored in any fashion, including any and all computer entries, memoranda, notes, talking points, letters, journal entries, reports, studies, calendars, manuals, press releases, opinions, documents, analyses, messages, summaries, bulletins, e-mail messages (in hard copy and electronic forms), disks, the text of any alphanumeric messages or other electronic paging devices, briefing materials, cover sheets or routing cover sheets and any other machine readable material of any sort whether prepared by current or former officers and employees, agents, consultants or by any non-employee without limitation. "Record" or "records" shall also include redacted and unredacted versions of the same record.

ONE HUNDRED FIFTH CONGRESS

Congress of the United States

House of Representatives

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UNITED STATES CONGRESS

FAX TRANSMISSION

To: Honorable Janet Yellen ATTN: Michele Jolin 395-6958

From: Honorable Dan Schaefer c/o Carter Smith

Date: February 27, 1998

Number of Pages (including cover sheet): 3

Notes:

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Committee on Commerce
Room 2125, Rayburn House Office Building
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February 27, 1998

The Honorable Janet Yellen
Chair
Council of Economic Advisors
Old Executive Office Building
Washington, D.C. 20502

The Honorable Stuart E. Eizenstat
Under Secretary for Economic
Business and Agricultural Affairs
U.S. Department of State
2201 C Street, N.W.
Washington, D.C. 20520

Dear Ms. Yellen and Under Secretary Eizenstat:

Thank you for agreeing to testify before the Subcommittee on Energy and Power next Wednesday on behalf of the Administration. As you know, the topic of the hearing will be the "Kyoto Protocol and its Economic Implications," and we will focus on the overall terms, objectives, and implementation of the Kyoto Protocol. To that end, I anticipate extensive Member interest and questions regarding any economic modeling the Administration has done to assess the economic effects of the Kyoto Protocol.

In preparing for this hearing, I am troubled by the fact that the Administration still owes the Subcommittee answers to questions that were posed in writing jointly to Ms. Yellen and Under Secretary Timothy Wirth over six months ago. By letter dated August 22, 1997, I submitted 36 questions on Global Climate Change matters. The Administration's response dated September 30, 1997 not only neglected to answer 11 of these questions entirely, but also fell far short in providing responsive answers to those questions it chose to address. In subsequent testimony before my Subcommittee on November 5, 1997, Under Secretary Wirth agreed with this assessment, promising to "fix" the problem:

> [W]e appreciate the forbearance of the Committee and its staff on the response to letters which the Committee sent us in August and October. Bluntly, we've not done a good job responding thoroughly and promptly to your requests, and that is not the respect with which the Committee is due, and we'll fix that issue.

The Honorable Janet Yellen
The Honorable Stuart Eizenstat
February 27, 1998
Page 2

Soon after that hearing, Committee staff met with Administration officials to specifically detail those questions which still required initial or further responses, and were assured that complete answers to these questions would be forthcoming shortly. To date, your answers are still outstanding. This tardiness is inexcusable. Accordingly, I am writing to request that the Administration provide to the Committee answers to these questions prior to next week's hearing. Please submit these responses when you provide the advanced copies of your prepared testimony.

In addition, it has come to my attention that during a February 11, 1998 Global Climate Change hearing before the Senate Foreign Relations Committee, Ambassador Eizenstat, representing the Administration, testified that the Administration's economic analysis on the Kyoto Protocol was nearly ready. In fact, he went so far as to testify that the economic analysis would be ready "literally within a week or two, and at an appropriate Congressional hearing [the Administration] will lay that out." Based upon Ambassador Eizenstat's statements, this analysis should now be complete.

Given the long-standing interest of this economic analysis to Subcommittee Members on both sides of the aisle, and given its direct relevance to next week's hearing, I am requesting that you come prepared to discuss the findings and merits of this analysis. In addition, please provide copies of this economic analysis when you provide the advanced copies of your prepared testimony.

Thank you for your cooperation on this matter. If you have any questions concerning this request, please contact Ms. Catherine Van Way of the Commerce Committee staff at 225-2927.

Sincerely,

Dan Schaefer
Chairman
Subcommittee on Energy and Power

cc: The Honorable Ralph Hall, Ranking Member
Subcommittee on Energy and Power

CEA Responses to Written Questions Submitted by the Senate Committee on Foreign Relations

Hagel

10. Last year, the Administration abandoned a year and half-long effort to develop an economic model that would show that we could make major cuts in energy use in this country without harming our economy. The Chair of the Council of Economic Advisers went so far as to call economic modeling "futile." On February 4, 1998 the Chair of the Council on Environmental Quality, Kathleen McGinty said before the House Science Committee, "The Administration is working on a more detailed economic analysis of the impacts of the targets reached in Kyoto. Council of Economic Advisers Chair Janet Yellen will be prepared to discuss the analysis at a hearing next week before the Senate Foreign Relations Committee." Can you tell me why the Administration did not produce either Janet Yellen as a witness or the promised detailed economic model or analysis?

> Dr. Yellen was unable to complete preparation of testimony and interagency clearance by the Committee's hearing deadline because of her obligations associated with the release of the 1998 Economic Report of the President. Dr. Yellen did testify before the House Commerce Committee on Wednesday March 4 and the Senate Agriculture Committee on Thursday March 5 on the Administration's economic analysis.

12B. Is there currently in place any interagency body within the Executive Branch that has the responsibility to analyze the economic implications to the nation of the emissions reduction requirements specified in the Kyoto Protocol for the United States and of alternative domestic policies to achieve those reduction requirements?

> The Administration has undertaken economic analysis and included the participation of multiple agencies. Traditionally, the National Economic Council has coordinated and continues to coordinate, interagency discussions of various aspects of the Administration's climate change initiative.

12B.1. If yes, what is the name of that interagency body? Who is the chair of that body? Are you a member of that body?

> Not applicable.

33.1. Do you believe that, until the Conference of the Parties makes all of the decisions that it is empowered to make under those Articles of the Kyoto Protocol, it will be impossible for either the Administration or the Congress to know the extent to which those articles -- in reality -- would or could reduce the nation's cost of complying with the emissions reduction requirement set forth in the Protocol?

The Kyoto Protocol establishes international trading of emissions rights across Annex I countries. The Administration's policy is to secure rules that ensure an effective international market for emissions rights. It is impossible to know exactly the magnitude of the cost reduction associated with international trading, because of many uncertainties. Some of these uncertainties will be addressed in subsequent negotiations, however, many uncertainties are associated with the inability to precisely predict the state of the U.S. and global economies a decade from now. It is possible to draw from the economic literature on trading, descriptive statistics of Annex I economies, and the results from modeling exercises to illustrate the substantial gains possible through international trading. The finding that effective international trading can significantly reduce compliance costs is quite robust.

Helms

In addition to your assertions of increased energy efficiency, and international emissions trading, please detail how the Administration intends to reach these enormous commitments without constraining U.S. economic growth?

In addition to increased energy efficiency and international emissions trading among Annex I countries, substantial cost reductions are possible if key developing countries can be persuaded to commit to quantitative targets enabling them to participate in international emissions trading arrangements. Significant benefits should also accrue from the more limited role that developing countries have already agreed to: the Clean Development Mechanism. A number of additional factors can also play a role in enabling the United States to meet its target without constraining economic growth. These include the use of carbon absorbing sinks to offset greenhouse gas emissions and the flexibility allowed by the Kyoto Protocol to meet the U.S. target through reductions in all six greenhouse gases and not just CO_2 alone. The President has also indicated his support for legislation to unleash competition in the electricity industry. Such legislation could lower electricity prices significantly for American consumers and also reduce greenhouse gas emissions. [Further details concerning the Administration's analysis of how the Kyoto targets can be attained without constraining U.S. economic growth are contained in the attached testimony of Janet Yellen before the House Commerce Committee.]

CC: JA
AM ← orig

QUESTIONS FOR THE RECORD
FOR UNDERSECRETARY OF STATE STUART EIZENSTAT
SUBMITTED BY SENATOR CHUCK HAGEL
UNITED STATES SENATE COMMITTEE ON FOREIGN RELATIONS
HEARING ON IMPLICATIONS OF THE KYOTO PROTOCOL
February 13, 1998

1. When the Congressional delegation met with Vice President Gore in Kyoto, I asked the Vice President exactly what he meant when he called on you and the rest of the U.S. delegation to show more flexibility. The Vice President said that he would defer that question to you, but you were not at that meeting. Can you tell us exactly what instruction you received from the Vice President and what he meant when he instructed you to be more flexible in the negotiations?

2. Please define for me: "meaningful participation from key developing countries?"
   2.1 What countries do you define as "key?" Do you consider China a "key" developing country? Do you consider India a "key" developing country?

3. The Administration's position on the issue of developing country participation has been much weaker than that unanimously urged by the Senate in Senate Resolution 98. The President has called for "key" developing countries to participate in a "meaningful" way, while the unanimous view of the Senate was that "the United States should not be a signatory to any protocol which would mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for the Developing Country Parties within the same compliance period." Why did the Administration use a different standard than that voted unanimously by the Senate?
   3.1 Does the Administration intend to adhere to the letter of S. Res. 98, that is to negotiate legally-binding, specific new scheduled commitments within the same compliance period for the Developing Country Parties currently left out of the Kyoto Protocol?
   3.2 At what point, specifically, will the Administration reconsider the viability of the Kyoto Protocol if emission reduction commitments cannot be secured from the Developing Country Parties?
   3.3 Does the President intend to honor the unanimous request of the Senate not to be a signatory – that is not to sign the Protocol – until we have met both objectives of the Byrd-Hagel resolution test: emission reduction commitments from the Developing Country Parties and a demonstration that the Protocol will not seriously harm the U.S. economy?

4. Does the FY99 budget contain any programs or budget requests that could have the effect of implementing portions of the Kyoto Protocol? Please provide the Committee with a

list of all climate change programs in the Executive Branch, with a description of each program and how they relate to the Kyoto Protocol.

5. Article 3 calls for the U.N. Subsidiary Body for Scientific and Technological Advice to report within a year on which additional activities should be regulated by the treaty. What specific additional domestic U.S. economic activities do you believe should be brought under the jurisdiction of the Kyoto Protocol?

6. Article 5 calls on countries to enhance their monitoring systems of greenhouse gas emissions. Will the Administration make any changes in our existing monitoring systems prior to Senate ratification of the treaty?

7. Article 6 delays the implementation of any international emissions trading system among industrial countries until some later U.N. conference establishes procedures for verification and reporting. Do you believe that a fully functioning trading system will, in fact, be adopted next November in Buenos Aries?

8. Article 11 requires the industrial countries to "provide new and additional financial resources" to developing countries. What exactly does this mean, in terms of the U.S. budget?
   8.1 Does the Administration plan to implement this requirement of the Kyoto Protocol before Senate ratification?

9. Article 12 creates a new U.N. foreign aid fund on the climate change issue. This is the "Clean Development Mechanism." This Article creates a new U.N. structure for the transfer funds from industrial to developing nations. It would permit industrial countries or companies to pay into a fund that would, in turn, pay for projects in developing nations to achieve "sustainable development" and to reduce greenhouse gas emissions beyond what they would otherwise be. Article 12 also contains language that would permit the U.N. Clean Development Mechanism to retain a portion of the funds it receives for its own administrative purposes. Early versions of this Brazilian proposal forthrightly referred to this as "user fee" authority, a form of U.N. taxation authority. Does the Administration have any concerns about granting this kind of fee retention authority to a U.N. body?

10. Last year, the Administration abandoned a year and a half-long effort to develop an economic model that would show that we could make major cuts in energy use in this country without harming our economy. The Chair of the Council of Economic Advisors went so far as to call economic modeling "futile." On February 4, 1998 the Chair of the Council on Environmental Quality, Kathleen McGinty said before the House Science Committee, "The Administration is working on a more detailed economic analysis of the impact of the targets reached in Kyoto. Council of Economic Advisers Chair Janet Yellen will be prepared to discuss the analysis at a hearing next week before the Senate Foreign Relations Committee." Can you tell me why the Administration did not produce either Janet Yellen as a witness or the promised detailed economic model or analysis?

CEA

11. Were you involved in developing the statement of the Administration's climate change policies announced by the President in his October 22, 1997 speech at the National Geographic Society, and, if you were, will you please describe for us the role you played?

11.1 When were you told that you would be head of the U.S. delegation at the third session of the Conference of the Parties to the United Nations Framework Convention on Climate Change; and who told you?

11.2 Will you please describe for us the role you played in developing the Administration's policy approach to, and strategies concerning, the international climate-change negotiations during the period between the President's October 22 speech and the first day you arrived at the Kyoto Conference?

11.3 At the Kyoto Conference, you were the head of the U.S. delegation. Will you please describe the role you played in developing the Administration's policy approach to, and strategies concerning, the international climate-change negotiations in Kyoto; and, in doing so, will you please describe on a comparative basis the decision making authority within the delegation of you, Ms. Kathleen McGinty, and Mr. Todd Stern?

12. A In his testimony last fall before the House Commerce Committee, former Under Secretary of State Wirth referred to the Administration's "economics team" in response to Committee questions about economics issues relevant to the international climate change negotiations. Prior to your appointment as head of the U.S. delegation for the Kyoto Conference, did you regard yourself as part of the Administration's "economics team" with respect to the international climate-change negotiations?

12.1 From and after the time you were appointed head of the U.S. delegation, was there an "economics team" concerning the international climate-change negotiations, and, if there was, who were its members and who headed the "economics team?"

12. B Is there currently in place any interagency body within the Executive Branch that has the responsibility to analyze the economic implications to the nation of the emissions-reduction requirements specified in the Kyoto Protocol for the United States and of alternative domestic policies to achieve those reduction requirements?

CEA

12.1 If yes, What is the name of that interagency body? Who is the chair of that body? Are you a member of that body?

13. You were appointed head of the U.S. delegation at the Kyoto Conference after former Under Secretary of State Wirth announced his intention to resign as Under Secretary for Global Affairs. The President has not yet sent to the Senate his nomination of a successor to Mr. Wirth. Are you currently proceeding on the assumption that, unless and until you are informed by the Secretary of State or the White House to the contrary, you are the senior State Department official who has immediate responsibility for the Administration's policy approach to, and strategies concerning, international climate-change negotiations?

13.1 What is your current assumption about whether you or Mr. Wirth's successor, if and when confirmed by the Senate, will head the U.S. delegation at the fourth session of the Conference of the Parties when it meets in Buenos Aires in November?

14. In his October 22, 1997 speech at the National Geographic Society, the President said: "First, the United States proposes at Kyoto that we commit to the binding and realistic target of returning to emissions of 1990 levels between 2008 and 2012. And we should not stop there. We should commit to reduce emissions below 1990 levels in the five-year period thereafter, and we must work toward further reductions in the years ahead." As of the time you arrived at the Kyoto Conference, or at any time during the Kyoto Conference, were you informed of:

- what the President's October proposal would require of the United States in terms of the tons of carbon-equivalent emissions reductions;
- what domestic laws and regulations likely would be required to enable the United States to abide by the President's October proposal; and
- what the economic consequences to the nation likely would be if the President's October proposal were the basis for a protocol?

14.1 For any affirmative response to any of the above questions,

- Who gave you that information, and when?
- Please tell us what portions of the information were in written form, by way of briefing papers or otherwise, including any notes you made of information that was given to you?
- To the extent the information to which I have referred was not given to you in written form or reflected in any notes you made of the information given to you, would you please tell the Committee:
  - what the President's October proposal would require of the United States in terms of the tons of carbon-equivalent emissions reduction;
  - what domestic laws and regulations likely would be required to enable the United States to abide by the President's October proposal; and
  - what the economic consequences to the nation likely would be if the President's October proposal were the basis for a protocol?

14.2 Prior to your leaving for the Kyoto Conference, was it your understanding that the President's October proposal for emissions "targets and timetables" presupposed that a protocol would provide for emissions trading among Annex I Parties and for "joint implementation" among and between Annex I and non-Annex I Parties?

14.3 Prior to your leaving for the Kyoto Conference, what was your belief as to how difficult it would be for the United States to achieve the emissions limitation that was proposed in the President's October speech, assuming a protocol provided for emissions trading among Annex I Parties and for "joint implementation" among and between Annex I and non-Annex I Parties?

15. As you know, the Kyoto Protocol, if it ever were to become binding on the United States, would require our nation to reduce its emissions of greenhouse gases by 7 percent below their 1990 levels during the period 2008 through 2012, all in accordance with the specific provisions of the Protocol concerning the list of greenhouse gases, sinks, baseline dates, and so forth. I refer you to a document entitled "Fact Sheet: The Kyoto Protocol on Climate Change," dated January 23, 1998. It states that it was prepared by the Department of State's Bureau of Oceans and International Environmental and Scientific

Affairs." Did you, personally, approve issuance of that "Fact Sheet," and, if you did not, who was the highest ranking official of the State Department who approved its issuance?

15.1 The State Department's "Fact Sheet" states: "The 7 percent target represents at most a 3 percent real reduction below the President's initial proposal of reducing greenhouse gases to 1990 levels by 2008-12. The remaining 4 percentage points result from certain changes in the way gases and sinks are calculated and do not reflect any increase in effort as compared to the President's original proposal." The document then goes on to attribute one percentage point of the 4 percentage points to changing the baseline from 1990 to 1995 for the three synthetic gases covered by the Kyoto Protocol (HFCs, PFCs, and SF_6). It further attributes "about 3" percentage points of the 4 percentage points to not including in the 1990 baseline U.S. sinks, but including certain changes in sinks during the period 2008 through 2012. Was an analysis, which showed that the Kyoto Protocol involves "at most a 3 percent real reduction" of U.S. greenhouse gas emissions below 1990 levels furnished to you while you were in Kyoto and before you agreed to the 7 percent reduction figure; and, if so:

- Who prepared the analysis?
- Who furnished you the analysis, and when?
- Were you given or shown any such analysis in writing?

15.2 Please tell us which other nations -- at the time of the Kyoto Conference, but before actual adoption of the Kyoto Protocol -- were informed, either by you or by any other member of the U.S. delegation, that the Kyoto Protocol, as finally proposed to be adopted by the Kyoto Conference, would entail at most a 3 percent real reduction of U.S. greenhouse gas emissions below 1990 levels?

- Was Chairman Estrada of the Committee of the Whole informed of that; and, if so, when?
- Were any member nations of the European Union informed of that; and, if so, which ones and when?
- Were any developing nations, including, but not limited to, China, India, Argentina, Brazil, or any member nation of the Alliance of Small Island States informed of that; and, if so, which ones and when?

16. Article 3.1 of the Kyoto Protocol states that the emissions reduction requirements of the Annex I Parties set forth in Annex B to the Protocol, in accordance with the provisions of Article 3, are "with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012." My recollection is that Ambassador Estrada, who chaired the AGBM and the Committee of the Whole, stated that the reduction of the Annex I Parties would amount to about 5.2 percent below 1990 levels. If the "real" reductions or limitations of the Annex I Parties are calculated in the same manner as the proposed U.S. reduction is calculated in the State Department's "Fact Sheet" — in other words, taking into account the 1995 baseline for the three synthetic gases and the provisions regarding sinks -- shouldn't we conclude that the "real" reductions of the Annex I Parties below 1990 emissions levels will be less than 5 percent?

16.1 Putting it another way, if the U.S. reduction is "at most a 3 percent real reduction" below 1990 levels, that would be less than one-half of the 7 percent proposed reduction for our nation set forth in Annex B to the Kyoto Protocol. I understand that the United States accounted for perhaps as much as one-third or more of the Annex I Parties' gross emissions in 1990; Russia (the next largest Annex I emitter of greenhouse gases), as well as New Zealand and Ukraine, refused to agree to any reductions below their respective 1990 emissions levels; and Australia would be allowed to increase its emissions by 8 percent over its 1990 level. In these circumstances, can you explain how the aggregate reductions of the Annex I Parties during the period 2012 through 2018 will achieve the 5 percent reduction level referred to in Article 3.1 of the Kyoto Protocol?

16.2 As far as the Administration is concerned, is the phrase "with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012," as set forth in Article 3.1 of the Kyoto Protocol, anything more than a purely political statement; or, could it in any manner be interpreted as placing on the United States a legal obligation over and above the 7 percent reduction set forth in Annex B, when interpreted in accordance with the balance of Article 3 without regard to that phrase?

17. The fact sheets and related documents that were distributed by the White House, along with the text of the President's October speech, stated with respect to the emissions target and timetable he had announced: "And it is meaningful. Achieving 1990 levels in the period 2008-12 would amount to almost a 30 percent reduction off a business-as-usual approach." Even assuming, for the sake of our discussion, that the 7 percent reduction referred to in Annex B of the Kyoto Protocol amounts to "at most a 3 percent real reduction" below 1990 levels, would you please:

Mark
- tell the Committee how many millions of tons of reduction will have to occur in 2012 (the last year of the first commitment period) compared to the baseline emissions projections for that year; and
- explain why the Administration agreed in Kyoto to a legally binding obligation to reduce our greenhouse gas emissions by such amount below 1990 levels during the period 2008 through 2012?

17.1 Given the provisions in the Kyoto Protocol concerning the baseline for the three synthetic gases and the provisions regarding sinks, if the U.S. delegation had insisted at the Kyoto Conference on percentage figures in Annex B to the Protocol that would have resulted, in reality, in a U.S. commitment only to return its greenhouse gas emissions to their 1990 level, rather than the 3 percent reduction claimed in the State Department's "Fact Sheet," please tell us, based on your discussions with other nations, which of them, if any, would have formally objected to adoption of such a protocol?

18. Article 3.2 of the Kyoto Protocol states: "Each Party included in Annex I shall, by 2005, have made demonstrable progress in achieving its commitments under this Protocol." Does this constitute a legally-binding obligation?

18.1 Will you please tell us what that provision means in terms of the relationship between U.S. greenhouse gas emissions in 2005 and –
- the baseline projection of U.S. emissions for 2005; and
- U.S. greenhouse gas emissions in 1990?

18.2 Does the Conference of the Parties to the Kyoto Protocol have the authority to determine whether the United States is in compliance with Article 3.2; and, if it does, would our nation be exposed to risk of enforcement provisions that might be established pursuant to Article 17 of the Protocol?

19. In his October speech, the President said there should be reductions below 1990 levels during the five-year period after 2012. Either before or during the Kyoto Conference, did you or any other member of the Executive Branch ever propose to, or discuss with another nation what the percentage reduction should be during the five-year period after 2012? If yes —

- what percentage reduction was proposed or discussed for that second commitment period;
- who expressed the view of the United States on that issue;
- when such further reduction was proposed or discussed;
- who the other nations were; and
- what their reaction was?

19.1 As nearly as I can determine, there are two places in the Kyoto Protocol that define the first "commitment period." Article 3.1 uses the expression "the commitment period 2008 to 2012," and Article 3.7 uses the identical expression. I am concerned that the word "to" could be interpreted by some to mean "up to," rather than "through," so that the language in the Kyoto Protocol would be interpreted to refer to the years 2008, 2009, 2010, and 2011— that is, "up to" 2012. Such interpretation would mean that the first commitment period has a duration of only four years. Was it the intention and understanding of the U.S. delegation at the Kyoto Conference that the phrase "the commitment period 2008 to 2012," as used in the Kyoto Protocol, was meant to include the full year 2012?

20. Even if one assumes that the Kyoto Protocol provides for at most a real 3 percent reduction of U.S. greenhouse gas emissions below their 1990 levels during the period 2008 through 2012, would you agree that, all other things being equal, the level of effort required to enable U.S. compliance with that commitment would have to be greater or more far-reaching than would be the case if the Protocol only required, under its provisions, returning the nation's emissions to their 1990 level, and, also, that the economic consequences would be greater?

20.1 During the decision-making process as to whether the U.S. delegation should agree to the Kyoto Protocol, as it finally was to be proposed to the Kyoto Conference, did you participate in any discussions, or receive any information, concerning whether, or how, or the extent to which, domestic laws and regulations that would be required, and the economic consequences to the nation, would or could differ from those contemplated at the time of the President's October 1997 speech? If yes –

- Was any such information furnished to you in written form; and, if so, who prepared the information, and who furnished it to you?

- Would you please describe for the Committee what was said during any discussions you had on that issue?
- Would you please tell us whether the President or the Vice President, or both, were provided the information that you had?

21. As you know, Senate Resolution 98, the Byrd-Hagel Sense of the Senate Resolution, provided, in part, that "the United States should not be a signatory to any protocol to, or other agreement regarding, the United Nations Framework Convention on Climate Change of 1992, at negotiations in Kyoto in December 1997, or thereafter, which would – (A) mandate new commitments to limit or reduce greenhouse gas emissions for the annex I Parties, unless the protocol or other agreement also mandates new specified scheduled commitments to limit or reduce greenhouse gas emissions for Developing country Parties within the same compliance period . . ." Please tell the Committee what efforts were made by the United States, from and after the time you were told you would head the U.S. delegation at the Kyoto Conference, to obtain language in the Kyoto Protocol that met the <u>specific</u> requirements of Senate Resolution 98, namely, that "*mandates new specified scheduled commitments to limit or reduce greenhouse gas emissions for Developing country Parties within the same compliance period*" as would apply to our nation?

21.1 In the President's October speech, he stated: "The United States will not assume binding obligations unless key developing nations meaningfully participate in this effort." In his December 8 speech to the Kyoto Conference, one of the specific conditions stated by the Vice President to show "increased negotiating flexibility" also was "the meaningful participation of key developing countries." At any time, were you under the impression that such language met the requirements set forth in the Senate Resolution that was adopted by a vote of 95 to zero? If yes –

- What, if anything, made you think that Senate Resolution 98 was only concerned with "key" developing nations, as distinguished from all, or substantially all, of them?
- What, if anything, made you think that the expression "meaningful participation" was exactly the same thing as the requirement of Senate Resolution 98 that referred to "new specified scheduled commitments to limit or reduce greenhouse gas emissions for the Developing country Parties within the same compliance period?"

21.2 Do you agree that the Kyoto Protocol, as written, does not meet the requirements of the Senate, as set forth in Senate Resolution 98?

22. As of, or around, the time you were designated to head the U.S. delegation to the Kyoto Conference, what was your understanding of the intention and meaning of the following words, as used in the President's October speech:

- "key" — Please name all of the developing nations that were "key?"
- "participation" — did it include quantitative commitments, in the Protocol or in a simultaneously adopted, but separate, protocol, to limit the growth of developing nations' greenhouse gas emissions?
- "meaningful" — what did that mean?

22.1 My understanding is that the Annex I nations and the developing nations knew of the terms of Senate Resolution 98 at least by the summer of 1997, when the Ad Hoc Group on the Berlin Mandate met in Bonn. Is that your understanding also?

23. At any time during the Kyoto Conference, did the Administration's intent and understanding of the phrase "meaningful participation of key developing nations" change from the intent and understanding that existed as of the President's October speech? If so, would you please tell us what the changes were?

24. Does the Kyoto Protocol, as written, provide for "meaningful participation of key developing countries" within the meaning of the President's October 1997 speech?

24.1 The following is from a document, dated December 11, 1997, which is entitled "Transcript: Eizenstat Briefing on Results of Climate Talks" and which bears a legend at the top stating "The United States Mission to Italy." The document purports to be a transcript of your news conference on December 11 in Kyoto. The following statement is attributed to you:

> "Second is the question of eventual ratification by the U.S. Senate. The President has indicated that the United States would not take on legally binding targets until there was meaningful participation by developing countries. Clearly, despite the very important step taken through the Brazilian process of creating a Clean Development Mechanism for Credit, that meaningful participation has not yet been taken as a result of the steps that were done here. We hope, over time, they will."

Did that transcript accurately set forth what you said at your news conference?

24.2 If anybody in the Administration, or anybody else, ever tries to tell or suggest to this Committee that the Kyoto Protocol, as written, provides for "meaningful participation by key developing countries," can we count on you to deny that?

25. The State Department's "Fact Sheet: The Kyoto Protocol on Climate Change," dated January 23, 1998 states (beginning at the bottom of page 4): "While the conference rejected a proposal to create a new category of nations that would voluntarily assume binding emissions targets, developing countries may as a prerequisite for engaging in emission trading still do so through amendment to the annex of the protocol that lists countries with targets." Does that statement mean that there is a mechanism for developing nations to opt into the Kyoto Protocol by means of amendment to Annex B?

25.1 Was the United States, before and during the Kyoto Conference, a proponent of what had been called Article 10, which was called Article 9 in a subsequent draft because of renumbering of the Articles, and that Article 10 was intended to set forth the rules by which a non-Annex I Party (that is, a developing nation) could "opt in" to a quantitative commitment to limit or reduce its greenhouse gas emissions?

25.2 Is it true that the developing nations, as a group, refused to go along with this "Article 10," and that, in your press conference immediately after adoption of the

Protocol, you stated that the defeat of the opt-in provisions of Article 10 "was I think our single greatest disappointment?"

25.3 Who came up with the idea that Annex B could be amended so as to add a developing nation and a related emissions-limitation commitment, or when such idea first entered into a draft of the Protocol?

25.4 Do you believe that a majority of the developing nations wanted to include Article 10 in the Kyoto Protocol?

25.5 If a "developing" nation wanted to undertake an emissions-limitation commitment for itself and that it proposed to amend Annex B of the Kyoto Protocol by stating what its commitment was, do you agree that, by reason of Articles 20.7 and 19.3 of the Protocol, such amendment would first have to be approved by at least a three-fourths majority vote of the Parties to the Protocol?

25.6 Do you believe that the Government of the United States, under our Constitution, could not deposit an instrument of acceptance to any amendment of Annex B pursuant to Article 19.4 of the Kyoto Protocol without the advice and consent of the U.S. Senate?

25.7 If a developing nation were added to Annex B, would it automatically become an Annex I Party to the Convention?

25.8 Would a developing nation that is added to Annex B also undertake the commitments of Annex I Parties set forth in Article 2 (concerning policies and measures), Article 5 (concerning a national system for estimation of its emissions and sinks), Article 7 (concerning its national emissions inventory and national communications), and Article 8 (concerning expert review of its reports filed pursuant to Article 7)? If yes –

– Will you please look at those Articles in the Kyoto Protocol and tell me what language in them would make them applicable to a developing nation that became listed in Annex B?

26. In her written testimony before the House Science Committee on February 4, Ms. Kathleen McGinty said: "The President has made it clear that he does not intend to send the Kyoto Protocol to the Senate for ratification until we have achieved meaningful participation by key developing countries." Is that also your understanding of the President's position; and, if it is, who told you that?

27. I am told that various Administration officials have referred to efforts to obtain, on a bilateral or multilateral basis, the agreement of certain developing nations to quantitative limita- tions on the growth of their greenhouse gas emissions. For example, I understand that Ms. McGinty indicated that in her oral testimony before the House Science Committee. Is it the Administration's position that any such bilateral or multilateral agreements would constitute "meaningful participation by developing nations?"

27.1 How could the Administration contend that bilateral or multilateral agreements with developing nations would justify the Senate's ratification of the Kyoto Protocol, in the absence of amendments to the Kyoto Protocol that made it <u>certain</u> the developing nations added to Annex B also were subject to Articles 2, 3, 5, 7, and 8, and that all such commitments, including those undertaken by means of joining Annex B, were subject to such enforcement provisions as might be adopted to elaborate Article 17?

27.2 Is the Administration contemplating proposals to amend the Kyoto Protocol to make certain that, if developing nations were added to Annex B, they also will be subject to Articles 2, 3, 5, 7, and 8?

28. What do you believe the chances are that the Kyoto Protocol will enter into force by the fourth session of the Conference of the Parties in November if the Senate has not ratified it more than 90 days before that session?

29. If the Kyoto Protocol does not enter into force by the November session of the Conference of the Parties, do you believe that the Protocol's provisions concerning amendment of the Protocol are irrelevant and that, in the absence of adoption of the Rules of Procedure of the Conference of the Parties that provide for amendment of the Kyoto Protocol by something other than "consensus," any amendments to that Protocol would require "consensus?"

30. Would you please describe for us all of the ways, including procedure, that the State Department is considering to accommodate the requirements of Senate Resolution 98?

31. Did the President, personally, authorize the U.S. delegation at the Kyoto Conference to vote for adoption of the Kyoto Protocol?

31.1 Will you please explain to the Committee why the President authorized the U.S. delegation to vote for adoption of the Kyoto Protocol at the Kyoto Conference, but no decision has been made as to when it will be signed in behalf of the United States?

32. Will you please identify and describe any oral or written understandings with, or commitments to, other nations -- of any kind other than those specifically set forth in the Protocol -- which were made by the President, by the Vice President, or by any member of the U.S. delegation to the Kyoto Conference, including, but not limited to, any understandings or commitments regarding:

- implementation or the interpretation of the Protocol;
- the substance of future decisions by the Conference of the Parties, which the United States would support, regarding rules or guidelines elaborating the Protocol; or concerning the timing of any Party's signature or ratification of the Protocol.

33. Article 16 bis. Will you please tell us what "modalities" would be, as distinguished from the "principles," "rules," and "guidelines" referred to in that Article?

33.1 Do you believe that, until the Conference of the Parties makes all of the decisions that it is empowered to make under those Articles of the Kyoto Protocol, it will be impossible for either the Administration or the Congress to know the extent to which those Articles -- in reality -- would or could reduce the nation's cost of complying with the emissions- reduction requirement set forth in the Protocol?

CEA ?? State

34. Do you believe that under Article 16 bis, Annex B Parties can begin engaging in emissions trading now?

34.1 Do you have any reason to believe that other Parties to the Convention, specifically including the European Union, agree that, under Article 16 bis, Annex B Parties can begin engaging in emissions trading before the Conference of the Parties defines what it regards as the "relevant principles, modalities, rules and guidelines" for emissions trading, as provided for in the first sentence of Article 16 bis?

34.1 Will you please explain to the Committee, in summary form at this time, all of the issues that will have to be decided by the Conference of the Parties in order to enable emissions trading under Article 16 bis be a viable and effective mechanism for reducing the costs of complying with the emissions-reduction commitment of the United States under the Kyoto Protocol?

35. Regarding the Clean Development Mechanism, particularly Article 12.8, which states: "The Conference of the Parties serving as the meeting of the Parties to this Protocol shall ensure that a share of the proceeds from certified project activities is used to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation." Who are those countries that will be entitled to receive funding to meet the costs of adaptation?

- Are they limited to the groups of countries referred to in Article 4.8 of the Convention?
- Will the share of proceeds to be used to meet the costs of adaptation be allocated among deserving nations in accordance with some currently unknown, decision making process to be established by the Conference of the Parties?
- Please identify all countries that would be excluded from receiving any portion of such funding.

35.1 Does the United States have an understanding with Brazil, or with any other nations, as to a limit, or potential limit, on the amount of money derived from projects under the Clean Development Mechanism that will be diverted to developing nations for adaptation purposes?

36. My understanding is that the fourth session of the Conference of the Parties in November will review the adequacy of Articles 4.2(a) and (b) of the Convention. Given that the Conference of the Parties adopted the Kyoto Protocol and that Articles 4.2(a) and (b) of the Convention have nothing to do with commitments of developing nations, will you assure this Committee that the position of the United States at the November session will be that Articles 4.2(a) and (b) of the Convention <u>are</u> "adequate?"

37. The Kyoto Protocol contains no provisions that describe what the procedures and consequences will be if a Party is not in compliance with its commitments under the Protocol. Article 17 of the Protocol does not itself provide deterrence to non-compliance; yet we know that, for any number of reasons, the United States would comply with its commitments <u>if</u> the Protocol ever received the advice and consent of the Senate. What

specific proposals did the U.S. delegation make during the negotiations that concluded with the Kyoto Protocol that detailed the procedures to determine whether a Party was in non-compliance, and, in case of non-compliance, what specific consequences would ensue in different situations?

37.1 Does the Administration favor use of trade sanctions, such as embargoes, in case of certain types of non-compliance; and, if so, please tell us what the Administration is considering in that regard?

38. Is the Administration contemplating submitting to Congress any other legislative proposals, or is it contemplating proposing any new or amended regulations, any of which are intended to reduce U.S. greenhouse gas emissions, prior to the President's signing the Kyoto Protocol and submitting it to the Senate for its advice and consent? If so, will you please describe the substance of any such legislative or regulatory proposals that are being contem- plated?

39. Has any Department or agency of the Executive Branch, or any interagency body, been given the responsibility to develop potential proposals for legislation or regulations that would be intended to facilitate compliance by the United States with the Kyoto Protocol if the Protocol ever were to become binding on this nation? If so, will you please identify the Departments, agencies, or interagency body; and, if it is an interagency body, who is the head of it?

QUESTIONS FOR THE RECORD
SENATOR JESSE HELMS
IMPLICATIONS OF THE KYOTO PROTOCOL HEARING
February 13, 1998

- Please provide the following information either in electronic or hard-copy form:

  – the official U.S. global greenhouse gas inventory used by negotiators in Kyoto, on a country-by-country specific basis, for the six greenhouse gases listed in Annex A of the Kyoto Protocol;

  – the 1990 baseline and projections at least through 2030 for carbon dioxide, methane, and nitrous oxide; and

  – the 1995 baseline and projections at least through 2030 for hydroflurocarbons, perfluorocarbons, and sulphur hexafluoride.

Mark

- Please provide the assumptions, data and calculation methodology that support the Administration's assertion that the impact of carbon sinks on the U.S. greenhouse gas reduction commitment will reduce the actual reduction to 2 or 3 percent below 1990 levels, rather than 7 percent.

- The Kyoto Protocol establishes a Clean Development Mechanism. Please provide the following information regarding the "Mechanism."

  – What staffing and administrative costs do you anticipate will be required to establish and run this "Mechanism"?

  – What fee do you anticipate the U.N. will charge companies for investing in developing countries through this "Mechanism"?

  – What criteria do you anticipate this "Mechanism" will use to approve or reject investments?

- The Energy Information Administration (EIA) has projected that carbon emissions in the United States will increase from 1990 emissions levels by 34 percent by the year 2010. The Kyoto Protocol would require the United States to <u>reduce</u> these emissions to 7 percent <u>below</u> 1990 levels by 2010.

CEA

  – In addition to your assertions of increased energy efficiency, and international emissions trading, please detail how the Administration intends to reach these enormous commitments <u>without</u> constraining U.S. economic growth?

- Please answer the following questions regarding the creation and implementation of a domestic emissions trading program.

  -- Is the Administration considering the creation and implementation of a domestic emissions trading program?

  -- Does the Administration believe that a domestic emissions trading program could be implemented absent legislation? Would legislation be required for any aspect of a domestic emission trading program under consideration? If you do not believe that legislation is required, under what statutory authority, specifically, would the Administration intend to proceed? What would be the basis for such an interpretation?

  -- Would a domestic emissions trading program be implemented without ratification of the Kyoto Protocol? If so, on what basis? How would such a program relate to the proposed, yet thus far undefined, international emissions trading regime?

  -- Would a domestic emissions trading program be voluntary? If so, what incentives would be offered to induce companies and other entities to participate? Who would run such a program? Under what authority?

  -- By its very nature, an emissions trading program would require an emissions "cap" that would make an emissions unit tradable commodity. Would adherence to the cap be voluntary or mandatory? How would a cap be established? Has any Administration official or entity examined in any way whether a mandatory cap could be placed on carbon emissions? If so, would it be the Administration's's view that legislation would be required to proceed? If not, under what authority would the Administration act?

  -- Could International emissions trading proceed today on the basis of the Kyoto Protocol? If so, how? If not what would the Administration deem necessary for an International emissions trading program to proceed?

- Please answer the following questions regarding amendments to the Kyoto Protocol:

  -- While the Administration is calling the Kyoto Protocol a "work in progress," isn't it true that the Kyoto Protocol is a final document that must be considered by all nations as is? Can the Protocol be amended or changed in any way before it enters into force? If so, how would this be done?

  -- Procedurally, how does the Administration intend to act on any proposals in Buenos Aires? For example, how would an emissions trading regime be considered and adopted? What about enforcement and compliance rules? What about new scheduled emissions reduction commitments by developing countries in the same compliance period as developed countries?

-- If the United States, or any other nation, sought to amend the Kyoto Protocol, wouldn't it need to follow the amendment process to the Protocol? To participate in that process, wouldn't the United States, or any other nation, have to be a party to the Protocol? If this is the case, how does the Administration intend to change anything that is now included in the Protocol or add anything to the Protocol -- which is deemed a work in progress -- until after U.S. ratification? If it is your belief that the United States does not have to be a party to the Protocol to amend the agreement, how could this be done?

-- Would the Administration consider submitting the Kyoto Protocol to the Senate for its advice and consent <u>before</u> formal adoption of amendments to the Protocol? If not, is it the Administration's intention to forgo submitting a global climate treaty to the Senate? If so, how specifically would the Administration go about making the Protocol acceptable to the American people?

-- Is it the intention of the Administration's to seek to negotiate a new Protocol and send both Protocols together to the Senate for advice and consent? If so, what would a new Protocol look like specifically? Have any other countries expressed an interest in such an approach? If so, which countries?

JAF
RL
JA

Fax Transmission

U.S. SENATOR RICHARD LUGAR

TO: MICHELLE JOLIN

OFFICE: CEA

FAX #: 395 6958

PAGE 1 OF 5 **DATE:**

FROM: JEFF BURNAM 228 0360

PLEASE NOTE: I ASSUME CHRIS SALISBURY, OUR HEARING CLERK, HAS FAXED YOU THE INVITE.

PLEASE FAX ME A COPY OF HER RESUME AT YOUR EARLIEST CONVENIENCE.

YOU SHOULD KNOW THAT PRIVATE WITNESSES AFBF & WHARTON ECONOMIC FORECASTERS (WEFA) WILL HAVE THEIR OWN ECONOMIC ANALYSIS & ROMINGER WILL BE ON THE SPOT [redacted] BECAUSE ~~OF~~ USDA HAS BEEN WAITING YOUR ANALYSIS BEFORE THEY CAN DO THEIRS. YOU MAY WANT TO DISCUSS THIS DILEMMA WITH KEITH COLLINS OF USDA AT 720 4164.

Senator Richard G. Lugar
306 Hart Senate Office Building
Washington, D.C. 20510-1401
Phone (202) 224-4814

United States Senate

COMMITTEE ON
AGRICULTURE, NUTRITION, AND FORESTRY
WASHINGTON, DC 20510-6000
202-224-2035

March 14, 1997

The Honorable Al Gore
Vice President
The White House
Washington, D.C.

Dear Mr. Vice President:

Farm state members of Congress have become increasingly concerned with the lack of adequate attention given to agricultural concerns as the Administration works on the United Nations Framework Convention on Climate Change (UNFCC). As you know, this treaty, if ratified, could affect U.S. agricultural production and competitiveness.

American agricultural interests must be adequately represented during the upcoming negotiations. This representation will ensure the continued success of farmers and ranchers and allow them to maintain their productivity, which ultimately benefits consumers. We believe we can address the global greenhouse gas issue and protect the environment while carefully considering the interests of America's farmers, ranchers and consumers. However, before the United States is committed to a final international agreement to limit greenhouse gases, it is essential that we know more about the treaty's impact on our nation's largest employer and the world's most efficient producers of food and fiber.

We will be closely monitoring the negotiations as work continues on the final agreement before its submission to the Senate for ratification. We request an analysis and briefing by the Administration on the following issues as soon as possible:

1) The potential effects of climate change on U.S. agriculture and livestock production.

2) The estimated greenhouse gas emissions resulting from the production of crops and livestock in the U.S.

3) The net contribution of U.S. forests and crops in the sequestration of greenhouse gases.

4) Actions or controls necessary to reduce agricultural greenhouse gas emissions to comply with obligations that may arise under the treaty and an economic analysis of their impact on U.S. farmers and ranchers.

The Honorable Al Gore
March 14, 1997
page 2

5) Whether and to what extent greenhouse gas emission controls would disadvantage agricultural producers in this country compared to producers in other countries with less stringent emission controls or no controls at all.

We understand that serious discussions in preparation for the Kyoto meeting may commence during July and August of this year. We firmly believe this information, as well as the Administration's formal economic analysis, should be submitted to Congress well before then so that the various options for U.S. policy may be understood and their impact on American agriculture and the American economy may be carefully assessed.

We look forward to working with you on this important issue.

Sincerely,

Dick Lugar — Tom Harkin

Thad Cochran — Tom Daschle

Rick Santorum — Jesse Helms

Max Baucus — Tim Johnson

Kent Conrad — Pat Roberts

Larry E. Craig — Chuck Grassley

Mitch McConnell — Bob Kerrey

cc: The Honorable Madeleine Albright
The Honorable Dan Glickman

Jeff Berman

OFFICE OF THE VICE PRESIDENT

WASHINGTON

May 22, 1997

The Honorable Richard G. Lugar
Chairman
Committee on Agriculture, Nutrition, and Forestry
United States Senate
Washington, D.C. 20510-6000

Dear Mr. Chairman:

Thank you for the letter from you and other members of the Senate Committee on Agriculture, Nutrition and Forestry regarding the climate change negotiations and the potential impacts of climate change on U.S. agricultural production and competitiveness.

The issue of global climate change is an important one for agriculture. Over the next 50 years, U.S. food and fiber producers face major challenges in keeping pace with the ever increasing demands of a growing world population. Climate changes, environmental degradation, and increasing competition for land and freshwater supplies will make these challenges even greater. Based on current trends the Intergovernmental Panel on Climate Change projects significant impacts to ecological systems and the economy, including food security, water resources, coastal zones, and human health.

Information on the potential impacts of climate change on agriculture and net greenhouse gas emissions from agriculture and forestry activities is currently available. The White House Climate Change Task Force can arrange a briefing on this at your earliest convenience.

In light of the potential environmental consequences of climate change, this Administration has called on developed countries to agree to realistic and achievable binding targets for greenhouse gas emissions in the current climate negotiations. We believe that each nation needs the flexibility to determine its own cost-effective means of reducing emissions. And finally, everyone -- all nations (including developing countries) and all economic sectors -- must contribute to the solution because climate change is a global problem. We must begin now to lead the way to a sustainable future.

Further commitments under the United Nations Framework Convention on Climate Change must ensure that the U.S. economy remains strong and internationally competitive. To help find the best solution, the Administration is engaged in an assessment of the economic impacts of various emissions targets [coordinated by Dr. Everett Ehrlich: Undersecretary for

Economic Policy at the Department of Commerce.] This assessment includes a variety of aggregate national economic impacts, as well as sectoral and international economic impacts. This analysis is currently underway. As it progresses, it will be subject to a peer review process. Once this process is completed, we fully expect to brief Congress.

As part of this assessment, the Department of Agriculture will analyze the impact of any new agreement on America's food sector and our farmers, ranchers and consumers. Evaluation of the agricultural sector impacts of emissions reductions scenarios is contingent in some cases on national macroeconomic results. As a result, an agricultural sector analysis will follow Dr. Ehrlich's modeling results.

I appreciate your concerns and look forward to working with you on this important environmental issue.

Sincerely,

Al Gore

Al Gore

AG/pgu

DRAFT: February 25, 1998

POST-HEARING QUESTIONS AND ANSWERS

FROM THE

SEPTEMBER 30, 1997 HEARING

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

U.S. SENATE

QUESTIONS FOR THE RECORD FROM CHAIRMAN MURKOWSKI

Question #1: When will the Administration unveil its proposed "targets and timetables" for carbon emissions reductions?

Answer: President Clinton announced a comprehensive international and domestic plan for addressing the risks of global warming in a speech at the National Geographic Society on October 22. As part of this plan, he announced that our treaty negotiators would support a freeze in net greenhouse gas emissions at 1990 levels for the period 2008-2012 and a reduction of emissions below that level in the five-year period thereafter.

Question #2: When will the Administration release to the public the economic analysis that it used in reaching these targets and timetables?

Answer: The Administration relied on an array of economic tools and analyses during the process of selecting its target and timetable. Administration staff drew from the substantial economic literature on climate change, energy, and the environment in assessing options for our negotiating position. For example, the Administration considered analyses conducted by the Intergovernmental Panel on Climate Change, the previously released Interagency Analytical Team draft report, and the Department of Energy's Scenarios of U.S. Carbon Reductions. However, there is not currently a distinct "economic analysis" document.

Question #3a: Will the economic analysis used to arrive at these targets and timetables be peer reviewed?

a. If not, why not?

b. If so, will the peer reviewers comments be made public?

Answer: There is not a distinct "economic analysis" document that could be peer reviewed.

Question #4: The Administration has indicated that it seeks to have an international emissions trading scheme in the new treaty. Roughly how many of the 165 parties to the existing climate treaty have agreed to this principal?

Answer: Yes, the Administration supports emissions trading, which is anticipated to significantly lower the costs of reducing emissions of greenhouse gases. Emissions trading is in the Kyoto Protocol for countries with legally binding targets, currently the "Annex I" developed countries, and all countries have agreed to this approach, as evidenced by the Conference of the Parties' adoption of the Kyoto Protocol in December.

Question #5: The Administration has indicated that it wanted to have "joint implementation" with developing countries as a means to reduce the costs of treaty compliance. Roughly how many of the 129 developing country parties have agreed to this approach?

Answer: The Kyoto Protocol includes the "Clean Development Mechanism," established to credit climate-friendly investments in developing countries, which embraces the concept of joint implementation. All parties to the Kyoto Protocol agreed to this approach by adopting the Protocol in December.

Question #6: The Administration has indicated that it will "advance existing commitments" for developing countries and has even proposed a means under which developing nations would "graduate" into binding commitments.

a. Roughly how many of the 129 developing country parties have agreed to the "graduation" approach?
b. Roughly how many of the 36 industrialized countries have agreed to the "graduation" approach?

Answer: The United States had supported the concept of "graduation" to bring all countries into an agreement. While there were very few developed or developing countries which explicitly supported our approach in Kyoto, nearly all countries recognize that in the long term it will be critical to involve developing countries in order to solve the climate problem. The package adopted in the Kyoto agreement partially addresses this long term need as it allows new countries to take on binding obligations (through an amendment to the Protocol) and then provides these countries with access to emissions trading.

The President has made clear that meaningful participation by developing countries will be a prerequisite for our own ratification. We do not believe the agreement is adequate to meet this test and anticipate additional work on this issue.

Question #7: Some of the key strategies for our negotiations -- including developing country participation, joint implementation, and emissions trading -- are not faring well in the negotiations. If we don't get all of these elements in a Kyoto Protocol, will we walk away from the deal?

Answer: These elements are critical to the U.S. position and are included in the Kyoto Protocol. We recognize that additional work is needed to enhance the meaningful participation of developing countries and to elaborate rules for the market mechanism adopted in Kyoto.

Question #8a: Last week the DOE released a report (the so-called "five labs" study) indicating that we <u>might</u> reduce carbon emissions to 1990 levels with a $50/ton carbon tax <u>and</u> an aggressive energy R&D program. In response to this report, the Secretary of Energy was quoted in a press release as saying that the analysis "...showed that what was good for the environment would be good for the economy."

a. Is it the Administration's position that a $50/ton carbon tax would be good for the economy?

Answer: First, the 5- Lab Study did not examine a tax, rather the scenarios examined a carbon price established through a carbon trading program similar to the sulfur trading program established under Title IV Clean Air Act.

Second, the 5-Lab Study did not attempt to define the Administration's position. Instead, the study merely outlined scenarios demonstrating how technology, combined with emissions trading, could enable us to stabilize carbon reductions by 2010 without disrupting our economy.

Question #8b: Does the DOE study analyze impacts on business and manufacturing?

Answer: The study analyzes the impacts on the energy use and the energy bills of business and manufacturing under three different scenarios.

Question #8c. Is the DOE study an economic study or an attempt to make predictions?

Answer: The study is an analysis of what might be achievable with a vigorous commitment to research, development, and deployment of efficient and low carbon technologies, backed up by well-designed and well-implemented policies.

Question #9a: The economic modelling effort that was abandoned by the Administration earlier this year assumed that the mere announcement of an agreement to reduce carbon dioxide would immediately result in a 25% increase in the rate of improvement in energy efficiency.

a. Was this a valid and realistic assumption?

b. Did the peer reviewers feel it was a realistic assumption?

Answer: Several of the peer reviewers noted that the rate of energy efficiency improvement (the autonomous energy efficiency improvement, or AEEI) may be on the upper range of estimates of this variable. The Interagency Analytical Team employed this higher rate to represent the increase in technology research and development and diffusion that would occur as the economy operates under expectations of higher energy prices in the future. By the nature of several of the models used in the IAT process, the modelers had to incorporate these price expectations into the AEEI parameter. There is disagreement among informed modelers about how realistic is the AEEI used in the IAT.

Question #10a: The Administration economic modelling effort also assumed a <u>decrease</u> in long term interest rates to almost 2%.

a. Was this a valid and realistic assumption?

b. Don't new taxes and higher costs tend to increase inflation and interest rates?

Answer: The IAT report indicates that in the modeling exercises, the revenues from carbon permit auctions are used to reduce the deficit. As we heard many times over the past several years during the balanced budget debate, cutting the Federal deficit will lower interest rates. In the IAT's sensitivity analyses, the IAT found that recycling revenues by cutting corporate and payroll taxes would also lower interest rates. To the extent that revenue from carbon permits significantly reduces the deficit, this assumption is appropriate. All of these forms of revenue recycling stimulate saving and investment, and help raise the growth rate of the economy.

Question #11: The Administration modelling effort did not consider the costs associated with the development, implementation and monitoring of a trading program. Was this a valid and realistic omission?

Answer: The purpose of the IAT was not to assess any specific policy position. Since the Administration had not yet developed a policy position internally, the IAT did not have a specific implementation policy to model. It would not be valid for the IAT to devise a specific, hypothetical trading program and model the costs of implementing it.

Question #12: Did the Administration modelling effort take into account the adverse effects on U.S. competitiveness and the potential shifting of producers in the United States?

Answer: As several of the reviewers noted, the models used in the IAT do not handle international trade in goods and services well, and the IAT did not specifically account for effects on U.S. competitiveness. However, the Administration did rely on several analyses of competitiveness in coming to its decision on a negotiating position.

Question #13a: It was reported earlier this month that the Administration is considering an executive order that would require federal agencies to reduce emissions by 20%. It was also reported that the Department of Defense will oppose any Administration proposal on climate change that threatens military readiness.

a. What studies have been done to assess the impact of such an executive order on the U.S. military?

Answer: The Administration is not considering an executive order requiring federal agencies to reduce emissions by 20%, nor has the Department of Defense conducted any studies to assess the impact of a 20% reduction in greenhouse gas emissions on the U.S. military. In preparation for the Kyoto negotiations, the Department did prepare a draft paper, which was widely reported in the press, suggesting the effect that a 10% reduction in fuel usage from 1996 levels could have on military operations and training. The draft paper, written prior to the Kyoto negotiations, contained four assumptions that have not proved to be valid in light of Kyoto and as the Administration position has evolved: First, it assumed that each agency or organization would be given a fixed emissions budget. The climate change framework will operate instead on market mechanisms. Second, the paper did not consider the role of emissions trading in achieving reductions in greenhouse gases. Indeed, emissions trading is an essential element of the U.S. approach to climate change, a preferable approach to fixed across-the-board emissions limits. Third, it assumed that the military did not have exemptions for military operations and bunker fuels, which the U.S. was able to obtain in Kyoto. Fourth, the draft paper assumed greater reductions than were agreed to in the Kyoto Protocol.

Executive Order 12902, Energy Efficiency and Water Conservation at Federal Facilities, signed by the President on March 8, 1994, calls for a 30% facility energy reduction in the federal government between 1985 and 2005. DoD is already a leader within the Federal Government in reducing energy use and improving energy efficiency. Between 1985 and 1996, for example, we reduced energy consumption in our facilities (per square foot) by over 15 percent. We intend to remain a leader in the Administration's energy efficiency efforts. For example, by 2000, DoD's goal is to achieve a 30% to 50% increase in energy efficiency in new construction compared to existing facilities. This initiative, and others that we are pursuing, will further reduce DoD's energy use, greenhouse gas emissions, and costs.

Question #13b: Have any such analyses been conducted by the Department of Defense to your knowledge?

Answer: See answer to 13a. above.

Question #13c: Is consideration being given to granting waivers to federal agencies that cannot comply with emission reduction mandates without compromising their legal obligations and vital functions?

Answer: The Administration successfully addressed the Department's concerns at the climate change negotiations in Kyoto by obtaining a provision that exempts from emissions limits, any emissions from multilateral operations pursuant to the United Nations Charter. These exempted multilateral operations include not only those expressly authorized by the UN Security Council (such as Desert Storm, Bosnia and Somalia), but also multilateral operations not expressly authorized that are nonetheless pursuant to the UN Charter, such as Grenada. Additionally, the Kyoto Protocol exempts emissions from "bunker" fuels, those expended in international military and commercial maritime or aviation use.

In addition to what was accomplished at Kyoto, DoD is working within the Executive Branch to ensure that we protect national security in the development of the domestic implementation policy. Because climate change is a long-term problem requiring long-term solutions, the President, in his October 1997 speech on climate change, stated his support for performing, "regular reviews to see what works best for the environment, the economy, and our national security." Our goal is to ensure we preserve our ability to conduct military operations with trained and ready forces. DoD is fully engaged in the interagency process to develop the President's domestic implementation plan. This work is part of our continuing effort to help shape policies that protect national security. At this early stage in developing the domestic implementation policy, we are not yet sure what specific provisions may be needed, but we fully anticipate that the Congress will support the Department's efforts to ensure that the military is able to operate with trained and ready forces.

Question #13d: Is the Administration considering granting a waiver to the Department of Defense? To any other departments or agencies?

Answer: See answer to 13c. above.

Question #14a: The DOE "five labs" study concludes that a carbon emission reduction of 390 million metric tons per year is required to stabilize emissions at 1990 levels in 2010 and is based on implementation of the program by the year 2000. The study finds that by increasing energy efficiency through a variety of federal and state programs with industry participation as well as imposing a $50 per metric ton of carbon permit price that "2010 emissions could be cut by about 390 [million metric tons] per year."

a. Does this mean that we can reach 1990 levels by the year 2010 or that in the year 2010, using new technology in combination with regulatory and other measures, we will begin to reduce emissions at a rate high enough to stabilize emissions at 1990 levels at some point in the future?

Answer: The former.

Question #14b: In 2010, how many million metric tons will China or Brazil be emitting per year? More than 390?

Answer: The reference case of the International Energy Outlook for 1997 [DOE/EIA-0484(97), p. 124] projects an estimate of 421 million metric tons of carbon equivalent (MMTCE) for India and 1523 MMTCE for China in 2010.
However, these estimates do not include any policy actions that China or Brazil may take to reduce their greenhouse gas emissions.

Question #15: The DOE study concludes that "in all [three] cases, carbon reductions require the nation to embark on an aggressive set of policies and programs." Assuming everything works as has been hypothesized in the Efficiency Case (Case One), we will not achieve stabilization of carbon emissions at 1990 levels by 2010, correct?

Answer: Correct.

Question #16a. According to the report, the Case 2 and 3 scenarios require "better technology, 'readier' markets, and a price of carbon that results in a significantly increased willingness to manufacture, purchase, and use low-carbon technologies. It represents a vigorous national commitment that goes far beyond current efforts."

a. If we were to agree to implement a program similar to Case Two, including "a vigorous national program of research, development, demonstration, and diffusion, and a trading regime for carbon" at a price of $25/ton, we still will not stabilize emissions at 1990 levels by 2010, correct?

Answer: That depends. The President's policy is to reach an international agreement that permits international trading and joint implementation, which other studies suggest could provide the requisite reductions at a $25 or less per ton trading price for carbon.

Question #16b: According to the DOE study, only if we were to do all of the above and impose a $50/ton carbon charge would we be able to achieve stabilization at 1990 levels by 2010, correct?

Answer: See above. It should be noted that the Administration has not proposed to impose a carbon tax.

Question #16c: To your knowledge, has any nation involved in the international climate negotiations proposed the adoption of an international mandate for developed countries to stabilize emissions at 1990 levels by the year 2010?

Answer: President Clinton's climate change proposal includes binding targets to reach 1990 emissions levels by 2008 to 2012 and reductions below 1990 levels in the 5-year period that follows. Key elements of the strategy include:

- To spur energy efficiency and the development of new technologies, the President proposes a major new package of tax cuts and research and development spending amount to $6.3 billion over five years.

- To provide an incentive for near-term actions to cut emissions, the President is committed to ensuring appropriate rewards for firms that act early.

- Developing countries must participate.

- After a decade of experience has accumulated, the President is committed to a broad-based domestic and international emissions trading system.

The President's climate change policy is undergirded by the following principles: that the policies should be guided by science; rely on market-based policies and common-sense tools; that we should seek win-win solutions, that global participation is essential to addressing the global problem of climate change, and that we must have regular common-sense reviews of the economics and science of climate change.

Now that the summit on climate change in Kyoto has been completed, further analysis will be needed to address the specific targets which resulted from these negotiations.

Question #16d: If not, then this study fails to tell us what would be necessary to achieve the significantly higher emission reductions that would be necessary to comply with any of the climate proposals that are on the table, correct?

Answer: The 5-lab study does not address the means the United States could take to meet targets that other nations want to impose on us. Rather it presents three scenarios whereby the United States could achieve significant carbon reductions through the energy efficiency and renewable technologies. One of the major conclusions of the 5-Lab study is that with a vigorous national commitment to develop and deploy energy-efficient and low-carbon technologies, our nation has the potential to achieve 1990 levels of carbon emissions in 2010 without high cost. In fact, in the high efficiency/low carbon technology scenario of the 5-Lab study, the value of energy saved is roughly equal to or exceeds the costs of deploying "clean" technologies.

Now that the summit on climate change in Kyoto has been completed, further analysis will be needed to address the specific targets which resulted from these negotiations.

Question #16e: If that is the case, then this study also fails to demonstrate that the U.S. can comply with the kind of legally binding emission reduction mandates currently under consideration in the international negotiations through use of existing technology at no cost to the nation, correct?

Answer: As noted in answer 16d, the 5-lab study presents three scenarios which address our nation's potential for achieving 1990 levels of carbon emission in 2010 through the use of energy efficiency and renewable technologies. Now that the summit on climate change in Kyoto has been completed, further analysis will be needed to address the specific targets which resulted from these negotiations. Nevertheless, under any scenario, energy efficiency and renewable technologies need to be utilized to keep the costs of mitigation down.

Question #16f: If \$50/ton charges are required to stabilize emissions at 1990 levels by 2010, how much would the per ton charge need to be to reduce emissions to 10% or 15% below 1990 levels? Would it double? Triple?

Answer: The 5-lab study did not address these questions. Factors which would affect the cost of reducing emissions of 10 to 15 percent below 1990 levels include the success of international trading; the success of joint implementation; and the extent to which energy efficiency and renewable technologies are utilized.

Question #17a: Recent studies conducted by DRI/McGraw-Hill conclude that a $180-190/ton carbon charge would be necessary to stabilize emissions at 1990 levels by 2010. (Pg. 4, of July 1997 study, "The Impacts of Carbon Mitigation Strategies...")

a. Can you explain why there is such disparity between DRI's and DOE's estimates of the per ton charge necessary to reach 1990 levels by 2010?

Answer: The principal reason for the disparity is that the DRI model is a "top-down" model, whereas the 5-lab study employs a "bottom-up" model (see definitions below). Because it is a "top-down" model, DRI's analysis ignores important market imperfections such as when decisions about energy use are divorced from the responsibility for paying for the energy service. In this example, government policy could help remove this barrier to cost-effective energy efficiency -- thus reducing carbon emissions with no cost to the economy. In addition, "top-down" models do a poor job of handling innovation -- and yet innovative technologies need to be at the heart of our climate mitigation strategy. Because the 5-lab study uses a well-developed, carefully constructed "bottom-up" model (see definition below), it can show that a policy that removes market imperfections and utilizes technological innovation can enable our nation to keep the cost of climate change mitigation low. not true

(A bottom-up model usually begins by developing supply and demand at fundamentally detailed ("bottom") levels of end-use consumer choices (e.g., residential space heating in the Northeast U.S.) with an explicit representation of technologies that service that demand (with technology cost, performance, and dates of availability) and an explicit representation of consumer behavior. The solution is constructed by considering all of the building blocks in the market and combining them to determine the solution (e.g., total residential energy demand). The "top-down" approach begins with very general drivers (e.g., GDP and population and aggregate consumer behavior as embodied in elasticities) and uses these to generate more detailed estimates (e.g. consumption of fuels for each sector and region of the country)). false

Question #17b: Has any attempt been made to reconcile these significant differences?

Answer: Because of the significant differences in their analytical approaches (i.e., DRI's model is "top-down" and the 5-lab is a "bottom-up" model), it is difficult to reconcile the results with precision. However, the 5-lab study did adjust for a methodological weakness often found in most "bottom-up" models -- that of not knowing or not representing certain hidden costs such as the cost of fitting a new technology into existing practices. Because of the potential of underestimating costs, the 5-lab study projected that only a fraction of cost-effective technologies would be deployed.

Question #17c: Is it possible that the necessary carbon charge would be higher than $50/ton to simply stabilize emissions at 1990 levels by 2010?

Answer: Conservative estimates suggest we could purchase in excess of 130MMT from international markets at costs less than $50 a ton, and joint implementation could provide additional opportunities to offset domestic emissions at low costs. Moreover, the costs of low and no carbon supply technologies create an effective ceiling on carbon prices, since they would substantially expand market shares at prices above $50 a ton.

where is this from?

Question #18a: One of the primary conclusions stated in the DOE study is that each of the three scenarios under consideration "can produce energy savings that are roughly equal to or exceed costs"..."if feasible ways are found to implement the carbon reductions..." The report states, however, that the study did not analyze specific policies to achieve the reductions described in the cases or the political feasibility of policies.

a. If we don't know what the policies or means for reductions are, and have not determined whether or not they are feasible, how can we rely on this report's conclusions that the reductions can be achieved without a cost to the nation?

Answer: The President has outlined the policies which will enable our Nation to meet a global climate change target of reducing greenhouse emissions to 1990 levels by 2008-2012. Key elements include:

- To spur energy efficiency and the development of new technologies, the President proposes a major new package of tax cuts and research and development spending amount to $6.3 billion over five years.

- To provide an incentive for near-term actions to cut emissions, the President is committed to ensuring appropriate rewards for firms that act early.

- Developing countries must participate.

- After a decade of experience has accumulated, the President is committed to a broad-based domestic and international emissions trading system.

The President's climate change policy is undergirded by the following principles: that the policies should be guided by science; rely on market-based, common-sense tools; that we should seek win-win solutions, that global participation is essential to addressing the global problem of climate change, and that we must have regular common-sense reviews of the economics and science of climate change.

Now that the summit on climate change in Kyoto has been completed, further analysis will be needed to address the specific targets which resulted from these negotiations.

Question #18b: What are some of the means that might be used to achieve the reductions? Would it involve new taxes? Note: Possible programs mentioned include "energy efficiency codes and standards" and "incentives through the tax system directed at investments in energy-efficient technology in industry." (Page 1.13)

Answer: The answer to Q18a provides a summary of the policy means that will be used to achieve the greenhouse gas emission reductions. These key elements will be implemented in a sound and sensible three-stage approach:

- Stage 1 includes priming the pump through programs such as research and development, tax incentives, incentives for early action, federal leadership, and industry consultation.
- Stage 2 builds upon the first stage by including a review and evaluation in preparation for the permit trading system.
- Stage 3 -- which does not occur for a decade -- involves meeting binding targets through a domestic and international emissions trading program.

Question #19a: In numerous places in the report, information is provided on what costs were taken into account or were excluded from consideration in making the cost-benefit assessments. "...we count as benefits only the energy savings to the nation... Costs include the increased technology cost plus an approximate estimate of the costs of program and policy implementation." (Exec. Summary, footnote 2)

a. If no effort has been made to analyze specific policies to achieve the described reductions, how did you determine costs of programs and policy implementation?

Answer: Because proposing the specific policies and programs to achieve carbon reductions was beyond the scope of the 5-lab study, a rough estimate for program costs in general was employed. Since we did not want to underestimate the cost of carbon reductions, it seems a rough estimate is better than none. The range of estimates used in the report to characterize the costs is based on two decades of experience with the costs of programs at the federal, state, and private sector levels.

In the Alternative View case, total annualized costs include program cost of 15 percent of the total technology cost for demand-side technologies and 3 percent of the total technology cost for electricity supply-side technologies. The value of 15 percent is an approximate value of direct program costs for programs such as a utility-sponsored demand-side management. However, we believe that this estimate overstates program costs, because it does not factor in program cost of federal policies such as efficiency standards and carbon permit charges which have very low direct program costs. Because these federal policies would foster greater that half of the penetration of carbon-saving technologies, we believe a more reasonable estimate is provided in the Best Estimate case, which assumes that program costs are 7 percent of total technology costs for demand-side technologies and 1 percent of total technology costs for electricity supply-side technologies (Appendix A-2, pg. 13).

Question #19b: What is an example of a "program" that was included in your analysis? What is the cost of that program? What cost did you assign to the "policy implementation" associated with that program?

Answer: One such program would be encouraging the improvement in the efficiency of power plant generation. (This could be accomplished through restructuring of the electricity sector or other means. If properly designed, electricity restructuring will release the forces of competition to yield greater efficiency in generation and lower carbon emissions). The actual program cost of this program would be less than 1 percent of total technology cost. However, in the Best Estimate case, our convention was to assign a program cost of 7 percent of total technology costs.

In the 5-lab report, section 7.4 shows, for example, that the Southern Company improved the heat rate and availability of its power plants, providing energy savings valued at $1.1 billion per year over a 10 year period with a technology cost of $325 million. In this example, policy implementation costs are taken as 7% of $325 million or $22.7 million.

Question #20a: On page 1.12 of the report the following statement appears: "We have presented the direct and most easily quantified of the costs and benefits, but have not attempted a full benefit-cost analysis. We do not account for indirect effects of policies (e.g., the reallocation of investment dollars to efficiency investments). We do not account for the increased cost of some R&D programs that are needed to achieve the scenario results nor do we count the benefits of reduced carbon and other pollutant emissions. Also, we have not analyzed any possible redistribution of wealth that could arise from a carbon trading system or other policy to increase the price of carbon-based fuel."

a. Aren't these pretty significant holes in DOE's analysis?

Answer: As with any empirical analysis, caveats are needed to acknowledge the limitations of the 5-lab study's quantitative estimations. Although there are limitations to the report, we believe it is the best study available at this time that addresses the costs and benefits of a technology strategy to reduce carbon emissions. Although it was not feasible to address some costs and benefits, we believe the most significant costs were covered. Moreover, some key benefits were not addressed such as the reductions in other pollutants associated with carbon reductions.

or the [illegible]

No study to date has included all of these estimations, because the research involved is so comprehensive. Even though the 5-lab study has its limitations, it is the most comprehensive effort on this subject matter so far. Scores of top notch research analysts from the Department's internationally renowned energy laboratories spent over a year conducting research for this report.

Question #20b: If a "full benefit-cost analysis" has not been conducted, then how can you legitimately conclude that emission reductions can be achieved through energy efficiency without cost?

Answer: Although there are uncertainties with any analysis, policy makers must rely on the best information available. As noted above, even though there are limitations to the 5-lab report, we believe it is the best study available at this time that addresses costs and benefits of a technology strategy to reduce carbon emissions. Although it was not feasible to address some costs and benefits, we believe the most significant costs were covered. Moreover, some key benefits were not addressed such as the reductions in other pollutants associated with carbon reductions.

Question #21a: On page 1.15, the report states that the $50/ton carbon charge is not a "direct cost."

a. Why isn't the carbon charge considered a "direct cost?"

Answer: The carbon charge is not considered a direct cost because the degree to which costs are passed on to consumers and businesses depends on the nature of the trading program and the degree to which technology and trading allows people to achieve savings for less than the marginal permit price.

Question #21b: Isn't it a direct cost to someone? Who has to pay it?

Answer: It depends on the structure of the trading program.

Question #21c: Is the cost of the carbon permit fees included in the analysis in any way?

Answer: Yes. We modeled the $50/ton trading price as if the full cost were born by the economy.

Question #22a: The report characterizes the carbon charge as "a potentially large transfer payment" and makes the following statement: "The magnitude of the transfer payment, as well as the losers and winners from the transfers, depends on the nature of policy and its implementation as a cap and trade system or some alternative. The amount of money that could be in play is very large: $50/ton times 1.3 billion tons per year equals $65 billion per year." (Page 1.15)

a. Is it correct then that the study concludes that emissions reductions could be made at low or no cost yet fails to take into account some $65 billion in "transfer payments?"

Answer: No. The Study does not say that there are no costs. It says that we can achieve reductions at low or no *net* costs. Transfer payments, of course, are not a net cost. In addition, the $65 billion figure depends on the nature of the trading program used. If the trading is similar to that used in sulfur trading, the transfers could be substantially less than the figure quoted.

Question #22b: Who are these "losers" the DOE report refers to?

Answer: In the sentence quoted, the Report uses the term "loser" in a relative sense to refer to entities for whom the costs of carbon mitigation are above average costs.

Question #23a: In describing the results to DOE's analysis, the statement is made that the DOE report "makes a strong case for the value of energy technology research, development, demonstration, and diffusion as a public response ~~to global climate~~ change." As the report points out on page 1.3, DOE's expenditure of $8 million on energy-efficiency research between 1978 and 1996 has resulted ~~in net benefits of~~ $28 billion through 1996 including significant ~~environmental, health,~~ productivity and economic competitiveness benefits. As you know, numerous economists agree that research and development and technology deployment is the most ~~cost-efficient~~ way to address climate concerns. Indeed, it is precisely because of the kinds of cost-~~effective opportunities~~ DOE has identified that these economists have concluded in a number of independent studies that the wisest course of action, is to delay the adoption of any kind of mandates or legally binding targets and timetables for a modest period of years to permit research and development to occur and to generally avoid replacement of equipment and machinery prior to the end of its useful life cycle. The Administration has previously testified that if we "do it dumb," compliance with the proposed international target and timetable mandates could be very costly to the U.S.

a. Doesn't the DOE report provide further support and justification for not rushing into legally binding emission reduction mandates in December in Kyoto but delaying -- even for a few years -- to reap the benefit of the kinds of R&D the DOE report is promoting?

Answer: The report does not look only at the benefits of R&D, but also the more immediate benefits of greater use of existing technologies as well as technologies already in the R&D pipeline.

Question #23b: Can you quantify the "cost" of delaying for 10 or 20 years?

Answer: The report did not consider this question.

Question #23c: Can you demonstrate that the cost of delay exceeds the cost of adopting international mandates three months from now?

Answer: The question is beyond the scope of the report.

Question #24a: According to the DOE report, 95 million of the 135 million tons of carbon reductions necessary in the utility sector to achieve stabilization at 1990 levels by 2010, "comes from retirement of coal power plants and carbon-ordered dispatching of the utility system...and from repowering coal plants with natural gas." (Page 1.6)

a. How much does it cost to "repower" an average coal plant with natural gas?

Answer: Under the assumptions in the report there are a considerable number of coal plants for which it would cost less than $50 per ton of carbon saved. Actual estimates of projected investment for site repowering (coal to gas) from table g-12 ranged from $42.7 million for a 60 MW plant ($711/kW) up to 840 million for a 2800 MW site ($300/kW).

Question #24b: Who would bear these costs?

Answer: The answer depends on the nature of the trading program established and other factors such as the nature of competitive forces in a restructured electricity market.

Question #25a: The DOE report says that the measures used to reduce emissions in the utility sector are "cost-effective with a $50/ton carbon charge." (Page 1.6)

a. When you say that retiring a coal plant is "cost-effective" with a $50/ton carbon charge, aren't you really saying is that if we impose a fee of $50 per ton of carbon, a given number of coal plants will be forced to shut down?

Answer: There are a variety of options for a coal plant to use to reduce carbon emissions. Repowering and co-firing would both allow utilities now using coal to cut carbon and continue to operate. There are a variety of options for cutting carbon emissions under the President's policies. If international trading and Joint Implementation are successful, up to 130 tons of carbon could be purchased or offset internationally. For this reason, there is no "given number of coal plants" that can be identified as shutting down.

Question #25b: How many existing coal plants would be "retired"?

Answer: See above.

Question #25c: Where are these plants located?

Answer: See above.

Question #25d: Has any consideration been given in DOE's analysis to the costs associated with the shutdowns, layoffs, displacements that would occur as a result of "retiring" existing plants?

Answer: Although the issue of employment benefits or costs is very important, their estimation is one of the most difficult and contentious issues in cost-benefit analysis. This estimation was beyond the scope of the 5-lab study.

When studying employment costs resulting from "retiring" existing plants, care must be taken not to ignore the employment benefits associated with the increased production and implementation of energy efficiency and renewable energy technologies. Simply tallying the employment costs of "retiring" existing plants is clearly incomplete. Because it doesn't take into account job gains resulting from the use of other energy production or efficiency technology in association with the existing plants or as alternatives.

Question #25e: When you say that energy savings or reductions can be achieved at little or no cost "to the nation," does that include the citizens, communities and businesses in this country?

Answer: Yes.

Question #26a: The DOE report also states that the remaining reductions in the utility sector would be achieved from renewables such as wind, biofuels, expansion of hydropower, and extension of nuclear power plant life. (Page 1.6)

a. Explain what is meant by "nuclear power plant life extensions."

Answer: Nuclear power plant life extension refers to investments made to keep nuclear plants on-line for longer than their currently expected service life, as defined by the Energy Information Agency projections.

Question #26b: Does this study contemplate new nuclear power plants or a greater dependence on nuclear power?

Answer: No.

Question #27a: Turning to the transportation and industry sectors, the DOE report contemplates a reduction of 50 million tons of carbon per year through (a) advanced combustion turbine cogenerators in industry; (b) biomass and black liquor gasification and low-carbon industrial processes; and (c) cellulosic ethanol/gasoline blends for automobiles. (Page 1.6)

a. What kinds of industrial processes utilize advanced combustion turbine cogenerators?

Answer: Most plants having a requirement for electricity and/or steam could utilize cogeneration systems. The primary users for these systems include the chemicals, petroleum refining, forest products and paper industry, metals industry (steel, aluminum), and agriculture. The industrial sector consumes approximately 1014 billion kWhr of electricity annually (this includes purchased and self-generated electricity) -- about one-third percent of total U.S. electricity sales.

Question #27b: What percentage of industrial plants currently use these turbine cogenerators?

Answer: Approximately 14% of the total energy consumed is cogenerated. This is approximately 113,912 million kWhr. With the restructuring of the electric industry and distributed generation, this number is predicted to increase. Cogeneration is also the preferred form of self -generation for industrial sites that require steam and/or electricity. For example in the chemical industry, there are 41,000 million kWhr of self-generation, of which 38,000 million kWhr was cogenerated (The total electricity consumption is approximately 129 billion kWhr).

Question #27c: How much would it cost a given plan to re-outfit with a turbine cogenerator?

Answer: Siting a cogeneration system varies depending on the size requirement (power and steam). The cost is approximately $450/kW for the cogenerating system. If a plant requires 5 MW of electricity and approximately 50 lbs/hr of steam or hot water, the cost would be approximately $2.250 million.

Question #27d: Are cellulosic ethanol/gasoline blends currently available to American consumers? What automobiles can use this fuel? What kind of conversion would be necessary for other cars to use this fuel? What would it cost?

Answer: Ethanol blends are available to consumers, although at this point, cellulosic ethanol is not commercially marketed. Any vehicle designated as a flexible fuel vehicle (FFV) can use ethanol. The report does not consider conversions of vehicles to FFV.

Question #28a: The Acid Rain trading program exists solely within the United States and operates primarily through the annual allocation of sulphur dioxide permits to known groups of electric power generators, correct?

a. Why are the permits generally allocated only to electric power generators?

Answer: Yes, the Acid Rain trading program allocates permits annually to electric power generators. The goal of Title IV of the 1990 Clean Air Act Amendments is to reduce emissions of sulfur dioxide by 10 million tons from 1980 levels. Electric utilities emitted approximately 70% of the United State's sulfur dioxide emissions in 1990, and Congress elected to focus a regulatory program on this sector.

Question #28b: What mechanism is used to determine whether these entities' emissions are within their permit allowances?

Answer: Under the Acid Rain Program, each unit must measure continuously and record its emissions of S02 and several other pollutants. In most cases, a continuous emission monitoring (CEM) system must be used. By January 30 of the year following each compliance year, utilities must hold a quantity of SO2 allowances in every electric utility unit account that match or exceed the tons of SO2 emitted. Utilities have a 30-day grace period to transfer or purchase allowances for units where emissions exceed allowances held. At the end of this grace period, EPA checks each utility unit account to determine compliance.

Question #28c: What happens if a company's emissions exceed its permits?

Answer: If the number of allowances required to be deducted exceeds the number of allowances held in the unit's account, that is, the unit is out of compliance, then the owners or operators of delinquent units must pay a penalty of $2,525.00 per excess ton of emissions in 1997, or $2,581.00 in 1998. (The 1990 penalty of $2000 is adjusted each year for inflation). In addition, violating utilities must offset the excess SO2 emissions with allowances in an amount equivalent to the excess.

In 1995 and 1996, the first two years of the program, there was 100% compliance by electric utilities. This is not a surprising result because the market price for SO2 allowances has been much less than the excess emissions penalty. (The price is currently about $100 for an allowance.)

Question #28d: What legal process exists to allow the regulated community to appeal decisions with which it disagrees in connection with the trading and emission program?

Answer: In general, all final decisions made by the Administrator can be appealed under 40 CFR part 78.

Question #28e: What costs are associated with the operation and administration of the trading program? How are these costs minimized to maintain market incentives?

Answer: The Acid Rain Program costs roughly $15 million per year, which covers the cost of Federal, Regional, and State salaries of approximately 100 full time equivalents (FTE) as well as contractor support. This amount covers both the SO2 program and a more conventional regulatory program to control emissions of nitrogen oxides (NOx). About 75% of the resources for the Acid Rain Program are associated with the measurement, processing, and tracking of emissions data, which includes not just SO2 data but also NOx, CO2, and opacity data. Only a small amount of resources go toward processing transfers of allowances (i.e., entering them into an electronic database) and "truing up" emissions and allowances at the end of a compliance period. In the SO2 program, which involves about 2,000 utility sources and 2,800 allowance accounts, 3-5 FTE are devoted to these activities.

Because an allowance-based emissions trading system does not require case by case review of trades, the administrative costs associated with directly running the trading system are low. Similarly, because allowances are a standardized commodity that can be traded without review, the transaction costs for industry associated with trading are low. This helps maintain the market incentives associated with emissions trading.

Question #29a: I understand that the establishment of a trading regime similar to the sulphur dioxide program for carbon emissions has been proposed.

a. Would the carbon trading program operate domestically or internationally?

Answer: At a conference held December 1 - 11 1997, in Kyoto, Japan, the Parties to the UN Framework Convention on Climate Change agreed to an historic Protocol to achieve greenhouse gas emissions reductions cost-effectively. The United States prevailed in securing acceptance of emissions trading among nations with emissions targets. This free market approach, pioneered in the U.S., will allow countries to seek out the cheapest emissions reductions, substantially lowering costs for the U.S. and others. Additional credit trading could occur among developed and developing countries via the Clean Development Mechanism. Rules and guidelines for emissions trading – in particular for verification, reporting, and accountability - are to be discussed at the next meeting of the Parties at Buenos Aires in November 1998.

In addition, President Clinton proposed to develop a domestic emissions trading program that will draw ~~on our~~ successful experience with acid rain permit trading. Around the year 2004, the details of the trading system would be refined and perhaps tested. Then, beginning in 2008, the Administration proposed to implement both the international and domestic emissions trading programs to achieve the Kyoto emissions targets for the five-year period spanning 2008 to 2012.

Question #29b: What role is envisioned for the Chicago Board of Trade?

Answer: Although the Chicago Board of Trade currently runs the U.S. auction for sulfur dioxide allowances for E.P.A., no specific role is envisioned at this early stage for it or any other entity in a greenhouse gas trading market.

Question #29c: Could a U.S. company such as an automobile manufacturer in Detroit purchase carbon permits through the Board of Trade from another developed country such as Germany? From a developing country such as Guatemala or Botswana?

Answer: Again, no specific role is envisioned for the Board of Trade at this time. However, the Kyoto Protocol would permit U.S. companies (or any other domestic entity) to purchase carbon allowances from other countries that accept binding greenhouse gas emission limits. In addition, under the Clean Development Mechanism (CDM), U.S. entities could also purchase carbon allowances from countries that have not accepted binding limits but where specific projects have resulted in quantifiable emissions reductions.

Question #29d: If carbon permits may be purchased from a developing country, how would it be determined how many permits each developing country would be allocated?

Answer: Under the CDM, carbon allowances would be generated from specific projects in those countries that have not accepted binding emissions limits. Thus, the carbon allowances would not be allocated to those countries but would be generated from specific projects.

Question #29e: Would any UN agencies or bodies be involved in the implementation of the emission trading program? How would they be funded?

Answer: Under the Protocol, countries would annually report national inventories, as well as information related to the attainment of emissions budgets (carbon allowances bought, sold, or banked). The Secretariat of the Framework Convention on Climate Change would be responsible for recording, tracking and publishing this information. The reporting of emissions against emissions budgets to the Secretariat is necessary as a basic accounting system for country compliance, regardless of the trading program.

Because the Secretariat already performs these functions for national inventory data, tracking additional information would not require significant new resources. The activities would continue to be funded through the Secretariat's operating budget.

Question #29f: What kind of transaction costs would you expect to be associated with an international emissions trading program?

Answer: Because the specific form of the trading program is still subject to negotiation, no formal cost estimates have been developed of transaction costs. In order to keep transaction costs low, the U.S. has called for standardized reporting of emissions, using electronic databases, and centralized record keeping and accounting of national emissions budgets. These tasks are, in large part, also necessary to track compliance with national emission limits, not just for trading.

Question #29g: Would state or local governments be required to purchase carbon units for emissions? Federal agencies?

Answer: The Protocol only addresses international trading. The Administration has not yet developed a position on how a domestic trading program could be implemented.

Question #29h: What kind of allocation process would be set up to establish the caps that would be required to provide incentives to trade?

Answer: As stated above, the Administration has not yet developed a position on how a domestic trading program could be implemented.

Question #29i: In the Acid Rain program, compliance with permits is ensured through sophisticated continuous emissions monitoring equipment. How would compliance with permit limitations be ensured under this program?

Answer: International compliance would be ensured in the Protocol, in part, by using internationally-agreed measurement and reporting systems for greenhouse gases. These measurement methods vary by gas and by source. A variety of methods are feasible in addition to continuous emissions monitoring, such as deriving emissions from fuel use. In addition, before participating in emissions trading, a country would be required to have an adequate monitoring and reporting system for tracking its emissions of greenhouse gases.

not in Protocol

Question #29j: Would developing countries have to reduce their own emissions by one ton of carbon for each carbon unit they sell? How would compliance be ensured for developing countries? Will developed countries only be able to sell a carbon unit if they can demonstrate they have already achieved the relevant reductions?

Answer: Yes, under the CDM, countries that do not accept binding emissions limits would have to ensure that specific projects achieved emissions reductions before the emissions allowances could be used for credit against binding limits in another country. This would ensure that worldwide emissions to the atmosphere would be reduced by that amount. Compliance would be ensured through adherence to specific criteria for such projects, to be elaborated at the first meeting of the parties to the Protocol. Further rules and guidelines may address when developed countries will be able to sell credits under the international emissions trading system, and will be elaborated at the next Conference of the Parties in November 1998.

Question #29k: What penalties would apply if a developing country failed to reduce its emissions at an amount commensurate with the carbon units it had sold?

Answer: Although there are no particular penalties for this situation, the Protocol specifies that the emissions reductions be certified following several criteria. It also provides that the procedures for ensuring accountability, independent auditing, and verification of CDM project reductions be elaborated at the first meeting of the Parties to the Protocol, as well as procedures for addressing non-compliance with any provisions of the Protocol.

Question #29l: Who will monitor countries or companies for enforcement purposes?

Answer: Parties would self-report emission inventories, emissions budget balances and steps taken to implement their commitments. These reports would be published and technically reviewed by the in-depth review teams organized by the FCCC Secretariat. Additionally, the Conference of Parties to the agreement would review implementation of commitments by Parties. No monitoring of companies would occur at the international level.

Question #30: What is the Administration's calculation or estimate of the greenhouse gas emission reduction equivalent of the Clean Coal Technology Program, which was a 7 billion dollar program, at least half of which came from private industry?

Answer: The Office of Fossil Energy has recently conducted an analysis which concludes that, as a result of using more highly efficient coal and gas technologies, such as those being developed under the CCT program, U.S. carbon emissions would be reduced by about 45 million metric tons of carbon annually by 2025, and by about 140 million metric tons of carbon annually by 2035. The deployment of clean coal technologies globally would result in a several times larger reduction.

This analysis assumes that all new gas and coal fired power plants built after 2015, whether to meet load growth or to replace units which are retired, were assumed to be high efficiency advanced technology.

Question #31: What exactly is the Administration itself doing to develop new technologies to reduce greenhouse gas emissions? I'm not talking about what the government is doing with industry in a partnership, or what industry is doing alone -- what is the federal government doing itself?

Answer: The Federal government is working to stimulate demand for and test and verify performance of new technologies where they have not yet penetrated the marketplace to a level consistent with the value they offer. One example of such a program is the New Technology Demonstration Program run by the Federal Energy Management Program (FEMP) within the Department of Energy. This program takes emerging products and finds Federal host facilities for the products. The manufacturers install the products at their own expense and the performance of the products is monitored and widely reported by FEMP to other Federal energy managers and the private sector. This impartial reporting on the performance of the new products gives other Federal and non-Federal users the necessary information needed to make wise purchasing decisions for other installations.

A second approach is to put in place a variety of Energy Savings Performance Contracts for specific technologies. In this case about 15 technology categories such as wind power, solar thermal systems, gas cooling equipment and others are projected to be placed under contract in the next 2 years. These contracts will provide a ready market for companies to deliver energy savings to the Federal government by means of these emerging technologies. The contracts will provide a means for the companies to install newly developed and developing technologies to save energy at Federal facilities. The contractors will install the technologies at their own expense and be paid back from the energy savings they deliver. Without these innovative contracts, these new technologies would be less likely to penetrate the Federal market due to a lack of appropriations for energy saving projects.

Finally, several Federal laboratories, principally within the Department of Energy, are working on advancing a full array of energy saving and renewable energy technologies using solar, wind, geothermal and biomass technologies. This work often involves the unique expertise or facilities that are available within the government laboratory system and encompasses all energy technologies including more efficient use of fossil energy resources. For example, researchers at the Oak Ridge National Laboratory independently developed a more energy efficient way to handle refrigerant flow within an air-conditioning system. They have tested the system and initiated a patent for the technology and are working to make it available to industry through a technology transfer process.

Responses to Murkowski Questions

2. When will the Administration release to the public the economic analysis that it used in reaching these targets and timetables?

The Administration relied on an array of economic tools and analyses during the process of selecting its target and timetable. Administration staff drew from the substantial economic literature on climate change, energy, and the environment in assessing options for our negotiating position. For example, the Administration considered analyses conducted by the Intergovernmental Panel on Climate Change, the previously released Interagency Analytical Team draft report, and the Department of Energy's Scenarios of U.S. Carbon Reductions. However, there is not a distinct "economic analysis" document.

3. Will the economic analysis used to arrive at these targets and timetables be peer reviewed?

a. If not, why not?

b. If so, will the peer reviewers comments be made public?

There is not a distinct "economic analysis" document that could be peer reviewed.

9. The economic modeling effort that was abandoned by the Administration earlier this year assumed that the mere announcement of an agreement to reduce carbon dioxide would immediately result in a 25% increase in the rate of improvement in energy efficiency.

a. Was this a valid and realistic assumption?

b. Did the peer reviewers feel it was a realistic assumption?

Several of the peer reviewers noted that the rate of energy efficiency improvement (the autonomous energy efficiency improvement, or AEEI) may be on the upper range of estimates of this variable. The Interagency Analytical Team employed this higher rate to represent the increase in technology research and development and diffusion that would occur as the economy operates under expectations of higher energy prices in the future. By the nature of several of the models used in the IAT process, the modelers had to incorporate these price expectations into the AEEI parameter. There is disagreement among informed modelers about how realistic is the AEEI used in the IAT.

10. The Administration economic modeling effort also assumed a decrease in long term interest rates to almost 2%.

a. Was this a valid and realistic assumption?

b. Don't new taxes and higher costs tend to increase inflation and interest rates?

The IAT report indicates that in the modeling exercises, the revenues from carbon permit auctions are used to reduce the deficit. As we heard many times over the past several years during the balanced budget debate, cutting the Federal deficit will lower interest rates. In the IAT's sensitivity analyses, the IAT found that recycling revenues by cutting corporate and payroll taxes would also lower interest rates. To the extent that revenue from carbon permits significantly reduce the deficit, this assumption is appropriate. All of these forms of revenue recycling stimulate saving and investment, and help raise the growth rate of the economy.

11. The Administration modeling effort did not consider the costs associated with the development, implementation, and monitoring of a trading program.

a. Was this a valid and realistic omission?

The purpose of the IAT was not to assess any specific policy position. Since the Administration had not yet developed a policy position internally, the IAT did not have a specific implementation policy to model. It would not be valid for the IAT to devise a specific, hypothetical trading program and model the costs of implementing it.

12. Did the Administration modeling effort take into account the adverse effects on U.S. competitiveness and the potential shifting of producers in the United States?

As several of the reviewers noted, the models used in the IAT do not handle international trade well and the IAT did not specifically account for effects on U.S. competitiveness. However, the Administration did rely on several analyses of competitiveness in coming to its decision on a negotiating position.

Schaefer Questions

12. The Administration frequently cites the 2000 economists who say they support controlling greenhouse gases. Their statement supports as the mechanism either carbon taxes or emission permits. In the past, the Administration has said it opposes the use of taxes. Is that still the Administration's position?

The first stage of the President's climate change plan calls for tax cuts over the next 5 years to stimulate the development and adoption of energy efficient and carbon-lean technologies. These targeted tax cuts -- coupled with focussed R&D spending, credit for early action by industry, Federal leadership through improved procurement and energy use, and industry-by-industry consultations to encourage carbon reductions -- provide a solid foundation for the President's plan to reduce our nation's carbon emissions to 1990 levels by 2008-2012. In the next stage, around 2004, we will review our progress and evaluate our next steps as we move toward a market-based permit trading system for carbon dioxide. After the nation has reviewed its decade's worth of experience, a carbon dioxide permit system, consistent with the recommendation of the Economists' Statement on Climate Change, will be implemented.

United States Department of State

Bureau of Oceans and International Environmental and Scientific Affairs

Washington, D.C. 20520

DATE: 11/17/97

NUMBER OF PAGES TO FOLLOW: ______ fax 647-0191

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MESSAGE:

Per our conversation, here is a list of issues raised by House Commerce Committee staff on the Schaefer questions.
If you have please call - we need to complete this request soonest.

United States Department of State

Bureau of Oceans and International Environmental and Scientific Affairs

Washington, D.C. 20520

November 14, 1997

TO: OES - Melinda L. Kimble

FROM: OES/EGC - Daniel A. Reifsnyder DAR

SUBJECT: Meeting with Staff of House Subcommittee on Energy and Commerce

On Friday, November 7, I met with Cathy Van Way and Troy Timmons, House Subcommittee on Energy and Commerce, to discuss Chairman Schaefer's dissatisfaction with certain Administration responses to questions posed about negotiations under the U.N. Framework Convention on Climate Change. We provided responses to those questions on September 30, 1997. This memorandum summarizes specific concerns of the Subcommittee. Julie Norton, Bureau of Legislative Affairs, and Barbara DeRosa-Joynt from this office also participated in the meeting. Later the same morning, I saw Joe Aldy from the Council of Economic Advisers at the White House and agreed to fax him a copy of the Subcommittee's concerns so that CEA could determine whether further responses could be developed.

In general, Van Way said that responses to questions concerning the formation, costs and function of the Interagency Analytical Team, while important, are of less immediate urgency to the Subcommittee than responses to questions concerning the economic costs that might be incurred under a new protocol to the climate convention (i.e. Questions 7 onward are more urgent).

Question 1

What were the specific responsibilities of individual members of the Interagency Analytical Team. Did the Interagency Analysis Team employ any outside contractors? If so, please identify them and indicate what work they undertook.

Question 2

Was there any documentation regarding the formation of the Interagency Analytical Team? If so, please provide copies.

Question 3

Please provide specifics on the costs of the Interagency Analytical Team – the Administration's response was vague and unresponsive in this regard.

Question 4

Is the Interagency Analytical Team still in existence? Yes or no.

Question 5

No concern registered by Van Way.

Question 6

Did Under Secretary Erhlich issue any oral instructions to members of the Interagency Analytical Team that differed from the written instructions?

Question 7

The Administration's response indicates that it is using a range of tools. What are these – please provide some specifics.

Question 8

What, in particular, did the Administration find to be unreliable about the effort undertaken by the Interagency Analytical Team?

Question 9

What cost per ton does the Administration consider to be acceptable? Or what percentage off GDP or how many jobs is the Administration willing to lose? Van Way indicated that she spoke with Michelle Joelyn (phonetic) about this question in particular and had Joelyn's commitment to provide a further response.

Question 10

No concern registered.

Question 11

What does the Administration plan to do domestically prior to 2008? Do we continue the voluntary route until 2008?

Question 12

CEA agreed to provide a further response to this question, according to Van Way.

Question 13

Where does the money go if permits are recycled? Please explain what the Administration analyzed, even if it is abstract.

Question 14

No concern registered.

Question 15

What particular employment impacts were considered under the scenarios? How many jobs were lost or gained?

Question 16

No concern registered.

Question 17

No concern registered.

Question 18

No concern registered, although we agreed to review the response carefully.

Question 19

No yet answered.

Question 20

Not yet answered.

Question 21

No concern registered.

Question 22

Not yet answered.

Question 23

Not yet answered.

Question 24

No concern registered.

Question 25

No concern registered.

Question 26

I indicated that we have met with members of the Global Climate Coalition on numerous occasions since the GCC's February letter to us. I suggested that the questions raised in the GCC's February letter may well have been overtaken by events, and I asked whether it was really necessary to go back to February and respond to that letter. Van Way agreed to check on this. I suggested that, as an alternative, perhaps we could respond to a few key questions of concern to the GCC, if the Subcommittee considers a written response to be necessary.

Questions 27, 28, 29 and 31

Van Way said that all of these questions involve the E.U. Bubble. She asked whether there would be any opportunity for the United States to acquire tons from Eastern European countries through emissions trading if these countries become Member States of the European Union? She asked whether such countries would come in automatically under the E.U. Bubble, if there is a Bubble? She also asked whether this would make it cheaper for the E.U. to meet its emissions limitation commitments than for the United States. I agreed to review our responses to these questions and see what further information we can provide. I cautioned, however, that the E.U. Bubble is a sensitive issue now in the negotiations and that it may be preferable not to give detailed responses at this time.

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From: The Honorable Dan Schaefer

Date: October 8, 1997

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Notes:

U.S. House of Representatives
Committee on Commerce
Room 2125, Rayburn House Office Building
Washington, DC 20515–6115

October 8, 1997

The Honorable Janet Yellen
Chair
Council of Economic Advisors
Old Executive Office Building
Washington, D.C. 20502

The Honorable Timothy E. Wirth
Under Secretary for Global Affairs
U.S. Department of State
2201 C Street, N.W.
Washington, D.C. 20520

Dear Ms. Yellen and Under Secretary Wirth:

Last week I received your initial responses to a series of questions I sent to the Department on August 22, 1997. On behalf of the Energy and Power Subcommittee, I have attached the questions, and once again, commend them to your attention. Not only is the joint submission I have received from your offices late and incomplete, but most of the responses are wholly inadequate.

In the past weeks, you were apprised by my staff as to the time-sensitive nature of our correspondence. An extension was requested by your staff, which I granted on the promise that the extension would allow for a more complete and responsive submission. I hardly need to emphasize the urgency with which the Congress views preparation for the final negotiating session on the future climate change treaty. As the last negotiating meeting grows nearer, we are justifiably anxious to have whatever benefit can be derived from the Administration's thinking on this issue. Any agreement that the Administration signs could bind the U.S. well into the next century and have a profound impact on U.S. industry, jobs, and lifestyle. Thus, I believe you will understand my disappointment at the responses that were received yesterday.

To highlight all of the specific examples from your letter that I find incomplete, would be counterproductive. I shall only point out two instances where the Administration appears to obfuscate and obscure rather than use the opportunity to clarify its position on climate change which was my intention and the goal of the Subcommittee with respect to these follow-up questions.

For example, in response to Question 12, addressing whether the Administration still opposed the use of taxes to address climate change. You can understand my frustration, and that of the Subcommittee Members, upon reading a response that essentially said the Administration was still developing its policy. This is disturbing not only because it may indicate a change in Administration position on this issue, but also because we now don't know what the Administration position is on this critical issue less than eight weeks away from the start of the final negotiating meeting.

Similarly, when asked the cost of the Interagency Analytical Team the response was "no effort was made to keep track of costs..." and the Administration "did have some contract costs for modeling." The question asked "what were the costs?" not, "did the Administration keep track of the costs?"

I am hopeful that you will attend to this matter as a priority and that more complete responses will be forthcoming at your earliest convenience. To that end, I ask that your staff meet as soon as possible with Commerce Committee majority and minority staff to specify the questions that need more complete responses. I would like all of your amended responses prior to the start of the next negotiating session in Bonn, Germany which is scheduled for October 20, 1997.

Thank you for your prompt attention to this matter.

Sincerely,

Dan Schaefer
Chairman
Subcommittee on Energy and Power

Attachment

cc: The Honorable Tom Bliley, Chairman
The Honorable John Dingell, Ranking Member
The Honorable Ralph Hall, Ranking Member
Subcommittee on Energy and Power

SUBCOMMITTEE ON ENERGY AND POWER
HEARING ON GLOBAL CLIMATE CHANGE
FOLLOW-UP QUESTIONS

Interagency Analytical Team Report

1. Please identify each member of the Interagency Analytical Team (IAT) from the date of its inception to the present time, any other participants inside or outside the Administration, and specify their responsibilities.

2. When was the IAT formed and what were the IAT's instructions? Please provide any documentation regarding the formation of the IAT and its mission, responsibilities, membership or assignments.

3. Please indicate the total costs of the IAT's efforts and the share paid annually by each Department or Agency that was involved and please identify the source of the funds within each Department or Agency.

4. Is the IAT still in existence? If so, what are its current responsibilities?

5. Please provide a copy of all drafts of the IAT report in addition to the May 16 and 30, 1997 drafts, both earlier and later.

6. Please explain how the peer reviewers were selected? What instructions were those peer reviewers given? Please provide copies of any correspondence or instructions that were sent to the peer reviewers.

7. If the IAT effort is in fact a "failed" project as indicated in Administration testimony at the Subcommittee hearing how will the Administration determine the appropriate level of future international climate change commitments for Kyoto and later?

8. As late as last May when Dr. Ehrlich and others in the Administration held briefings on the then draft analysis and assessment there was no hint that the Administration considered this effort a failure and the models to be unreliable. What occurred since May that caused the Administration to apparently reach a different conclusion from that of Dr. Ehrlich?

9. The IAT draft analysis referred to three scenarios which resulted in costs of future climate commitments of approximately $200, $100 or $50 per ton carbon tax equivalent. Has the Administration concluded that a $200 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness? Has the Administration concluded that a $100 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness? Has the Administration concluded that a $50 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness. Please provide the basis for any of the above conclusions. If the Administration does not support any of the above costs, what analysis or other information does the Administration intend to rely on to support a different amount?

10. Is the paper prepared by the IAT both an analysis and assessment? How does it relate to the "analysis and assessment" referred to in Paragraph 4 of the Berlin Mandate? Has the Ad Hoc Group on the Berlin Mandate provided an analysis and assessment as required by the Berlin Mandate?

11. The IAT draft states that the central policy modeled for the analysis "is aimed at reducing carbon and other greenhouse gas emissions by stabilizing them at 1990 levels" and that policy would be "announced in 2000 and its restrictions are phased in over a ten year period, so that the policy would take full effect in 2010." Reports in the media after the Denver Summit that President Clinton attended also referenced this date of 2010. In light of EIA's projection of emissions 22% above 1990 levels by 2010, is the Administration considering a target and timetable that calls for stabilization at 1990 levels by 2010?

12. The Administration frequently cites the 2000 economists who say they support controlling greenhouse gases. Their statement supports as the mechanism either carbon taxes or emission permits. In the past, the Administration has said it opposes the use of taxes. Is that still the Administration's position?

13. The IAT draft explains that these emission reductions to achieve stabilization would be through "issuing tradable permits at the earliest point of energy production or when imported into the U.S." and that the permits "are initially auctioned in a way that is revenue neutral: i.e., all revenues generated would be recycled through the economy." Would these revenues be deposited in the treasury as miscellaneous receipts under the Economy Acts? Would they then have to be recycled through changes in the tax laws or by appropriation? How would they be recycled?

14. Does the Administration believe that permit auctions are the equivalent of a new tax? If not, please explain.

15. The IAT draft states that "among fuels, demand for coal bears the brunt of greenhouse gas stabilization." What is the impact on the U.S. economy as a whole and on the relevant coal regions of this policy towards coal? What will be the job impact? Is the Administration adopting an anti-coal policy? How is this policy consistent with President's Clinton 1995 reply to Mr. Dingell that the U.S. will not agree to any protocol that harms our economy and jobs or our competitiveness?

<u>Kyoto Agreement</u>

16. How long after December 1997 does the Administration think it will take to obtain Senate advice and consent of any Kyoto agreement, to ratify that agreement, and to enact implementing legislation?

17. Which Agency or Department would be responsible for implementing the provisions of any agreement reached in Kyoto, including provision relating to joint implementation, emissions trading, and advancing Article 4.1?

18. What consideration has been given or plans made regarding passage of legislation necessary to implement any agreement reached in Kyoto?

U.S. Draft Protocol

19. Article 17.4 of the Framework Convention on Climate Change (FCCC) specifies that only "Parties to the Convention may be Parties to a protocol." However, there is no assurance that all or even a majority of the 167 Parties to the FCCC will deposit instruments of ratification, acceptance, approval or accession to any protocol adopted by the Parties by consensus or otherwise in Kyoto. What assurances does the U.S. now have that most, if not all, developing country Parties to the FCCC will become Parties to a Kyoto protocol? Why is it in the U.S. interest to agree, without such assurances, to a protocol that proposes to set legally binding post-2000 targets and timetables for Annex I Parties only and also imposes on the U.S. new and legally binding commitments to advance implementation of Article 4.1. of the FCCC, such as those prescribed in paragraph 1, 2, 3, and 4 of Article 5 of the U.S. draft protocol?

20. In a July 18, 1994 letter to the then House Committee on Energy and Commerce, [the State Department] said:

> We agree that there are substantial commitments beyond 2000 for all parties to the Framework Convention under Article 4. Article 4.1 (applicable to both developed and developing countries) contains commitments that are not limited by any specific timetable.

a) Is there any evidence to date that the U.S. is not abiding by these Article 4.1 commitments? If there is none, why should the U.S. voluntarily agree to reaffirm, as required by Article 5.1 of the June draft, to what the U.S. already agreed to when it ratified the FCCC in 1992?

b) Is the U.S. asserting that other Annex I Parties are not abiding by such commitments? If so, please identify those Parties.

21. Paragraph 2 of Article 5 of the U.S. draft Protocol mandates each Party to "strengthen its legal and institutional framework to advance implementation" of Article 4.1 commitments. What "framework" does the Administration have in mind? Does this suggest a new Federal or international agency or program? Would this be done through new legislation? If not, how would it be achieved in the U.S.?

22. Article 5.3 requires that each Party take "measures to facilitate investment in climate-friendly technologies." What "measures" does the Administration contemplate? How would they be implemented in the U.S.? What are their regulatory and budgetary implementations?

23. Article 16 of the draft provides that the Parties "shall adopt, by [2005], binding provisions so that all Parties have quantitative greenhouse gas emissions obligations and so that there

is a mechanism for automatic application of progressive greenhouse gas emissions obligations to Parties, based upon agreed criteria."

a) Does this mean that there could be a second protocol or another legal instrument by [2005] which is only 7 years after the December meeting in Kyoto?

b) Do the words "all Parties" in this Article mean that only the "Parties" to the U.S. draft protocol would be required to "adopt" by 2005 such an instrument? Unless developing country Parties to the FCCC, such as China, India and Brazil, become Parties to the Kyoto instrument (as proposed by the U.S.) prior to [2005], how does this Article address the issue of greenhouse gas emission growth by all non-Annex I Parties?

c) Could such a new instrument adopted by [2005] impose new and additional obligations on the U.S. beyond those proposed to be adopted in Kyoto? Why is that possibility a good result for the U.S. economy, trade, and competitiveness?

d) What "mechanism for automatic application of progressive greenhouse gas emissions obligations" does the Administration contemplate by this proposal? What are its implications for the U.S., including its sovereignty?

24. Article 16.1 of the Convention provides that "annexes shall be restricted to lists, forms, and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character." The U.S. draft protocol states, that it may not be "appropriate" to adopt the Article 16.1 Convention example. Please explain why. Does the U.S. support annexes that would be substantive and mandatory?

25. Article 9 of the U.S. draft provides that Parties "shall cooperate" in establishing a "long-term goal" regarding concentrations of gases. Article 10 calls for meetings at "regular intervals" to, among other things, "periodically review the adequacy" of the Protocol and Article 8 calls for periodic review of the Protocol and guidelines "in light of evolving scientific knowledge related to climate change." Article 2 already suggests a minimum of two budget periods. Article 16 tells the Parties to adopt "binding provisions" by [2005] for progressive "obligations." Does the State Department contemplate over the next several decades a continuing process of meetings of both the Protocol and Convention Parties annually and a series of IPCC assessments, special reports, and technical papers, leading to a series of protocols or other legal instruments that are likely to have significant economic impacts on the Parties and their people? Why is there a need for such frequent meetings and reviews?

26. The Global Climate Coalition sent a letter to the Department of State on February 14, 1997 raising a number of questions about the January 17, 1997 version of the U.S. draft protocol, particularly in regards to trading. The Administration has not yet responded to those questions. Please respond to them as part of your reply to this inquiry.

EU Bubble

27. The EU proposal made recently in Denver was developed last March as an EU "negotiating position for the ongoing negotiations on the Berlin Mandate" and it includes burden-sharing of a 10% reduction among EU members of the "overall emission reduction objective by the Community as a whole". This appears to be a form of differentiation, a concept the U.S. is not supporting. The existing FCCC bubble applicable to the EU presumably only covers policies and measures and, when adopted, it only covered the 12 Parties that were members of the EU in 1992. Does the U.S. understand that the EU is seeking, by its submissions and discussion with the U.S. delegation, to extend a form of the FCCC bubble to a protocol and another legal instrument that may be adopted in Kyoto, to expand the bubble to cover any target and timetable or financial obligations and not just policies and measures, and to expand the bubble to include all present and future members of the EU, such as countries from Central and Eastern Europe? Why is such an expanded bubble in the economic and competitive interests of the U.S.?

28. What is the potential impact of such an expanded EU bubble on the U.S. proposal for international emissions trading? Would it ensure that the EU would get the benefit of any emissions deficit derived from such Central and Eastern European Members and deprive the U.S., Japan, Australia and Canada of that deficit? Would the U.S. then have to rely primarily on Russia's emissions deficit in order to derive any of the benefits of trading?

29. Article 22.3 of the FCCC requires that regional economic integration organizations must declare the "extent of their competence" with regard to obligations under the FCCC. Does the U.S. believe that the EU has the competence to carry out legally binding targets and timetables and to enforce any differentiated targets for its members if they fail to achieve them?

30. The State Department's September 9, 1996 reply to the Committee stated that the U.S. did not agree to an "EU Bubble in Berlin" and that the U.S. delegation "successfully opposed including language in the Berlin Mandate which might have suggested that any country or group of countries could "bubble" in the post-2000 period." The reply then said:

> Clearly, the question of "bubbling" with respect to post-2000 commitments is complex, and one that will be closely scrutinized and carefully considered as negotiations progress. The Administration has consistently and continuously consulted with Congress, as well as with U.S. industry and U.S. NGOs, on all aspects of the negotiations concerning post-2000 commitments and will continue to do so.

The Administration has not yet held meaningful discussions with this Committee on the issue of the EU bubbling to "meet and target and timetables," its implications for the U.S., its merits, or its complexities. Given the fact that negotiations are just approaching a conclusion in Bonn and Kyoto, when do you plan to consult us on this aspect of the negotiations?

31. Since 1992, the composition of the only "regional economic integration organization," namely the EU, has grown from 12 to 15 members and several other countries want to expand it further. Under what circumstances would the U.S. agree to an EU bubble that is or could be expanded?

EU Amendment to Convention

32. The EU has proposed an amendment to the Convention to provide for a vote to adopt all future protocols by three-fourths if all efforts at consensus are exhausted. The proposed amendment would appear to have a retroactive effect for Kyoto.

a) Under this proposal, is it possible that three-fourths of the FCCC Parties could vote to "adopt" any Protocol that imposed new obligations for Annex I and/or non-Annex I Parties and then decide not to deposit an instrument of ratification, etc.?

b) Does the U.S. support such an amendment to the Convention?

c) Has the U.S. position changed from its June 19, 1996 response to this Committee in regards to any of these matters? Would the Administration agree to a resolution of one of these matters, namely voting on a protocol, without a resolution of the financial and budget matters for both the Convention and all future protocols?

Emissions Trading

33. Does the Administration intend that any international emission trading program would apply in the same way and to the same extent to public and private entities internationally and in the U.S.? For example, would it apply to local governments and to defense or other agencies of each Party and to the emissions of such entities? What will be the impact on the U.S. Defense Department of an international, or, for the matter, a domestic, emissions trading program?

34. Greenhouse gases not covered by the Montreal Protocol are not pollutants within the meaning of the Clean Air Act and are not subject to the command and control provisions of the Act or other environmental laws. It is our understanding that although the U.S. has cited (in a September 9th reply to this Committee) authority to implement the Climate Change Action Plan with voluntary measures, the U.S. draft protocol, because it may call for mandatory measures, could not be given full effect in the U.S. without the enactment of new legislation by Congress. Do you share that understanding? Is the Administration considering a domestic emission trading legislative program patterned on the 1990 Clean Air Act?

General

35. I understand that the Administration has recently established the White House Climate Change Task Force, a Deputies Group and an Assistant Secretaries group. Please explain the role and purpose of each in regards to the development of the Administration's position and policies for the international negotiations for a protocol or another legal instrument in 1997 and for the development of implementing legislation in the U.S. Please identify the members of each group. Please provide any documents regarding the formation of these groups, their membership, mission, tasks, and/or assignments.

36. Please provide a table of all contracts, cooperative agreements, grants, and interagency agreements and any extensions thereof (hereinafter referred to as "agreements") entered into with any individual, agency, or public or private entity (foreign or domestic) by or through any federal Department or Agency, including the Departments of State, Commerce and Energy, and the Environmental Protection Agency, for the period beginning July 1, 1994 to the present that relates to, or includes, (directly or indirectly) climate change matters or issues of any kind. These should include matters relating to (a) domestic or international emission trading, including economic and other analysis of such trading, the administration and verification of such trading in the U.S. and elsewhere, (b) public outreach, general and specific public education, grass roots, community outreach, workshops, (c) transportation efficiency, alternative fuels, transportation generally, utilities, impact on pollutants like ozone and particulate matter, and (d) any legal analysis of these matters and of the Convention or of any statutes concerning climate change or trading. Each table should identify the date of the agreement, the agreement recipient, the amount of Federal funds, the term, including extensions, a brief description, the product and whether it is publicly available, and the status. Please include with each table the applicable "Statement of Work", including any revision thereof, for each such agreement.

FRANK H. MURKOWSKI, Alaska, Chairman

PETE V. DOMENICI, New Mexico
DON NICKLES, Oklahoma
LARRY E. CRAIG, Idaho
'I NIGHTHORSE CAMPBELL, Colorado
'G THOMAS, Wyoming
KYL, Arizona
J GRAMS, Minnesota
GORDON H. SMITH, Oregon
SLADE GORTON, Washington
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United States Senate

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, DC 20510-6150

JLY
cc: JAF
RMB
RL
AM
JA

October 3, 1997

Mr. Dirk Forrister
Chair
White House Climate Change Task Force
The White House
Washington, DC 20500

Dear Mr. Forrister:

Because the administration declined to provide a witness for our September 30 hearing on climate change, members of our Committee were unable to ask questions on a variety of issues relevant to the climate change negotiations.

In an effort to allow the Senate—and the public at large—to appreciate the diplomatic, economic and technical issues we face as a consequence of the climate change issue, I respectfully request that the enclosed written questions for the record be answered in a time frame prior to or concurrent with the upcoming negotiations in Bonn.

Should you, your staff, or officials in agencies generating responses to these questions require clarification of additional information, David Garman of the Senate Energy Committee staff may be reached at (202) 224-7933.

Thank you for your attention to this request. I will look forward to the administration's responses.

Sincerely,

Frank H. Murkowski
Chairman

cc: The Honorable Federico Peña
The Honorable Janet Yellen
The Honorable Timothy Wirth
The Honorable Chuck Hagel
The Honorable Robert C. Byrd

Questions from Chairman Murkowski

1. When will the Administration unveil its proposed "targets and timetables" for carbon emission reductions?

2. When will the Administration release to the public the economic analysis that it used in reaching these targets and timetables?

3. Will the economic analysis used to arrive at these targets and timetables be peer reviewed?

   a. If not, why not?

   b. If so, will the peer reviewers comments be made public?

4. The Administration has indicated that it seeks to have an international emissions trading scheme in the new treaty.

   a. Roughly how many of the 165 parties to the existing climate treaty have agreed to this approach?

5. The Administration has indicated that it wanted to have "joint implementation" with developing countries as a means to reduce the costs of treaty compliance.

   a. Roughly how many of the 129 developing country parties have agreed to this approach?

6. The Administration has indicated that it will "advance existing commitments" for developing countries and has even proposed a means under which developing nations would "graduate" into binding commitments.

   a. Roughly how many of the 129 developing country parties have agreed to the "graduation" approach?

   b. Roughly how many of the 36 industrialized country parties have agreed to the "graduation" approach?

7. Some of the key strategies for our negotiations—including developing country participation, joint implementation, and emissions trading—are not faring well in the negotiations.

   a. If we don't get all of these elements in a Kyoto Protocol, will we walk away from the deal?

8. **Last week the DOE released a report (the so-called "five labs" study) indicating that we might reduce carbon emissions to 1990 levels with a \$50/ton carbon tax and an aggressive energy R&D program. In response to this report, the Secretary of Energy was quoted in a press release as saying that the analysis "...showed that what was good for the environment would be good for the economy."**

   a. **Is it the Administration's position that a \$50/ton carbon tax would be good for the economy?**

   b. **Does the DOE study analyze impacts on business and manufacturing?**

   c. **Is the DOE study an economic study or an attempt to make predictions?**

9. **The economic modelling effort that was abandoned by the Administration earlier this year assumed that the mere announcement of an agreement to reduce carbon dioxide would immediately result in a 25% increase in the rate of improvement in energy efficiency.**

   a. **Was this a valid and realistic assumption?**

   b. **Did the peer reviewers feel it was a realistic assumption?**

10. **The administration economic modelling effort also assumed a decrease in long term interest rates to almost 2%.**

   a. **Was this a valid and realistic assumption?**

   b. **Don't new taxes and higher costs tend to increase inflation and interest rates?**

11. **The administration modelling effort did not consider the costs associated with the development, implementation and monitoring of a trading program.**

   a. **Was this a valid and realistic omission?**

12. **Did the administration modelling effort take into account the adverse effects on U.S. competitiveness and the potential shifting of producers in the United States?**

13. **It was reported earlier this month that the Administration is considering an executive order that would require federal agencies to reduce emissions by 20%. It was also reported that the Department of Defense will oppose any Administration proposal on climate change that threatens military readiness.**

a. **What studies have been done to assess the impact of such an executive order on the U.S. military?**

b. **Have any such analyses been conducted by the Department of Defense to your knowledge?**

c. **Is consideration being given to granting waivers to federal agencies that cannot comply with emission reduction mandates without compromising their legal obligations and vital functions?**

d. **Is the Administration considering granting a waiver to the Department of Defense? To any other departments or agencies?**

14. **The DOE "five labs" study concludes that a carbon emission reduction of 390 million metric tons per year is required to stabilize emissions at 1990 levels in 2010 and is based on implementation of the program by the year 2000. The study finds that by increasing energy efficiency through a variety of federal and state programs with industry participation as well as imposing a $50 per metric ton of carbon permit price that "2010 emissions could be cut by about 390 [million metric tons] per year."**

a. **Does this mean that we can reach 1990 levels by the year 2010 or that in the year 2010, using new technology in combination with regulatory and other measures, we will begin to reduce emissions at a rate high enough to stabilize emissions at 1990 levels at some point in the future?**

b. **In 2010, how many million metric tons will China or Brazil be emitting per year? More than 390?**

15. **The DOE study concludes that "in all [three] cases, carbon reductions require the nation to embark on an aggressive set of policies and programs."**

a. **Assuming everything works as has been hypothesized in the Efficiency Case (Case One), we will not achieve stabilization of carbon emissions at 1990 levels by 2010, correct?**

16. **According to the report, the Case 2 and 3 scenarios require "better technology, 'readier' markets, and a price of carbon that results in a significantly increased willingness to manufacture, purchase, and use low-carbon technologies. It represents a vigorous national commitment that goes far beyond current efforts."**

a. **If we were to agree to implement a program similar to Case Two, including "a vigorous national program of research, development demonstration, and diffusion, and a trading regime for carbon" at** a price of $25/ton, we still will not stabilize emissions at 1990 levels by 2010, correct?

b. According to the DOE study, only if we were to do all of the above and impose a $50/ton carbon charge would we be able to achieve stabilization at 1990 levels by 2010, correct?

c. To your knowledge, has any nation involved in the international climate negotiations proposed the adoption of an international mandate for developed countries to stabilize emissions at 1990 levels by the year 2010?

d. If not, then this study fails to tell us what would be necessary to achieve the significantly higher emission reductions that would be necessary to comply with any of the climate proposals that are on the table, correct?

e. If that is the case, then this study also fails to demonstrate that the U.S. can comply with the kind of legally binding emission reduction mandates currently under consideration in the international negotiations through use of existing technology at no cost to the nation, correct?

f. If $50/ton charges are required to stabilize emissions at 1990 levels by 2010, how much would the per ton charge need to be to reduce emissions to 10% or 15% below 1990 levels? Would it double? Triple?

17. Recent studies conducted by DRI/McGraw-Hill conclude that a $180-190/ton carbon charge would be necessary to stabilize emissions at 1990 levels by 2010. (Pg. 4 of July 1997 study, "The Impacts of Carbon Mitigation Strategies . . . ")

a. Can you explain why there is such disparity between DRI's and DOE's estimates of the per ton charge necessary to reach 1990 levels by 2010?

b. Has any attempt been made to reconcile these significant differences?

c. Is it possible that the necessary carbon charge would be higher than $50/ton to simply stabilize emissions at 1990 levels by 2010?

18. One of the primary conclusions stated in the DOE study is that each of the three scenarios under consideration "can produce energy savings that are roughly equal to or exceed costs" . . . "if feasible ways are found to implement the carbon reductions...." The report states, however, that the study did not analyze specific policies to achieve the reductions described in the cases or the political feasibility of policies.

a. If we don't know what the policies or means for reductions are, and have not determined whether or not they are feasible, how can we rely on this report's conclusion that the reductions can be achieved without a cost to the nation?

b. What are some of the means that might be used to achieve the reductions? Would it involve new taxes? Note: Possible programs mentioned include "energy efficiency codes and standards" and "incentives through the tax system directed at investments in energy- efficient technology in industry." (Page 1.13)

19. In numerous places in the report, information is provided on what costs were taken into account or were excluded from consideration in making the cost-benefit assessments. "... we count as benefits only the energy savings to the nation.... Costs include the increased technology cost plus an approximate estimate of the costs of program and policy implementation." (Exec. Summary, footnote 2)

a. If no effort has been made to analyze specific policies to achieve the described reductions, how did you determine costs of programs and policy implementation?

b. What is an example of a "program" that was included in your analysis. What is the cost of that program? What cost did you assign to the "policy implementation" associated with that program?

20. On page 1.12 of the report the following statement appears: We have presented the direct and most easily quantified of the costs and benefits, but have not attempted a full benefit-cost analysis. We do not account for indirect effects of policies (e.g., the reallocation of investment dollars to efficiency investments). We do not account for the increased cost of some R&D programs that are needed to achieve the scenario results nor do we count the benefit of reduced carbon and other pollutant emissions. Also, we have not analyzed any possible redistribution of wealth that could arise from a carbon trading system or other policy to increase the price of carbon-based fuel."

a. Aren't these pretty significant holes in DOE's analysis?

b. If a "full benefit-cost analysis" has not been conducted, then how can you legitimately conclude that emission reductions can be achieved through energy efficiency without cost?

21. On page 1.15, the report states that the $50/ton carbon charge is not a "direct cost."

a. Why isn't the carbon charge considered a "direct cost?"

b. Isn't it a direct cost to someone? Who has to pay it?

c. Is the cost of the carbon permit fees included in the analysis in any way?

22. The report characterizes the carbon charge as "a potentially large transfer payment" and makes the following statement: "The magnitude of the transfer payment, as well as the losers and winners from the transfers, depends on the nature of policy and its implementation as a cap and trade system or some alternative. The amount of money that could be in play is very large: $50/ton times 1.3 billion tons per year equals $65 billion per year." (Page 1.15)

a. Is it correct then that the study concludes that emissions reductions could be made at low or no cost yet fails to take into account some $65 billion in "transfer payments?"

b. Who are these "losers" the DOE report refers to?

23. In describing the results of DOE's analysis, the statement is made that the DOE report "makes a strong case for the value of energy technology research, development, demonstration, and diffusion as a public response to global climate change." As the report points out on page 1.3, DOE's expenditure of $8 million on energy-efficiency research between 1978 and 1996 has resulted in net benefits of $28 billion through 1996 including significant environmental, health, productivity and economic competitiveness benefits. As you know, numerous economists agree that research and development and technology deployment is the most cost-efficient way to address climate concerns. Indeed, it is precisely because of the kinds of cost-effective opportunities DOE has identified that these economists have concluded in a number of independent studies that the wisest course of action, is to delay the adoption of any kind of mandates or legally binding targets and timetable for a modest period of years to permit research and development to occur and to generally avoid replacement of equipment and machinery prior to the end of its useful life cycle.The Administration has previously testified that if we "do it dumb," compliance with the proposed international target and timetable mandates could be very costly to the U.S.

a. Doesn't the DOE report provide further support and justification for not rushing into legally binding emission reduction mandates in December in Kyoto but delaying - even for a few years - to reap the benefits of the kinds of R& D the DOE report is promoting?

b. Can you quantify the "cost" of delaying for 10 or 20 years?

c. **Can you demonstrate that the cost of delay exceeds the cost of adopting international mandates three months from now?**

24. **According to the DOE report, 95 million of the 135 million tons of carbon reductions necessary in the utility sector to achieve stabilization at 1990 levels by 2010, "comes from retirement of coal power plants and carbon-ordered dispatching of the utility system . . . and from repowering coal plants with natural gas." (Page 1.6)**

    a. **How much does it cost to "repower" an average coal plant with natural gas?**

    b. **Who would bear these costs?**

25. **The DOE report says that the measures used to reduce emissions in the utility sector are "cost-effective with a $50/ton carbon charge." (Page 1.6)**

    a. **When you say that retiring a coal plant is "cost-effective" with a $50/ton carbon charge, aren't you really saying is that if we impose a fee of $50 per ton of carbon, a given number of coal plants will be forced to shut down?**

    b. **How many existing coal plants would be "retired?"**

    c. **Where are these plants located?**

    d. **Has any consideration been given in DOE's analysis to the costs associated with the shutdowns, layoffs, displacements that would occur as a result of "retiring" existing plants?**

    e. **When you say that energy savings or reductions can be achieved at little or no cost "to the nation," does that include the citizens, communities and businesses in this country?**

26. **The DOE report also states that the remaining reductions in the utility sector would be achieved from renewables such as wind, biofuels, expansion of hydropower, and extension of nuclear power plant life. (Page 1.6)**

    a. **Explain what is meant by "nuclear power plant life extensions."**

    b. **Does this study contemplate new nuclear power plants or a greater dependence on nuclear power?**

27. **Turning to the transportation and industry sectors, the DOE report contemplates a reduction of 50 million tons of carbon per year through (a) advanced combustion turbine cogenerators in industry; (b) biomass and black liquor gasification and low-carbon industrial**

processes; and (c) cellulosic ethanol/gasoline blends for automobiles. (Page 1.6)

- a. **What kinds of industrial processes utilize advance combustion turbine cogenerators?**
- b. **What percentage of industrial plants currently use these turbine cogenerators?**
- c. **How much would it cost a given plant to re-outfit with a turbine cogenerator?**
- d. **Are cellulosic ethanol/gasoline blends currently available to American consumers? What automobiles can use this fuel? What kind of conversion would be necessary for other cars to use this fuel? What would it cost?**

28. **The Acid Rain trading program exists solely within the United States and operates primarily through the annual allocation of sulphur dioxide permits to a known group of electric power generators, correct?**

- a. **Why are the permits generally allocated only to electric power generators?**
- b. **What mechanism is used to determine whether these entities' emissions are within their permit allowances?**
- c. **What happens if a company's emissions exceed its permits?**
- d. **What legal process exists to allow the regulated community to appeal decisions with which it disagrees in connection with the trading and emission program?**
- e. **What costs are associated with the operation and administration of the trading program? How are these costs minimized to maintain market incentives?**

29. **I understand that the establishment of a trading regime similar to the sulphur dioxide program for carbon emissions has been proposed.**

- a. **Would the carbon trading program operate domestically or internationally?**
- b. **What role is envisioned for the Chicago Board of Trade?**
- c. **Could a U.S. company such as an automobile manufacturer in Detroit purchase carbon permits through the Board of Trade from another developed country such as Germany? From a**

developing country such as Guatemala or Botswana?

d. If carbon permits may be purchased from a developing country, how would it be determined how many permits each developing country would be allocated?

e. Would any UN agencies or bodies be involved in the implementation of the emission trading program? How would they be funded?

f. What kind of transaction costs would you expect to be associated with an international emissions trading program?

g. Would state or local governments be required to purchase carbon units for emissions? Federal agencies?

h. What kind of allocation process would be set up to establish the caps that would be required to provide incentives to trade?

i. In the Acid Rain program, compliance with permits is ensured through sophisticated continuous emissions monitoring equipment. How would compliance with permit limitations be ensured under this program?

j. Would developing countries have to reduce their own emissions by one ton of carbon for each carbon unit they sell? How would compliance be ensured for developing countries? Will developed countries only be able to sell a carbon unit if they can demonstrate they have already achieved the relevant reductions?

k. What penalties would apply if a developing country failed to reduce its emissions at an amount commensurate with the carbon units it had sold?

l. Who will monitor countries or companies for enforcement purposes?

30. What is the administration's calculation or estimate of the greenhouse gas emission reduction equivalent of the Clean Coal Technology Program, which was a 7 billion dollar program, at least half of which came from private industry?

31. What exactly is the Administration itself doing to develop new technologies to reduce greenhouse gas emissions? I'm not talking about what the government is doing with industry in a partnership, or what industry is doing alone—what is the federal government doing itself?

United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510-6175

Received
8/6/97
@4:00 p.m.
JHW

July 30, 1997

Dr. Janet Yellen
Chair, Council of Economic Advisers
Old Executive Office Building
Room 314
Washington, D.C. 20520

Dear Dr. Yellen:

Thank you for appearing before the Committee on Environment and Public Works on July 17, 1997 to proffer your understanding of global climate change. Your testimony was helpful and I know that your input will prove valuable as the Committee continues its work on this important topic.

Enclosed are questions posed by Members of the Committee for the hearing record. Please submit your answers by August 13,1997 to the attention of Justin Brown, Senate Committee on Environment and Public Works, 407 Hart Senate Office Building, Washington, D.C. 20510.

Again, thank you for your assistance and please contact Dan Delich at 202-224-5762 if you have any questions. We look forward to reviewing your answers.

Sincerely,

John H. Chafee

John H. Chafee

Enclosures

Questions for Dr. Yellen (from Senator Chafee)

1. Dr. Yellen, you indicate at the beginning of your testimony that the Administration, "has not settled on a particular set of new policies to reduce greenhouse gas emissions." We are now twenty weeks away from Kyoto, when will it? Is there still time for informed public review and debate on the options?

2. You also say in your prepared remarks that, "the effort to develop a model or set of models that can give us a definite answer to the economic impacts of a given climate change policy is futile." How are we to respond? What reliable tools do we have to determine what, if any, agreement is best for the United States?

3. Is the Administration considering some form of new energy tax to administer a new treaty, domestically?

4. What advantages or disadvantages (economically and environmentally) might a trading system have over energy taxes?

5. In order to use flexibility instruments like the proposed joint implementation and emissions trading, do we need to have a cap on nations' emissions?

   To what extent can these instruments reduce the cost of implementation of greenhouse gas emissions reductions for the United States and others? Is there reliable data available?

6. Some have argued that innovation toward less greenhouse-intensive technologies will occur in the absence of any market signal? Do you agree? Why or why not? If

a market signal is needed, how should it be provided?

7. **Many are concerned that caps on industrialized nations' emissions, without similar caps on developing nations' emissions, will simply promote the flight of jobs, capital, and polluting activity to developing nations. Is this a valid concern? How should it be addressed? Would joint implementation help?**

(SENATOR BOXER)

Questions

Dr. Yellen:

- In the Administration's economic analysis, it is stated that, "There is no evidence of a wholesale 'capital flight' from the United States resulting from an emissions reduction policy." Can you please expand on this?

- The United States has far lower energy costs than Europe and Japan. How would our costs of emission reductions compare with theirs? How would this affect our ability to compete?

- Dr. Yellen, we have heard horror stories of all the catastrophic economic effects that embarking on a policy of reducing our greenhouse gas emissions would cause. Did the administration's analysis consider the positive effects on health, environment, **AND** the economy that reducing greenhouse gases would produce?

- We heard last week that the longer we wait to implement our reductions, the more costly it will be in practically all sectors - health, environment, and jobs. This reminds me of that commercial where the grizzled mechanic says, "You can pay me now, or you can pay me later." What did your analysis find in terms of the costs of delaying action?

- California has been a leader in development of new energy technologies. Based upon your analysis, what industries are likely to grow over the next 20-30 years?

Questions from Senator Lieberman for Janet Yellin

1. Congressman Dingell suggested on 6/19/97 that the Administration's analysis is "too late to inform the process, and likely will be used to justify what the Administration has already decided to do." Please comment on his concerns.

2. If the economic impacts of climate policies cannot be determined precisely, how will the economic analysis be used to develop the Administration's specific positions on a target and a timetable? Can the relative costs of different policies be evaluated with confidence by the Inter-Agency Team?

United States Department of State

Bureau of Oceans and International Environmental and Scientific Affairs

Washington, D.C. 20520

JLY
JAF
JA
RL
AM

Date: 9/24/97
Time:

FAX Cover Sheet

To: Michelle Julen
Org.: CEA
FAX: 395-6958
Phone:

From: Linda Strachan / Franz Wuerfmannsdobler
FAX: 202-647-0217
Phone: 202-647-3550 / 202-736-7781

Number of pages to follow: 14

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Memo: Current Q's and A's per our conversation today. They are being circulated to OMB. We still have Q's and A's to fill in.

Questions for the Record Submitted by Chairman Schaefer to
Under Secretary of State Timothy Wirth
House Committee on Commerce
Energy and Power Subcommittee
July 15, 1997

1. Q: **Please identify each member of the Interagency Analytical Team (IAT) from the date of its inception to the present time, any other participants inside or outside the Administration, and specify their responsibilities.**

A: Attached is former Under Secretary Ehrlich's list of people to call regarding IAT meetings. Members of the IAT had varying levels of participation and responsibility.

2. Q: **When was the IAT formed and what were the IAT's instructions? Please provide any documentation regarding the formation of the IAT and its mission, responsibilities, membership or assignments.**

A: Previously, Agencies worked independently on climate change economic analysis. Beginning in February 1996, however, the Department of Energy and the Environmental Protection Agency began to work together on global climate change analysis and called it the IAT. Their joint efforts provided the analytical foundation for the Springfield Global Climate Change Workshop in June 1996.

Former Under Secretary Ehrlich joined the Administration's climate change analysis effort shortly after the June 1996 Climate Analysis Workshop. He oversaw the analysis from mid 1996 to May 1997. Under Secretary Ehrlich's instructions were to use the IAT to provide a set of analytic tools that would allow the Administration to better understand the economics of the climate change issue.

3. Q: **Please indicate the total costs of the IAT's efforts and the share paid annually by each Department or Agency that was involved and please identity the source of the funds within each Department or Agency.**

account for

A: Costs for the IAT were primarily for personnel. No effort was made to ~~accumulate~~ costs related to the IAT activities. DOE and EPA, who had primary responsibility for the analysis efforts, did have some contract costs for modeling.

4. Q: **Is the IAT still in existence? If so, what are its current responsibilities?**

No IAT economic analysis of global climate change is underway.

5. Q: **Please provide a copy of all drafts of the IAT report in addition to the May 16th and 30th, 1997 drafts, both earlier and later.**

A: Enclosed with this response are photocopies of the May 12th, May 16th, and May 30th drafts of the IAT paper. The May 12th draft was circulated among members of the IAT and senior members of the Administration involved in climate change policy. The May 16th draft was circulated to the peer reviewers, members of the IAT, and senior members of the Administration involved in climate change policy. The May 30th draft was released to the public on July 15th.

6. Q: **Please explain how the peer reviewers were selected? What instructions were those peer reviewers given? Please provide copies of any correspondence or instructions that were sent to the peer reviewers.**

A: The peer reviewers were selected based on recommendations from senior IAT members. Former Under Secretary Ehrlich made the final selection after consultation with the IAT and members from the White House Task Force on Climate Change.

Former Under Secretary Ehrlich sent letters and attachments to each of the reviewers as well as personally contacting each of them. The letter dated March 20th is a copy of the initial letter sent to Professor Jorgenson. Identical letters were sent to the other peer reviewers over a period of weeks. Enclosed with this letter were a technology note and information on the IAT models and baseline. The undated letter is a copy of the letter that was sent to all reviewers on May 16th with copies of the May 16th draft of the IAT report. Copies of materials sent to the reviewers are enclosed.

7. Q: **If the IAT effort is in fact a "failed" project as indicated in Administration testimony at the Subcommittee hearing how will the Administration determine the appropriate level of future international climate change commitments for Kyoto and later?**

definitive answer on the

A: The IAT effort generated much useful information about how to model constraints on greenhouse gas emissions and their potential economic effects. However, the IAT process was unsuccessful in providing a ~~sufficiently narrow range of estimated~~ economic effects to support the Administration's overall decision-making process. As part of the ongoing Administration decision process, a number of different economic and other analyses are being evaluated as guides to the likely effects of reducing greenhouse gas emissions.

8. Q: As late as last May when Dr. Ehrlich and others in the Administration held briefings on the then draft analysis and assessment there was no hint that the Administration considered this effort a failure and the models to be unreliable. What occurred since May that caused the Administration to apparently reach a different conclusion from that of Dr. Ehrlich?

or substitute w/ "the concerns raised by the peer reviewers"

A: When the Administration provided briefings on the work being done by the IAT, the focus was on determining baselines for emissions levels, economic growth, and other key variables. and for explaining the different models that were being used. As the work done by the IAT proceeded, the wide range of economic outcomes called into question the benefits of continued IAT work on these economic models, given the many other competing claims on agency resources.

9. Q: The IAT draft Analysis referred to three scenarios which resulted in costs of future climate commitments of approximately $200, $100, or $50 per ton carbon tax equivalent. Has the Administration concluded that a $200 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness? Has the Administration concluded that a $100 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness? Has the Administration concluded that a $50 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness. Please provide the basis for any of the above conclusions. If the Administration does not support any of the above costs, what analysis or other information does the Administration intend to rely on to support a different amount?

$207 MM -10% case in 2020 largest 2010 DRI $200 -10%

A: ~~The~~ implicit price of carbon for the Unites States reported by the ~~IAT ranged~~ from $9 to $145, depending on the situations, models, and the assumptions ~~and models~~ used. ~~Similarly~~, the impact on the U.S. ~~gross~~ domestic product spanned a wide range. The IAT found that the estimates of the costs to the U.S. economy of a carbon emissions reduction policy depended on factors, including targets and timetables, technology assumptions and the implementation of international emissions permit trading. As Dr. Janet Yellen remarked in her July 15,1997, testimony to the House Commerce Subcommittee on Power , "It boils down to this: if we do it dumb, it could cost a lot, but if we do it smart, it will cost much less, and indeed could produce net benefits in the long run."

revenue recycling, allocation of permit, mkt based incentive

10. Q: **Is the paper prepared by the IAT both an analysis and an assessment? How does it relate to the "analysis and assess merit" referred to in Paragraph 4 of the Berlin Mandate? Has the Ad Hoc Group on the Berlin Mandate provided an analysis and assessment as required by the Berlin Mandate?**

A: The IAT analyzed a ~~wide~~ range of emissions targets and timetables as well as a range of implementation ~~plans (such~~ as international emissions trading and joint implementation). The IAT analysis does not have any direct relationship to the cited paragraph from the Berlin Mandate.

11. Q: **The IAT draft states that the central policy modeled for the analysis "is aimed at reducing carbon and other greenhouse gas emissions by stabilizing them at 1990 levels" and that policy would be "announced in 2000 and its restrictions are phased in over a ten year period, so that the policy would take full effect In 2010." Reports in the media after the Denver Summit that President Clinton attended also referenced this date of 2010. In light of EIA's projection of emissions 22% above 1990 levels by 2010, is the Administration considering a target and timetable that calls for stabilization at 1990 levels by 2010?**

A: The IAT's analysis focused on a standard emissions target widely used in the academic literature. The Administration is in the process of determining its position on targets and timetable~~s~~. The Administration's negotiating position is still in development.

for comparing model results

12. Q: **The Administration frequently cites the 2000 economists who say they support controlling greenhouse gases. Their statement supports as the mechanism either carbon taxes or emissions permits. In the past, the Administration has said it opposes the use of taxes. Is that still the Administration's position?**

A: The Administration's position on implementation options ~~or~~ and strategies relating to greenhouse gas emissions reductions is still under development. This position will be determined in conjunction with a position on targets and timetables, which is also under development.

13. Q: **The IAT draft explains that these emissions reductions to achieve stabilization would be through "issuing tradable permits at the earliest point of energy production or when imported into the U.S." and that the permits "are initially auctioned in a way that is revenue neutral: i.e., all revenues generated would be recycled through the economy.". Would these revenues be deposited in the treasury as miscellaneous receipts under the Economy Acts? Would they then**

have to be recycled through changes in the tax laws or by appropriation? How would they be recycled?

A: The IAT considered a range of revenue recycling possibilities at a very abstract level. The IAT did not examine the legal framework under which these abstract options might be implemented in the United States.

14. Q: **Does the Administration believe that permit auctions are the equivalent of a new tax? If not, please explain.**

A: In general, they are not equivalent. Auctions focus on fixing quantities and leave prices free to fluctuate, while taxes focus on prices and allow quantities to adjust to changed price levels.

15. Q: **The IAT draft states that "among fuels, demand for coal bears the brunt of greenhouse gas stabilization." What is the impact on the U.S. economy as a whole and on the relevant coal regions of this policy towards coal? What will be the job impact? Is the Administration adopting an anti-coal policy? How is the policy consistent with President Clinton's 1995 reply to Mr. Dingell that the U.S. will not agree to any protocol that harms our economy and jobs or our competitiveness?**

A: The IAT analysis found that the implicit price of carbon would range from $9 to $145 per ton depending on the model and assumptions used and the specific scenario analyzed. Economic and job impacts would similarly span a range depending on the factors such as the rate of technological change, targets and timetables, and international emissions permit trading.

Δ

include 1st fr p 3 esp. rev recycling

It is important to stress that the IAT analysis is just that – analysis – and not policy, as the question suggests. The IAT examined a wide variety of different analytic scenarios as part of its work, and explicitly was not charged with making policy recommendations.

16. Q: **How long after December 1997 does the Administration think it will take to obtain Senate advice and consent of any Kyoto agreement, to ratify that agreement, and to enact implementing legislation?**

A: There is little information on which to judge the timeframe for the advice and consent process, or for the enactment of implementing legislation in the climate arena. The U.N. Framework Convention on Climate Change was ratified by the Senate in October 1992, only four months after it was signed by President Bush at the Earth Summit in Rio de Janeiro in June 1992. That Convention required no implementing legislation. However, other Conventions, such as the Law of the Sea, have yet to be ratified, more than a dozen years after signature.

17. Q: **Which agency or department would be responsible for implementing the provisions of any agreement reached in Kyoto, including provisions relating to joint implementation, emissions trading and advancing Article 4.1?**

A: It is anticipated that several Departments and agencies would have a role in the implementation of provisions related to joint implementation, emissions trading and Article 4.1, including the Department of State, the Department of Energy, The Department of Justice, the Treasury Department, the Department of Agriculture, the Agency for International Development, the Environmental Protection Agency, and possibly the National Oceanographic and Atmospheric Administration and the National Aeronautics and Space Administration. The precise role of each could only be determined once specific provisions had been decided upon.

Do we want to list these, or just specify that it will be a f(character of implementation)

18. Q: **What consideration has been given or plans made regarding passage of legislation necessary to implement any agreement reached in Kyoto?**

A: While some consideration has been given to the activities required under various agreement provisions (particularly those introduced by the United States), the lack of general acceptance of any of these provisions in the international negotiations makes the development of any specific legislative proposals premature. The Administration would intend, as part of its package of material to be sent to the Senate, to include its proposals for legislation that would be required to fully implement any agreement.

19. Q: **Article 17.4 of the Framework Convention on Climate Change (FCCC) specifies that only "Parties to the Convention may be Parties to a protocol." However, there is no assurance that all or even a majority of the 167 Parties to the FCCC will deposit instruments of ratification, acceptance, approval or accession to any protocol adopted by the Parties by consensus or otherwise in Kyoto. What assurances does the U.S. now have that most, if not all, developing country parties to the FCCC will become Parties to a Kyoto protocol? Why is it in the U.S. interest to agree, without assurances, to a protocol that proposes to set legally binding post-2000 targets and timetables for Annex I Parties only and also imposes on the U.S. new and legally binding commitments to advance implementation of Article 4.1 of the FCCC, such as those prescribed in paragraph 1, 2, 3, and 4 fo Article 5 of the U.S. draft protocol?**

A: [EGC]

20. **Q: In a July 18, 1994, letter to the then House Committee on Energy and Commerce [the State Department] said:**

> **We agree that there are substantial commitments beyond 2000 for all parties to the Framework Convention under Article 4. Article 4.1 (applicable to both developed and developing countries) contains commitments that are not limited by any specific timetable.**

a) **Is there any evidence to date that the U.S. is not abiding by these Article 4.1 commitments? If there is none, why should the U.S. voluntarily agree to reaffirm, as required by Article 5.1 of the June draft, to what the U.S. already agreed to when it ratified the FCCC in 1992?**

b) **Is the U.S. asserting that other Annex I Parties are not abiding by such commitments? If so, please identify those Parties.**

A: [EGC]

21. Q: **Paragraph 2 of Article 5 of the U.S. draft Protocol mandates each Party to "strengthen its legal and institutional framework to advance implementation" of Article 4.1 commitments. What "framework" does the Administration have in mind? Does this suggest a new Federal or international agency or program? Would this be done through new legislation? If not, how would it be achieved in the U.S.?**

A. The Berlin Mandate calls for the negotiating process to "continue to advance the implementation" of Article 4.1 commitments, which also apply to developing countries. The primary U.S. objective, in proposing paragraph 2 of Article 5, was to encourage developing countries with inadequate legal and institutional frameworks to strengthen such frameworks so as to improve implementation of Article 4.1. However, it was considered that there was no reason why such an obligation could not apply to all Parties, namely that all Parties could reasonably be asked to do something to strengthen their frameworks. Even the United States, with its highly developed legal and institutional system, could, for example, enhance its existing administrative abilities to collect and report on inventories of greenhouse gas emissions. It was not intended that any international institutions or processes would be needed to implement such a provision.

22. Q: Article 5.3 requires that each Party take "measures to facilitate investment in climate-friendly technologies." What "measures" does the Administration contemplate? How would they be implemented in the U.S.? What are their regulatory and budgetary implementations?

A: [Seidel]

23. Q: Article 16 of the draft provides that the Parties "shall adopt, by [2005], binding provisions so that all Parties have quantitative greenhouse gas emissions obligations and so that there is a mechanism for automatic application of progressive greenhouse gas emissions obligations to Parties, based upon agreed criteria."

a) Does this mean that there could be a second protocol or another legal instrument by [2005] which is only 7 years after the December meeting in Kyoto?

b) Do the words "all Parties" in this Article mean that only the "Parties" to the U.S. draft protocol would be required to "adopt" by 2005 such an instrument? Unless developing country Parties to the FCCC, such as China, India, and Brazil, become Parties to the Kyoto instrument (as proposed by the U.S.) prior to [2005], how does this Article address the issue of greenhouse gas emission growth by all non-Annex I Parties?

c) Could such a new instrument adopted by [2005] impose new and additional obligations on the U.S. beyond those proposed to be adopted in Kyoto? Why is that possibility a good result for the U.S. economy, trade, and competitiveness?

d) What "mechanism for automatic application of progressive greenhouse gas emissions obligations" does the Administration contemplate by this proposal? What are its implications for the U.S., including its sovereignty?

A: [EGC]

24. Q: Article 16.1 of the Convention provides that "annexes shall be restricted to lists, forms, and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character." The U.S. draft protocol states, that it may not be "appropriate" to adopt the Article 16.1 Convention example.

Please explain why. Does the U.S. support annexes that would be substantive and mandatory?

A: You correctly note that Article 16.1 of the Convention limits the use of annexes to certain types of material. This is not because there is any inherent reason why annexes should be so restricted. Rather, it is because Article 16 goes on to provide an entry-into-force procedure for annexes (and amendments to annexes) under which an annex (or amendment to an annex) enters into force for a Party unless a Party affirmatively does not accept it. (Other modifications to the Convention must be affirmatively accepted by Parties to be binding on them.)

In the context of the Convention, as well as other treaties, the U.S. insisted that the quid pro quo for such a "tacit" amendment procedure with an "opt-out" provision was that annexes be limited to material of a technical (scientific, etc.) nature. This view is consistent with views expressed by the Senate. The purpose of the U.S. comment with respect to the climate change protocol was to flag that annexes are not automatically entitled to "opt-out" procedures; rather, it depends on their context.

25. Q: **Article 9 of the U.S. draft provides that Parties "shall cooperate" in establishing a "long-term goal" regarding concentrations of gases. Article 10 calls for meetings at "regular intervals" to, among other things "periodically review the adequacy" of the Protocol and Article 8 calls for periodic review of the Protocol and guidelines "in light of evolving scientific knowledge related to climate change." Article 2 already suggests a minimum of two budget periods. Article 16 tells the parties to adopt "binding provisions" by [2005] for progressive "obligations." Does the State Department contemplate, over the next several decades a continuing process of meetings of both the protocol and Convention Parties annually and a series of IPCC assessments, special reports and technical papers leading to a series of protocols or other legal instruments that are likely to have significant economic impacts on the Parties and their people? Why is there a need for such frequent meetings and reviews?**

A: The U.S. has proposed a periodic review of the agreement to insure that any changes in the science are fully taken into account by the Parties. Such flexibility insures that if new information emerges indicating a reduced need to act, the agreement could be modified; conversely, if additional actions needed to be taken to address the threat of climate change, appropriate action would not be delayed. The U.S. proposal also seeks to insure that Parties would be fully informed regarding the compliance of all other Parties – thus removing a potential problem of one Party gaining a competitive advantage though not fully meeting its obligations, while other complying Parties might be penalized. Finally, the U.S. proposal, while setting specific commitments for developed countries, recognizes the need for all Parties to participate. It therefore calls for the negotiation of a new agreement by [2005] that would require all countries – including developing

is 2d part of this sentence necessary?

countries – to adopt legally binding limits on their emissions. We assume that at each stage of the process, a full assessment of the costs and benefits of action would be taken prior to committing the United States to any new legal obligation.

should we state this?

The U.S. proposal for an agreement does not specify the frequency of IPCC Assessments. These reports (the third of which is anticipated to be released in late 2000 or early 2001), have so far been scheduled on a five year cycle – long enough to allow new scientific information to develop, but frequently enough to provide the policy community with regular updates on the state of knowledge regarding the climate change issue.

26. Q: **The Global Climate Coalition sent a letter to the Department of State on February 14, 1997, raising a number of questions about the January 17, 1997, version of the U.S. draft protocol, particularly in regards to trading. The Administration has not yet responded to those questions. Please respond to them as part of your reply to this inquiry.**

A: [EGC]

27. Q: **The EU proposal made recently in Denver was developed last March as an EU "negotiating position for the ongoing negotiations on the Berlin Mandate" and it includes burden-sharing of a 10% reduction among EU members of the "overall emission reduction objective by the Community as a whole." This appears to be a form of differentiation, a concept the U.S. is not supporting. The existing FCCC bubble applicable to the EU presumably only covers policies and measures and, when adopted, it only covered the 12 Parties that were members of the EU in 1992. Does the U.S. understand that the EU is seeking, by its submissions and discussion with the U.S. delegation, to extend a form of the FCCC bubble to a protocol and another legal instrument that may be adopted in Kyoto, to expand the bubble to cover any target and timetable or financial obligations and not just policies and measures, and to expand the bubble to include all present and future members of the EU, such as countries from Central and Eastern Europe? Why is such an expanded bubble in the economic and competitive interests of the U.S.?**

A: The EU has made clear that it believes the bubble covers not only policies and measures, but also any target and timetable. It has argued that it may use the bubble not only in meeting the non-binding aim of the Convention, but also in meeting any new obligations established under the protocol or other legal instrument. To date, the EU has not discussed with us whether it also covers financial issues. They have also indicated they have not yet determined how or under what circumstances the bubble would apply to new member states.

The United States believes it is the interest of a stable Europe that the European countries continue to develop economically, and has so far been disinclined to intervene in the domestic affairs of any European nation. However, in the context of any new agreement under the Climate Convention, we have not yet accepted that the European member states should be allowed to "bubble" their obligations, nor would we support their doing so unless we were satisfied that such an agreement would not disadvantage the United States.

28. Q: **What is the potential impact of such an expanded EU bubble on the U.S. proposal for international emissions trading? Would it ensure that the EU would get the benefit of any emissions deficit derived from such Central and Eastern European Members and deprive the U.S., Japan, Australia, and Canada of that deficit? Would the U.S. then have to rely primarily on Russia's emissions deficit in order to derive any of the benefits of trading?**

A: The impact of an expanded EU on any emissions trading provisions is dependent on the level of the target, and the restrictions placed on a trading regime. If country targets or trading restrictions were set so that they required "real" reductions, no specific benefit would necessarily accrue to the European Union, and any reductions would entail real costs. Neither is it clear that the European Union would necessarily claim all the benefits of an expanded membership – emissions trading should in theory equalize the price of reducing a unit of emissions regardless of whether it is in Europe or Russia or the United States. Most analyses ~~does~~ ~~suggests~~ that if the U.S. is to use emissions trading to substantially offset its domestic emissions, even the entirety of the Eastern European country emissions would not suffice; Russia is the only country large enough to accommodate our current levels.

– ~~true~~, ~~but necessar~~ since our buying & selling is a f(t+t), should we be more vague?

29. Q: **Article 22.3 of the FCCC requires that regional economic integration organizations must declare the "extent of their competence" with regard to obligations under the FCCC. Does the U.S. believe that the EU has the competence to carry out legally binding targets and timetables and to enforce any differentiated targets for its members if they fail to achieve them?**

A: It is not yet clear how the EU competence will be applied in its implementation if any new obligations under a new legal instrument. We, along with others (e.g., Australia and Japan) have insisted that the issue of EU competence be made fully transparent and provisions for compliance be made acceptable to all Parties before we would agree to allow the EU to undertake its commitments as a single entity rather than individually through each member state.

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30. Q: **The State Department's September 9, 1996, reply to the Committee stated that the U.S. did not agree to an "EU Bubble in Berlin" and that the U.S. delegation "successfully opposed including language in the Berlin Mandate which might have suggested that any country or group of countries could "bubble" in the post-2000 period." The reply then said:**

> **Clearly, the question of "bubbling" with respect to post-2000 commitments is complex, and one that will be closely scrutinized and carefully considered as negotiations progress. The Administration has consistently and continuously consulted with Congress, as well as with U.S. industry and U.S. NGOs, on all aspects of the negotiations concerning post-2000 commitments and will continue to do so.**

The Administration has not yet held meaningful discussions with this Committee on the issue of the EU bubbling to "meet target and timetables," its implications for the U.S., its merits, or its complexities. Given the fact that the negotiations are just approaching a conclusion in Bonn and Kyoto, when do you plan to consult us on this aspect of the negotiations?

A: [EGC]

31. Q: **Since 1992, the composition of the only "regional economic integration organization," namely the EU, has grown from 12 to 15 members and several countries want to expand it further. Under what circumstances would the U.S. agree to an EU bubble that is or could be expanded?**

A: The U.S. has made it clear throughout these negotiations that there is no EU entitlement to a so-called "bubble" in the Kyoto agreement. Indeed, how a bubble would operate upon EU expansion is one of the many concerns that we and others (for example, the Japanese) have raised in connection with the EU proposal.

32. Q: **The EU has proposed an amendment to the Convention to provide for a vote to adopt all future protocols by three-fourths if all efforts at consensus are exhausted. The proposed amendment would appear to have a retroactive effect for Kyoto.**

a) **Under this proposal, is it possible that three-fourths of the FCCC Parties could vote to "adopt" any Protocol that imposed new obligations for Annex I and/or non-Annex I Parties and then decide not to deposit an instrument of ratification, etc.?**

b) Does the U.S. support such an amendment to the Convention?

c) Has the U.S. changed from its June 19, 1996, response to this Committee in regards to any of these matters? Would the Administration agree to a resolution of one of these matters, namely voting on a protocol, without a resolution of the financial and budget matters for both the Convention and all future protocols?

A: (a) Yes. Under the current Climate Convention, as well as this proposal, Parties could adopt an agreement (pursuant to whatever rule of procedure governs adoption) and then not ratify.

(b) We have substantial concerns about the provisional application aspect of the proposal. In effect, it amends the treaty without waiting for the Parties to ratify the amendment.

(c) [Unsure of response to Committee in July 1996 – must cross-reference.]

33. Q: **Does the Administration intend that any international emission trading program would apply in the same way and to the same extent to public and private entities internationally and in the U.S.? For example, would it apply to local governments and to defense or other agencies of each Party and to the emissions of such entities? What will be the impact on the U.S. Defense Department of an international, or, for that matter, a domestic, emissions trading program?**

A: [Seidel]

34. Q: **Greenhouse gases not covered by the Montreal Protocol are not pollutants within the meaning of the Clean Air Act and are not subjected to the command and control provisions of the Act or other environmental laws. It is our understanding that although the U.S. has cited (in a September 9th reply to this Committee) authority to implement the Climate Change Action Plan with voluntary measures, the U.S. draft protocol, because it may call for mandatory measures, could not be given full effect in the U.S. without the enactment of new legislation by Congress. Do you share that understanding? Is the Administration considering a domestic emission trading legislative program patterned on the 1990 Clean Air Act?**

A: [Seidel]

35) **Q: I understand that the Administration has recently established the White House Climate Change Task Force, a Deputies Group and an Assistant Secretaries group. Please explain the role and purpose of each in regards to the development of the Administration's position and policies for the international negotiations for a protocol or another legal instrument in 1997 and for the development of implementing legislation in the U.S. Please identify the members of each group. Please provide any documents regarding the formation of these groups, their membership, mission, tasks, and/or assignments.**

A: [Seidel]

36./**Q: Please provide a table of all contracts, cooperative agreements, grants, and interagency agreements and any extensions thereof (hereinafter referred to as "agreements") entered into with any individual, agency, or public or private entity (foreign or domestic) by or through any federal Department or Agency, including the Departments of State, Commerce, and Energy, the Environmental Protection Agency, for the period beginning July 1, 1994 to the present that relates to, or includes (directly or indirectly) climate change matters or issues of any kind. These should include matters relating to (a) domestic or international emission trading, including economic and other analysis of such trading, the administration and verification of such trading in the U.S. and elsewhere, (b) public outreach, general and specific public education, grass roots, community outreach, workshops, (c) transportation efficiency, alternative fuels, transportation generally, utilities, impact on pollutants like ozone and particulate matter, and (d) any legal analysis of these matters and of the Convention or of any statutes concerning climate change or trading. Each table should identify the date of the agreement, the agreement recipient, the amount of Federal funds, the term, including extensions, a brief description, the product, and whether it is publicly available, and the status. Please include with each table the applicable "Statement of Work," including any revision thereof, for each agreement.**

A: [Interagency]

CC; JAF
MJ
JY

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FAX TRANSMISSION

To: The Honorable Janet Yellen 395-[redacted] 6958

From: The Honorable Dan Schaefer

Date: August 25, 1997

Number of Pages (including cover sheet): 10

Notes:

U.S. House of Representatives
Committee on Commerce
Room 2125, Rayburn House Office Building
Washington, DC 20515–6115

August 22, 1997

The Honorable Janet Yellen
Chair
Council of Economic Advisors
Old Executive Office Building
Washington, D.C. 20502

Dear Ms. Yellen:

On July 15, 1997, you presented the Administration's views on the economic and environment impact of the proposed international global climate change agreement before the Energy and Power Subcommittee. On behalf and the members of the Subcommittee, I thank you for your informative testimony. The hearing was indeed enlightening.

With the conclusion of the eighth meeting of the Ad Hoc Group on the Berlin Mandate, I see significant benefit to a round of follow-up questions to clarify, for the record, some of the issues that were raised during your testimony and the question and answer session that followed.

Attached is a list of questions for you to answer on behalf of the Administration. I ask that you work with the other relevant departments and agencies in developing responses and providing the relevant documentation where requested. Your responses will be entered into the record in the same manner as your original testimony. Your responses would be appreciated on or before September 22, 1997. If you have any questions, please call Cathy Van Way at (202) 225-2927.

Thank you for your continued attention and assistance to the matter.

Sincerely,

Dan Schaefer
Chairman
Energy and Power Subcommittee

Attachment

cc: The Honorable Tom Bliley, Chairman
The Honorable John Dingell, Ranking Member
The Honorable Ralph Hall, Ranking Member
Subcommittee on Energy and Power

SUBCOMMITTEE ON ENERGY AND POWER
HEARING ON GLOBAL CLIMATE CHANGE
FOLLOW-UP QUESTIONS

Interagency Analytical Team Report

1. Please identify each member of the Interagency Analytical Team (IAT) from the date of its inception to the present time, any other participants inside or outside the Administration, and specify their responsibilities.

2. When was the IAT formed and what were the IAT's instructions? Please provide any documentation regarding the formation of the IAT and its mission, responsibilities, membership or assignments.

3. Please indicate the total costs of the IAT's efforts and the share paid annually by each Department or Agency that was involved and please identify the source of the funds within each Department or Agency.

4. Is the IAT still in existence? If so, what are its current responsibilities?

5. Please provide a copy of all drafts of the IAT report in addition to the May 16 and 30, 1997 drafts, both earlier and later.

6. Please explain how the peer reviewers were selected? What instructions were those peer reviewers given? Please provide copies of any correspondence or instructions that were sent to the peer reviewers.

7. If the IAT effort is in fact a "failed" project as indicated in Administration testimony at the Subcommittee hearing how will the Administration determine the appropriate level of future international climate change commitments for Kyoto and later?

8. As late as last May when Dr. Ehrlich and others in the Administration held briefings on the then draft analysis and assessment there was no hint that the Administration considered this effort a failure and the models to be unreliable. What occurred since May that caused the Administration to apparently reach a different conclusion from that of Dr. Ehrlich?

9. The IAT draft analysis referred to three scenarios which resulted in costs of future climate commitments of approximately \$200, \$100 or \$50 per ton carbon tax equivalent. Has the Administration concluded that a \$200 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness? Has the Administration concluded that a \$100 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness? Has the Administration concluded that a \$50 per ton carbon tax equivalent cost will not harm the U.S. economy, jobs, and global competitiveness. Please provide the basis for any of the above conclusions. If the Administration does not support any of the above costs, what analysis or other information does the Administration intend to rely on to support a different amount?

10. Is the paper prepared by the IAT both an analysis and assessment? How does it relate to the "analysis and assessment" referred to in Paragraph 4 of the Berlin Mandate? Has the Ad Hoc Group on the Berlin Mandate provided an analysis and assessment as required by the Berlin Mandate?

11. The IAT draft states that the central policy modeled for the analysis "is aimed at reducing carbon and other greenhouse gas emissions by stabilizing them at 1990 levels" and that policy would be "announced in 2000 and its restrictions are phased in over a ten year period, so that the policy would take full effect in 2010." Reports in the media after the Denver Summit that President Clinton attended also referenced this date of 2010. In light of EIA's projection of emissions 22% above 1990 levels by 2010, is the Administration considering a target and timetable that calls for stabilization at 1990 levels by 2010?

12. The Administration frequently cites the 2000 economists who say they support controlling greenhouse gases. Their statement supports as the mechanism either carbon taxes or emission permits. In the past, the Administration has said it opposes the use of taxes. Is that still the Administration's position?

13. The IAT draft explains that these emission reductions to achieve stabilization would be through "issuing tradable permits at the earliest point of energy production or when imported into the U.S." and that the permits "are initially auctioned in a way that is revenue neutral: i.e., all revenues generated would be recycled through the economy." Would these revenues be deposited in the treasury as miscellaneous receipts under the Economy Acts? Would they then have to be recycled through changes in the tax laws or by appropriation? How would they be recycled?

14. Does the Administration believe that permit auctions are the equivalent of a new tax? If not, please explain.

15. The IAT draft states that "among fuels, demand for coal bears the brunt of greenhouse gas stabilization." What is the impact on the U.S. economy as a whole and on the relevant coal regions of this policy towards coal? What will be the job impact? Is the Administration adopting an anti-coal policy? How is this policy consistent with President's Clinton 1995 reply to Mr. Dingell that the U.S. will not agree to any protocol that harms our economy and jobs or our competitiveness?

Kyoto Agreement

16. How long after December 1997 does the Administration think it will take to obtain Senate advice and consent of any Kyoto agreement, to ratify that agreement, and to enact implementing legislation?

17. Which Agency or Department would be responsible for implementing the provisions of any agreement reached in Kyoto, including provision relating to joint implementation, emissions trading, and advancing Article 4.1?

18. What consideration has been given or plans made regarding passage of legislation necessary to implement any agreement reached in Kyoto?

U.S. Draft Protocol

19. Article 17.4 of the Framework Convention on Climate Change (FCCC) specifies that only "Parties to the Convention may be Parties to a protocol." However, there is no assurance that all or even a majority of the 167 Parties to the FCCC will deposit instruments of ratification, acceptance, approval or accession to any protocol adopted by the Parties by consensus or otherwise in Kyoto. What assurances does the U.S. now have that most, if not all, developing country Parties to the FCCC will become Parties to a Kyoto protocol? Why is it in the U.S. interest to agree, without such assurances, to a protocol that proposes to set legally binding post-2000 targets and timetables for Annex I Parties only and also imposes on the U.S. new and legally binding commitments to advance implementation of Article 4.1. of the FCCC, such as those prescribed in paragraph 1, 2, 3, and 4 of Article 5 of the U.S. draft protocol?

20. In a July 18, 1994 letter to the then House Committee on Energy and Commerce, [the State Department] said:

> We agree that there are substantial commitments beyond 2000 for all parties to the Framework Convention under Article 4. Article 4.1 (applicable to both developed and developing countries) contains commitments that are not limited by any specific timetable.

a) Is there any evidence to date that the U.S. is not abiding by these Article 4.1 commitments? If there is none, why should the U.S. voluntarily agree to reaffirm, as required by Article 5.1 of the June draft, to what the U.S. already agreed to when it ratified the FCCC in 1992?

b) Is the U.S. asserting that other Annex I Parties are not abiding by such commitments? If so, please identify those Parties.

21. Paragraph 2 of Article 5 of the U.S. draft Protocol mandates each Party to "strengthen its legal and institutional framework to advance implementation" of Article 4.1 commitments. What "framework" does the Administration have in mind? Does this suggest a new Federal or international agency or program? Would this be done through new legislation? If not, how would it be achieved in the U.S.?

22. Article 5.3 requires that each Party take "measures to facilitate investment in climate-friendly technologies." What "measures" does the Administration contemplate? How would they be implemented in the U.S.? What are their regulatory and budgetary implementations?

23. Article 16 of the draft provides that the Parties "shall adopt, by [2005], binding provisions so that all Parties have quantitative greenhouse gas emissions obligations and so that there

is a mechanism for automatic application of progressive greenhouse gas emissions obligations to Parties, based upon agreed criteria."

a) Does this mean that there could be a second protocol or another legal instrument by [2005] which is only 7 years after the December meeting in Kyoto?

b) Do the words "all Parties" in this Article mean that only the "Parties" to the U.S. draft protocol would be required to "adopt" by 2005 such an instrument? Unless developing country Parties to the FCCC, such as China, India and Brazil, become Parties to the Kyoto instrument (as proposed by the U.S.) prior to [2005], how does this Article address the issue of greenhouse gas emission growth by all non-Annex I Parties?

c) Could such a new instrument adopted by [2005] impose new and additional obligations on the U.S. beyond those proposed to be adopted in Kyoto? Why is that possibility a good result for the U.S. economy, trade, and competitiveness?

d) What "mechanism for automatic application of progressive greenhouse gas emissions obligations" does the Administration contemplate by this proposal? What are its implications for the U.S., including its sovereignty?

24. Article 16.1 of the Convention provides that "annexes shall be restricted to lists, forms, and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character." The U.S. draft protocol states, that it may not be "appropriate" to adopt the Article 16.1 Convention example. Please explain why. Does the U.S. support annexes that would be substantive and mandatory?

25. Article 9 of the U.S. draft provides that Parties "shall cooperate" in establishing a "long-term goal" regarding concentrations of gases. Article 10 calls for meetings at "regular intervals" to, among other things, "periodically review the adequacy" of the Protocol and Article 8 calls for periodic review of the Protocol and guidelines "in light of evolving scientific knowledge related to climate change." Article 2 already suggests a minimum of two budget periods. Article 16 tells the Parties to adopt "binding provisions" by [2005] for progressive "obligations." Does the State Department contemplate over the next several decades a continuing process of meetings of both the Protocol and Convention Parties annually and a series of IPCC assessments, special reports, and technical papers, leading to a series of protocols or other legal instruments that are likely to have significant economic impacts on the Parties and their people? Why is there a need for such frequent meetings and reviews?

26. The Global Climate Coalition sent a letter to the Department of State on February 14, 1997 raising a number of questions about the January 17, 1997 version of the U.S. draft protocol, particularly in regards to trading. The Administration has not yet responded to those questions. Please respond to them as part of your reply to this inquiry.

EU Bubble

27. The EU proposal made recently in Denver was developed last March as an EU "negotiating position for the ongoing negotiations on the Berlin Mandate" and it includes burden-sharing of a 10% reduction among EU members of the "overall emission reduction objective by the Community as a whole". This appears to be a form of differentiation, a concept the U.S. is not supporting. The existing FCCC bubble applicable to the EU presumably only covers policies and measures and, when adopted, it only covered the 12 Parties that were members of the EU in 1992. Does the U.S. understand that the EU is seeking, by its submissions and discussion with the U.S. delegation, to extend a form of the FCCC bubble to a protocol and another legal instrument that may be adopted in Kyoto, to expand the bubble to cover any target and timetable or financial obligations and not just policies and measures, and to expand the bubble to include all present and future members of the EU, such as countries from Central and Eastern Europe? Why is such an expanded bubble in the economic and competitive interests of the U.S.?

28. What is the potential impact of such an expanded EU bubble on the U.S. proposal for international emissions trading? Would it ensure that the EU would get the benefit of any emissions deficit derived from such Central and Eastern European Members and deprive the U.S., Japan, Australia and Canada of that deficit? Would the U.S. then have to rely primarily on Russia's emissions deficit in order to derive any of the benefits of trading?

29. Article 22.3 of the FCCC requires that regional economic integration organizations must declare the "extent of their competence" with regard to obligations under the FCCC. Does the U.S. believe that the EU has the competence to carry out legally binding targets and timetables and to enforce any differentiated targets for its members if they fail to achieve them?

30. The State Department's September 9, 1996 reply to the Committee stated that the U.S. did not agree to an "EU Bubble in Berlin" and that the U.S. delegation "successfully opposed including language in the Berlin Mandate which might have suggested that any country or group of countries could "bubble" in the post-2000 period." The reply then said:

> Clearly, the question of "bubbling" with respect to post-2000 commitments is complex, and one that will be closely scrutinized and carefully considered as negotiations progress. The Administration has consistently and continuously consulted with Congress, as well as with U.S. industry and U.S. NGOs, on all aspects of the negotiations concerning post-2000 commitments and will continue to do so.

The Administration has not yet held meaningful discussions with this Committee on the issue of the EU bubbling to "meet and target and timetables," its implications for the U.S., its merits, or its complexities. Given the fact that negotiations are just approaching a conclusion in Bonn and Kyoto, when do you plan to consult us on this aspect of the negotiations?

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EU Amendment to Convention

32. The EU has proposed an amendment to the Convention to provide for a vote to adopt all future protocols by three-fourths if all efforts at consensus are exhausted. The proposed amendment would appear to have a retroactive effect for Kyoto.

a) Under this proposal, is it possible that three-fourths of the FCCC Parties could vote to "adopt" any Protocol that imposed new obligations for Annex I and/or non-Annex I Parties and then decide not to deposit an instrument of ratification, etc.?

b) Does the U.S. support such an amendment to the Convention?

c) Has the U.S. position changed from its June 19, 1996 response to this Committee in regards to any of these matters? Would the Administration agree to a resolution of one of these matters, namely voting on a protocol, without a resolution of the financial and budget matters for both the Convention and all future protocols?

Emissions Trading

33. Does the Administration intend that any international emission trading program would apply in the same way and to the same extent to public and private entities internationally and in the U.S.? For example, would it apply to local governments and to defense or other agencies of each Party and to the emissions of such entities? What will be the impact on the U.S. Defense Department of an international, or, for the matter, a domestic, emissions trading program?

34. Greenhouse gases not covered by the Montreal Protocol are not pollutants within the meaning of the Clean Air Act and are not subject to the command and control provisions of the Act or other environmental laws. It is our understanding that although the U.S. has cited (in a September 9th reply to this Committee) authority to implement the Climate Change Action Plan with voluntary measures, the U.S. draft protocol, because it may call for mandatory measures, could not be given full effect in the U.S. without the enactment of new legislation by Congress. Do you share that understanding? Is the Administration considering a domestic emission trading legislative program patterned on the 1990 Clean Air Act?

General

35. I understand that the Administration has recently established the White House Climate Change Task Force, a Deputies Group and an Assistant Secretaries group. Please explain the role and purpose of each in regards to the development of the Administration's position and policies for the international negotiations for a protocol or another legal instrument in 1997 and for the development of implementing legislation in the U.S. Please identify the members of each group. Please provide any documents regarding the formation of these groups, their membership, mission, tasks, and/or assignments.

36. Please provide a table of all contracts, cooperative agreements, grants, and interagency agreements and any extensions thereof (hereinafter referred to as "agreements") entered into with any individual, agency, or public or private entity (foreign or domestic) by or through any federal Department or Agency, including the Departments of State, Commerce and Energy, and the Environmental Protection Agency, for the period beginning July 1, 1994 to the present that relates to, or includes, (directly or indirectly) climate change matters or issues of any kind. These should include matters relating to (a) domestic or international emission trading, including economic and other analysis of such trading, the administration and verification of such trading in the U.S. and elsewhere, (b) public outreach, general and specific public education, grass roots, community outreach, workshops, (c) transportation efficiency, alternative fuels, transportation generally, utilities, impact on pollutants like ozone and particulate matter, and (d) any legal analysis of these matters and of the Convention or of any statutes concerning climate change or trading. Each table should identify the date of the agreement, the agreement recipient, the amount of Federal funds, the term, including extensions, a brief description, the product and whether it is publicly available, and the status. Please include with each table the applicable "Statement of Work", including any revision thereof, for each such agreement.

Comments on Q&As

1. Insert period after "meetings".

3. Change "accumulate" to "account for".

7. Rewrite second sentence to read: "However, the IAT process was unsuccessful in providing a definitive answer on the economic effects to support the Administration's overall decision-making process." The range of results, as specified in the draft, are less of a concern (especially since the range is in part a function of the different trading, AEEI, and revenue recycling assumptions). Of more importance are the flaws raised by the peer reviewers. Note: Janet's testimony reads "the effort to develop a model or set of models that can give us a definitive answer as to the economic impacts of a given climate change policy is futile."

8. Rewrite second sentence to read: "As the work done by the IAT proceeded, the concerns raised by the peer reviewers called into question the benefits of continued IAT work on these economic models, given the many other competing claims on agency resources." Since the Committee already has the peer reviewers comments, there should not be any problem with referring to the peer reviewers.

9. Insert a comma after "situations" and delete "and models" at end of first sentence.

9. The range of the IAT results are incorrect. If the context is all permit prices for all runs reported, the highest permit price is $207 in the year 2020 with Markal Macro under the 1990 - 10% case. If the context is the highest 1990 permit price, then the highest permit price is $200 with DRI under the 1990 -10% case. The $145 value only applies to the 1990 in 2010 case.

9. The third sentence should be rewritten to read: "The IAT found that the estimates of the costs to the U.S. economy of a carbon emissions reduction policy depended on several factors, including targets and timetables, the use of market based incentives, technology assumptions, implementation of international emissions permit trading, and revenue recycling." There are probably other factors to list here as well, so let's talk about these.

10. Delete "wide" in first sentence.

11. Rewrite first sentence to read: "The IAT's analysis focused on a standard emissions target widely used in the academic literature for comparing model results."

12. Replace "or" with "and" in first sentence.

15. Rewrite answer based on revised answer 9 (permit price range, inserting factors affecting costs).

17. Do we want to list agencies, or just note that agency involvement will be a function of the characteristics of implementation?

18. Make "it" possessive in last sentence.

25. In the third sentence, is the statement following the dash necessary?

25. Do we want to state that a "full assessment of the costs and benefits of action would be taken prior to committing the United States to any new legal obligation" at the end of the first paragraph?

28. Should our discussion of international emissions trading be couched in more uncertainty, given that under some targets and timetables, we are actually a net seller of permits? Further, any JI might affect the conclusion drawn at the end of this answer.

Questions Unanswered:

19, 20, 23, 26, 30, 33, 34, 35, 36

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U.S. HOUSE OF REPRESENTATIVES

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October 20, 1998

The Honorable Janet L. Yellen
Chair, Council of Economic Advisers
Executive Office of the President
Old Executive Building, Room 314
17th and Pennsylvania Avenue, NW
Washington, DC 20500

Dear Dr. Yellen:

Paragraph 4 of Decision 1/CP.1 (the Berlin Mandate), adopted in March 1995 by the first Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC), called for an analysis and assessment of the economic impacts of any future protocol. However, none was made by the Parties to the UNFCCC, including the European Union (EU). In the United States, the Administration started an analysis prior to Kyoto, but it was never finished. Although there have been several analyses by the private sector, yours of last March and July, to my knowledge, was really the first by a Government. However, it was not comprehensive and it is still preliminary. It was designed to show that the economic impacts of complying with the Kyoto Protocol "are likely to be relatively modest". Clearly, it was not the broader, independent analysis of the type promised in 1995 but never delivered.

For these and other reasons, this Committee made a bipartisan request to the Administrator of the Energy Information Agency (EIA), for the enclosed report entitled "Impact of the Kyoto Protocol on U.S. Energy Markets and Economic Activity." The report's Preface explains that EIA arranged for nine experts, including William Nordhaus of Yale University and three prominent persons from Resources for the Future, to review and comment on versions of the report.

Nevertheless, I understand that some in the Administration, reportedly including the Secretary of Energy, are critical of the EIA report. In fact, Ms. Kathleen McGinty, Chair of the Council on Environmental Quality, is reported by the October 13, 1998 edition of *The Energy Daily* as disputing the EIA conclusions. She reportedly believes that "several key factors were conspicuously missing from EIA's analysis", including cost savings from international trading of greenhouse gas emissions which she says "has already begun" and is likely to exist on a "broad scale within a decade." The article quotes her as saying: "Some people try to make the point that this is an expensive endeavor and it isn't. Those who want to mislead will use this account."

That is rather harsh criticism of another Administration Agency that long ago was required by section 205(c) of the Department of Energy Organization Act and a 1974 law to provide independent analysis of this kind to Congress and its Committees. Nevertheless, I take this criticism seriously and I request your views and comments on the EIA report, taking into consideration your latest version of your March analysis, which, apparently, was not available to the EIA in preparing this report and those made by the private sector, particularly the analysis made by DRI for the United Mine Workers, and the enclosed article .

I understand from your analysis and your October 6, 1998 testimony before the House Commerce Committee, that your optimism, and that of Ms. McGinty, about the economic impact of the Protocol is largely based on expectations about the availability of so-called "flexible mechanisms" under Articles 6, 12, and 17 of the Kyoto Protocol which, of course, has not entered into force. Additionally, it has not been submitted to the Senate for advice and consent to ratification, nor has it been signed by the Administration on behalf of the Executive Branch.

The EIA report, on page xii, also takes note of these mechanisms and says that they "may reduce the cost of compliance in the United States." The EIA then adds:

> "Guidelines for those provisions, however, remain to be resolved at future negotiating meetings, and rules and guidelines for the accounting of emissions and sinks from activities related to agriculture, land use, and forestry activities must be developed. The specific guidelines may have a significant impact on the level of reductions from other sources that a country must undertake.
>
> *****
>
> "Because the exact rules that would govern the final implementation of the Protocol are not known with certainty, the specific reductions in energy-related emissions cannot be established."

As the State Department knows, the UNFCCC Secretariat prepared a proposed work plan and schedule relating to these mechanisms, other Protocol provisions, and some UNFCCC provisions for decision of the Parties at the eighth Subsidiary Body session last June (FCCC/SB/1998/1, April 9, 1998). However, there was no progress on that proposal. Instead, on June 12, 1998, Indonesia, speaking for the Group of 77 and China (G77/China), said:

> "The Group of 77 and China maintains that the mechanisms of the Kyoto Protocol have to proceed on a step-by-step basis, as the protocol has yet to enter into force, and that a common understanding has to be reached on the nature of these mechanisms. The study of methodological issues is a first step to be taken. All the mechanisms have to be examined on the basis of the principles of equity, sustainable development, the other principles, and the objective of the Convention. The issues relating to the Clean Development Mechanism (CDM) should be addressed first. The Group further maintains that domestic actions by the developed countries should be their primary means of greenhouse gas limitation and reduction, and that the overseas mechanisms should be supplemental to such domestic actions by developed countries for the purpose of meeting their quantified emissions limitation and reduction commitments."

It appears therefore that the aim of the developing countries is not only to avoid new commitments to reduce and limit their greenhouse gas emissions, but also to restrict the very flexibility mechanisms that you and Ms. McGinty are counting on to keep the Protocol costs "modest."

I understand that the UNFCCC Secretariat has prepared a new work plan proposal (FCCC/CP/1998/3, Sept. 9, 1998) for the fourth Conference of Parties (COP-4) in Buenos Aires. However, there is little to suggest that this document or something similar to it will be well received at COP-4. In fact, another group, the European Union Environment Ministers, who were reported to be mellowing in their views on some significant issues in regards to the Mechanisms, met earlier this month and issued on October 6th their "Community Strategy on Climate Change - Council Conclusions." It appears that, in reality, the EU Ministers who also want a work plan and schedule adopted at COP-4, have not changed their views, but have attempted to "re-package" them. They continue to press for "coordinated" policies and measures "amongst Annex I Parties", including taxes, "to achieve the targets of the Kyoto Protocol." As to the mechanisms, they concluded in paragraph 6:

> "The Council reaffirms that the flexible mechanisms defined in the Kyoto Protocol are supplemental to domestic action, which should provide the main means for meeting the commitments under Article 3 of the Protocol. The principles, modalities, rules and guidelines for the operation of the mechanisms have to ensure that they do not undermine domestic action or weaken these commitments. In this context, the Council also recalls that a concrete ceiling on the use of flexible mechanisms has to be defined to achieve these aims. It should be defined in quantitative and qualitative terms based on equitable criteria. The Council believes that the discussion between all Parties on the practical elaboration of the supplementarity principle has effectively to start at COP-4. This elaboration needs

> to constitute an essential element of the work plan to be adopted at Buenos Aires. The Council urges all Parties to co-operate with a view to reaching final agreement on this issue at COP-5."

It does not appear that the views and positions of the G-77/China and the EU coincide with those of New Zealand, in reply for the so-called "Umbrella Group" (which includes the U.S.) to questions by the G-77/China on the mechanisms. As the views and positions of these two large groups persist, it becomes more and more difficult to accept your rather rosy economic analysis of the Protocol's impacts on consumers, business, and jobs. There appears to be broader support among the UNFCCC Parties for the limitations sought by the EU than for the more flexible view urged by the U.S. through the Umbrella Group. It would seem therefore that the EIA's broader analysis which recognizes these uncertainties about future negotiations, and does not assume their availability without the limits urged by these groups, is more realistic, at least for now, than your analysis. Therefore, in commenting on the EIA report, please explain the basis for your optimism about these negotiations and indicate what your views will be if the EU and G77/China continue to press those views and positions over the next two years of the Administration's term.

Let me stress that I and many of my colleagues in Congress fully agree that the Administration must continue at all costs to continue to stand firm at COP-4 and thereafter against coordinated policies and measures and the interpretation of "supplemental" urged by these groups if the Administration intends to conform with S. Res. 98 which is your basic "bible".

In addition, I note that the incomplete version of the Administration's analysis that was started prior to Kyoto seemed to recognize that the Protocol is not self-executing in the U.S. (even with COP guidelines, rules, etc.) and that, if and when, it is ratified, implementing legislation would be needed. That document also contemplated an emission permit program and the recycling of rather large sums of money. The EIA report also mentions the likelihood of such legislation and recycling. However, your July analysis appears to omit any mention of the need for implementing legislation or discuss the possibility of a domestic emission trading proposal that would generate large sums of money which might be recycled, subject to the provision of 31 U.S.C. 3302 and other applicable provisions of law regarding the disposal of revenues. In your reply, I request that you address the issue of the need for implementing legislation, if and when, the Protocol is ratified and whether the pre-Kyoto analyses about domestic programs and revenue recycling are still under consideration. I recognize, of course, that such matters may only be in the early stages of consideration and, may never be developed if the Protocol is not submitted to the Senate for advice and consent to ratification during the remaining term of this Administration.

Finally, your response should identify any "key factors" that are missing in the EIA report. This should include a discussion of the international trade that Ms. McGinty says "has already begun," and an explanation as to how that trade relates to a Protocol that is not in force and is not yet complete in many important details. Specifically, what is that trade, what entities are involved, what are they trading, and for what purpose?

In responding to these matters, please consult, as necessary, with Ms. McGinty and others in the Executive Branch to ensure a full and complete response. Also, so that you may have the benefit of the results of the COP-4 session, I do not expect your comments about the EIA report and these related matters until November 30, 1998. However, if you cannot meet that deadline, please advice in writing and indicate when you will reply before the end of 1998.

Sincerely,

F. JAMES SENSENBRENNER, JR.
Chairman

Enclosure

FJS/hlw

cc: Secretary of State
Secretary of Energy Bill Richardson
The Honorable Kathleen A. McGinty, Chair, Council on Environmental Quality

STATEMENT OF DR. JANET YELLEN, CHAIR, COUNCIL OF ECONOMIC ADVISERS, WASHINGTON, D.C.

Dr. Yellen: Thank you very much, Mr. Chairman. I have a longer statement and would ask that it be included in the record.

Senator Craig: Without objection, it will be.

Dr. Yellen: I appreciate having this opportunity to discuss with you the economics of climate change and the administration's efforts to address this very significant environmental challenge.

As you know, the administration released a report last July entitled the Kyoto Protocol and the President's Policies to Address Climate Change: Administration Economic Analysis. In addition, since the Kyoto conference, a variety of research on the economics of Kyoto and especially on the economics of Kyoto's flexibility mechanisms has been undertaken, and what I would like to do is to provide a brief summary of the administration's economic analysis and review several of the key findings in the recent economic literature on climate change.

The administration's economic analysis found that the economic cost of attaining the targets and time tables specified in the Kyoto Protocol would be modest for the United States in aggregate and for typical households, assuming that effective mechanisms for international trading, joint implementation, and the clean development mechanism are established, and assuming also that the United States achieves meaningful participation by key developing countries.

An illustrative assessment using a model called the Second Generation Model that accounts for effective trading and developing country participation yields carbon permit price estimates ranging from $14 a ton to $23 a ton, and direct resource cost to the United States ranging from $7 billion to $12 billion per year.

Under the assumptions of the administration's analysis, permit prices in this $14 to $23 a ton range translate into energy price increases at the household level between 3 and 5 percent, but an increase of that magnitude would be roughly offset by the administration's electricity restructuring proposal.

Since December 1997, many economists have conducted and made available their analyses of the Kyoto Protocol. For example, the Stanford University Energy Modeling Forum, so-called EMF, a long-running model comparison exercise involving many of the leading climate and energy models, has coordinated a full-scale analysis of the Kyoto Protocol with 10 global models. In addition, the OECD, the Organization for Economic Cooperation and Development, has published the proceedings of an economic modeling workshop it sponsored this past fall.

The modeling results from the EMF and OECD I think provide very useful context for the administration's economic analysis.

First, the illustrative model used by the administration, the Second Generation Model of the Pacific Northwest National Laboratory, tends to fall in the middle of the range of the EMF models in terms of U.S. permit prices. Under Annex I trading, the Second Generation permit price is at the median of this set of models, and under full global trading, it is just below the median permit price.

Second, both modeling exercises found that the reduction in permit prices as trading expands from no trading at all to Annex I trading to full global trading, that that result is robust. The permit prices come down. On average, the EMF models found that Annex I trading would cut the U.S. permit price by 53 percent relative to a no trading scenario, while the OECD models found a 57 percent average price reduction. In full global trading, the permit price would be on average 80 percent lower than the no trading price.

Several EMF modeling teams have considered the impact of constraints on the opportunity to buy or sell emissions allowances in an international market. While the United States is unambiguously opposed to trading restrictions, several parties to the agreement have indicated support for some form of a trading constraint. Trading restrictions would generate no benefit for the global climate, while they would significantly increase the costs of achieving the Kyoto targets. In my written testimony, I describe two examples of trading constraints where the U.S. permit price would increase by up to four times higher than the unconstrained price with such caps on trading.

Most models used to evaluate the Kyoto Protocol only focus on carbon dioxide emissions. They do not account for the six types of greenhouse gases comprising the Kyoto targets and the opportunity to trade across gases.

However, recent work by a group of researchers at M.I.T. has found that including the opportunity to abate non-carbon dioxide greenhouse gas emissions and to promote carbon sinks reduces the cost to the United States by about 25 percent relative to a carbon-only approach and assuming no international trading, and other recent research finds similar results.

The EMF modeling indicates that economic and environmental benefits could accrue to some developing countries if they were to adopt emission targets. Setting a binding emission target would generate climate benefits by reducing global emissions below what they otherwise would have been.

In addition, if a developing country sets its target not too far below the business as usual emissions level, the participation of the country in a global trading system would produce economic benefits, or so-called gains from trade, for both the developing country and its trading partners such as the United States. Annex I countries and private firms in these countries who would purchase these emissions allowances in the world market would achieve their targets at lower cost than without the participation of developing countries.

The administration's overall conclusion is that the economic impact of the protocol will be modest under the conditions we have identified in our economic analysis, and the purpose of my testimony has been to summarize the analysis in our economic analysis document and to offer you a brief update on recent analytic efforts outside of the Government.

We do look forward to continuing to work with members of this committee and with other interested parties in analyzing the Kyoto Protocol and attempting to evaluate its net impacts.

Let me stop there and I welcome your questions.

[The prepared statement of Dr. Yellen follows:]

Senator Craig: Doctor, thank you very much.

Let me start with a couple of questions and then we will move to the rest of our Senators here.

The U.S. agreed to the Kyoto Protocol in December of 1997. Why did it take until July of 1998 to release the economic analysis?

Dr. Yellen: The administration has worked very hard, as the outside modeling community has. Once we have understood what the provisions would be that would be included in the Kyoto Protocol, in order to develop an analysis, this always involves using models as well as other tools of analysis.

Senator Craig: I appreciate that, but I would have thought that going into a final stage of negotiation, you would have had a variety of scenarios that would have been negotiable and you would have known the impact of those ultimate decisions or the parameters of those decisions prior to going into them. My point is I would have thought you would have had substantial economic analysis going in based on a variety of models, based on a final decision, so you could have said, that is the best choice versus the worst choice. It appears that that did not happen.

Dr. Yellen: No. Certainly the administration's negotiations were guided by economic analysis. There has been a great deal of economic analysis in the professional community, in the academic community, in think tanks. The administration had its own interagency analytic team that had reviewed that work and done some of its own work and was well aware of what existing literature suggested about economic impacts.

I would say the major lesson the administration learned from the body of work that was available prior to Kyoto was that this was something that we could do dumb, and if we did it dumb, we could end up with a high cost and large energy price impacts, as some of the studies that you have mentioned suggest, but that we could also do it smart, and if we did it smart, that would make an enormous difference in lowering the cost. And doing it smart meant that we had to go to Kyoto and bargain for flexibility mechanisms that would be critical in lowering the cost.

We have referred to them in our study as where, when, and what flexibility, and I believe we were very successful in Kyoto in ensuring that these flexibility mechanisms were incorporated in the treaty. Examples are the inclusion of six gases rather than simply carbon dioxide, the inclusion of sinks, important forms of what flexibility, international trading, emissions trading in Annex I, the clean development mechanism, joint implementation, a budget period that was later and longer than many other countries wanted. And that is what we took away from the analysis and successfully bargained for.

This is night and day. This makes all the difference in terms of different analysts when they tell you what do they think the costs will be, and I say $14 to $23 a ton and someone else says $300 or $400 a ton. These are huge differences, but there is a good reason for them. It has to do with these flexibility mechanisms primarily that were central to our negotiating strategy.

Senator Craig: I know that just prior to Kyoto this committee asked for the administration to come forward and share their analysis with us. That did not happen. We grew to believe that you did not have your act together or you did not have a body of analyses that you could present to us.

My last question would be to you, Doctor, this chart here demonstrates something that frustrates us all, and that is that, as you can see from the chart, the Council of Economic Advisers' model for the economic impact produces far different results than other studies. And in that light, the ultimate question I guess, because the right hand and the left hand of Government do not seem to be communicating or at least comparing notes, did the Council of Economic Advisers ask for input from the Energy Information Administration, and did it look at EIA's results? I mean, those are the obvious extremes.

Dr. Yellen: The administration certainly reviewed a wide range of models in preparing its own economic analysis and in understanding the economics prior to Kyoto.

Senator Craig: Now, this is post Kyoto, is it not? This is the analysis now that has now been done since there is a better understanding of what the protocol at least is that was negotiated.

Dr. Yellen: And is your question to me did we ask EIA post Kyoto to --

Senator Craig: Did you study EIA's model and its analysis, and why is there such disparity between what you present and what another part of our Government presents?

Dr. Yellen: We certainly have studied the EIA analysis and compared it with our own.

The first point I would make is that our own analysis results in a tenth of a percent rather than a hundredth of a percent, so that is a small error in the chart.

The Chairman: That adds what? A thread line to the green?

Dr. Yellen: A thread line.

Senator Craig: Thank you.

Dr. Yellen: But it is an order of magnitude off.

What your chart does is compare apples and oranges, and in trying to evaluate what the impact of Kyoto is on the U.S. economy, we have to compare apples with apples. When I look at your chart and I see DOE, the first huge line, minus 4.2 percent of GDP; the EIA analysis, it says underneath in parentheses, NT, no trading. And if you look at the right-hand side, administration/CEA, you see it says underneath, T for trading.

Now, just starting right there, that is an enormous, enormous difference. You recall that in my opening remarks I said that the Energy Modeling Forum which looked at 10 models, many of which are included in your chart, when looking at full global trading, which is what the administration would ideally like to achieve, Annex I trading is part of the agreement and we are actively engaged, as the Senate has insisted on, working with developing countries to try to convince them of the benefits to them of participating in this agreement and in particular voluntarily adopting targets.

Trading makes all the difference in the world, and the EMF found that that lowers costs by around 80 percent. That is a huge difference. That is why I say you are comparing here apples and oranges, and trading is very important.

Something else we took into account in our result that, to the best of my knowledge, none of the other studies on your chart took into account at all in evaluating the treaty, is the cost savings that can result from reducing not just carbon dioxide, but taking advantage of the six-gas feature of this model. We found that that can reduce costs by around 15 percent, and I mentioned in my remarks more recent studies that show even greater scope for that flexibility to focus on methane or other gases, to substitute reductions there for carbon dioxide to lower costs. Only our study reflects that.

And there are different kinds of trading, so we cannot assume that all of these bars on your chart that say T for trading are assuming the same scope of trading.

Senator Craig: I agree. Let us stop you there. Our other colleagues want to ask questions. I will ask Jay Hakes to compare the apples and the oranges because I do not think they are all apples and oranges. I would suggest that the Council of Economic Advisers made very optimistic assumptions. EIA did not.

I will also suggest that you are assuming everybody will trade, and yet the developing nations are left out of it, although they are the ones that will have that huge stockpile of credits to trade. So, you are just making assumptions that everybody gets in the trading game.

Well, let us take China. They would be one who we would want in that scenario and my guess is you plugged in that scenario in the trading game, and we are assuming that that happens. I do not think you can make those assumptions. They have already said they would not be players. I guess that is my concern.

Let me --

Dr. Yellen: Well --

Senator Craig: No, no. Let us stop there and let us move to Senator Bingaman. If he wishes to follow up on that question, he may, but I want to spread the riches here. Senator?

Senator Bingaman: Why do you not go ahead and respond to anything that was just said? And then I will ask you a question.

Dr. Yellen: We have certainly heard the Senate loud and clear that it is important and essential to have meaningful developing country participation. And even without the Senate's telling us their view on that, it is something that we recognize on our own, that clearly this is a global problem and it requires a global solution.

We are working in many different ways with key developing countries to convince them of the importance of participating in this treaty. We understand that that is something we must do in order to ask the Senate to ratify this treaty.

Now, with respect to a country like China, certainly China has not said that they intend to take on a target, but I believe in discussing this issue with China, we can legitimately point in talks with them to gains they can expect to get from voluntarily taking on a target and reducing their emissions.

If China were to voluntarily take on a target with some reduction from its own business as usual path, there would be worldwide environmental gains. And in addition, what China would find is that, in effect, it would have the ability to develop a new export industry. What would it export? China is a country where emissions abatement can be done at extraordinarily low cost because China is highly energy inefficient and it is growing rapidly and putting in place a great deal of new energy investments. That means it has enormous opportunities to abate emissions at low cost.

Why do I call that an export industry? Because in return for taking actions that are low cost to abate emissions with a target in place, China would have the opportunity to sell emissions permits, its export good in effect, in world markets. That is a win-win. That is good for us because it means we get an environmental job done at lower cost than we would face in the short term to do it all domestically, and it is a win for China in many dimensions, not just financially and environmentally, but also because in China even local air pollution is a major, major concern. And from a country like China's perspective, it might be that even without the opportunity to sell emissions credits, it would make sense even without concern about greenhouse gases simply from the perspective of local air pollution which is a major health problem, and public finance, a public finance tax perspective, that it would make sense to raise energy prices and take other steps to improve energy efficiency.

So, I do not believe it it hopeless to discuss with countries like China or India their participation in a treaty like this, and that is what we are doing actively on many different fronts.

Senator Bingaman: Well, thank you for your explanation.

I wanted to ask about -- recognizing that you have these flexibility mechanisms and they will help tremendously, there is still going to be a significant cost for our coal industry and for other energy intensive sectors of our economy and the communities that depend upon them and the workers. Have you done estimates as to the specific dislocation costs by region that are involved with some of these industries?

Dr. Yellen: We have not done detailed specific region-by-region estimates. Certainly we are concerned. There is no doubt the administration is concerned about impacts on energy intensive sectors and on coal in particular which, I think it is fair to say, is the industry that would be most affected by this policy.

But in thinking about the impact even on a sector like coal that would be most affected, we have to start from the impact on energy prices. And if our analysis is right, that under our diplomatic strategy we can be looking at energy price impacts that are very modest, then for example, for coal our work suggests that coal output in this period would roughly level off rather than increase slightly, which is in the baseline.

Coal is an industry where employment has been on a very sharp down trend. Why? Not because of Kyoto or climate, but because productivity increases have been utterly enormous in coal. We have had more coal output with fewer workers, and so this is an industry that with or without Kyoto has been faced with job loss, which is serious, that we're concerned with.

Our analysis suggests that with these modest price impacts, there would not be much further additional burden on the coal industry as a consequence of this, but of course, we would be concerned about any industry that saw a job loss, particularly coal, that one can readily identify as a target, and we would stand ready and do stand ready to work to try to mitigate the impact. We have had some discussions with unions and look forward to working on plans for assistance for parties that are unusually affected.

Senator Bingaman: Let me also ask about these revenues that some of these recycling efforts might generate. For example, if you were to use the revenues from selling permits to finance tax cuts, is that something that has been considered, tax cuts on the particular industries most severely impacted? Is that something that has been considered?

Dr. Yellen: Well, that is a very good question. As you know, in the President's proposal a system for trading permits would only be instituted in 2008, and while the administration or the President has proposed that we implement the Kyoto targets in the binding period through a system of emission permits, we have really made no decisions and had very little discussion about the form that that would take.

There are a number of things that could be done in the case of sulfur dioxide where we do have a trading system in effect that has been very useful and effective. The permits were given to electric utilities based on their previous emissions. That did not generate revenue.

There has been a lot of literature about the possibility of, for example, auctioning some or all of the permits, in which case the Government would end up with a good deal of revenue potentially that could be used to lower other taxes. And since taxes are distortionary, whether it is taxes affecting particular affected industries or payroll taxes or corporate taxes, efficiencies could be generated potentially through revenue recycling, as you mentioned. But that is not something that we have specifically looked at at this stage, but there is economics literature on that topic.

Senator Bingaman: Thank you very much.

I will stop with that, Mr. Chairman.

Senator Craig: Thank you very much, Senator Bingaman.

Let me turn to Senator Craig Thomas. Senator?

Senator Thomas: You mentioned China. Has China agreed to participate at all in Kyoto?

Dr. Yellen: No, China has not.

Senator Thomas: Why then do you put so much emphasis on the values of dealing with China?

Dr. Yellen: China is clearly a very important country that --

Senator Thomas: That is not the question. I know it is important.

Have you been there?

Dr. Yellen: Yes, I have.

Senator Thomas: And you think they are going to move to do something to trade and be involved.

Dr. Yellen: I believe that we can have and are having continuing discussions with China. I have discussed on several occasions climate change with Chinese officials and attempted to make the points that I made earlier that --

Senator Thomas: I understand. I understand that.

Dr. Yellen: -- there can be benefits.

Senator Thomas: I understand that. The fact is I happen to be chairman of the subcommittee on China. I am going there next week, fairly familiar with it, and it puzzles me that you would put as much emphasis on doing something with China as you do to justify your position when they have not indicated any willingness to do that.

Why is there such a difference in the ideas? Some say the protocol would range from 4 percent of GDP, $350 a ton, and I think you say one-tenth of 1 percent and $14. Now, I do not want you to go into a huge amount of academic conversation, please. Just tell me there is that sort of difference.

Dr. Yellen: The opportunity to engage in international trading either in Annex I, which is clearly embodied in the treaty. Annex I trading alone of permits.

Senator Thomas: Why do the others not consider that? Do they consider that the same as you? I mean, you are not the only academic or scientific person dealing with this.

Dr. Yellen: I reported to you in my testimony this morning a whole variety of results, 10 models in the Stanford Energy Modeling Forum, which is a model comparison project, which qualitatively, reach identical results to the administration, namely, Annex I trading --

Senator Thomas: Why are there such differences in scientific reports?

Dr. Yellen: My reading of scientific reports is that there is enormous consensus on a key point, which is flexibility mechanisms, particularly international trading, dramatically lower costs. Annex I trading alone probably lowers costs by more than 50 percent, and the extension to include key developing countries results in a very large further reduction. There is consensus on that.

Senator Thomas: Either I am not communicating or something. I am saying why does not everyone who is doing a scientific report at least start on the same basis? You act as if there is a totally different study going on of all different origins.

Dr. Yellen: But there are different studies and you can see that in your chart. And the studies that tell you this is going to cost $350 or $400 a ton are not making the same assumptions. They are not modeling Kyoto. They are modeling a different agreement, and they are modeling an implementation of these targets that is not what is involved in the Kyoto agreement or the administration's policies.

Senator Thomas: So, they are wrong. They are wrong and you are right.

Dr. Yellen: It is a question -- there are differences across models in answering any given question, which is why we want to look at a number of models. But we have to compare apples and apples, and these high numbers are assuming we do it dumb, and as I said, the administration's position is we cannot do it dumb. We have to do it smart.

Senator Thomas: Absolutely. I do not know of anybody who is suggesting they are doing it dumb, do you? Do you know of anyone who says I have a dumb report?

Dr. Yellen: I think that --

Senator Thomas: You think so. You do not need to answer that. I just -- I get impatient with this let us do it right.

Do you know of anybody who wants to do it wrong? Of course, not. Everyone has different views.

Tell me a little about -- you mentioned the administration's electric reregulation recommendations. What are they?

Dr. Yellen: Well, the administration introduced a bill --

Senator Thomas: Last year.

Dr. Yellen: -- in the last session of Congress.

Senator Thomas: Have not done so this year.

Dr. Yellen: My understanding is that one will be introduced very shortly.

Senator Thomas: Well, I hope so because many of us are interested in that.

Dr. Yellen: Of course.

Senator Thomas: And the administration -- we had to pry it out of them last year, as you know, and it took a very long time to get one out.

And is that going to be key to what you are talking about?

Dr. Yellen: Well, it is certainly something that increased competition would lower energy prices, lower electricity prices.

Senator Thomas: With coal and gas.

Dr. Yellen: Well, I think studies last year that were introduced suggested about a 10 percent decline in electricity prices, and that would be for the typical household roughly sufficient to offset --

Senator Thomas: What about the Ag report that just came out that indicated for I think 18 States the costs would be higher under reregulation?

Dr. Yellen: I am sorry. I am not familiar with that report.

Senator Thomas: It is part of the administration I think also.

What I am trying to say -- and I am very confused and frustrated because you always talk about the administration. I thought Energy was part of the administration.

Dr. Yellen: It is.

Senator Thomas: I kind of thought Agriculture was part of the administration, and yet it seems as if you are in two different worlds. And when you have gone, I am not sure we are going to understand much more about where the administration stands than we did before you came.

Dr. Yellen: Well, I understand your interest in agriculture and I regret that I am not an expert in agriculture. I would be happy to make sure the administration --

Senator Thomas: They are talking about residences in relatively low population States.

But that is another -- my point is this, Doctor. It just seems to me that the administration that you talk about so much ought to kind of come together with a point of view that brings together all the expertise from the various parts, but you seem to have one, I might say, fairly academic view. These other folks seem to come in with other views. They are totally different, and you say you are representing the administration. I am confused.

Dr. Yellen: Well, the report that we submitted to you and that we put out last summer represents the views not just of the Council of Economic Advisers, but of the administration. That is the administration position.

Senator Thomas: We will say to Energy your report does not matter because the administration is for this.

Dr. Yellen: Well, with respect to the impact of Kyoto, the document that we submitted to you is an interagency document that represents the administration's views.

Senator Thomas: I see.

Just one final thing. You talk about the reduction. Do you know what the spot market for coal is now in Wyoming?

Dr. Yellen: I do not know today.

Senator Thomas: Would you guess? Would you guess?

Dr. Yellen: I do not want to guess. You tell me.

Senator Thomas: It is less than a six-pack of beer I can tell you that, and it is probably around $4. So, the suggestion that you are going to reduce the cost of coal is pretty unlikely.

So, thank you very much for being here. We have a lot of work to do.

The Chairman [resumes Chair]: Thank you, Senator Thomas.

I am not sure, but I believe Senator Landrieu is next.

Senator Landrieu: Just a brief statement.

The Chairman: I would encourage my colleagues. It is 10 minutes to 11:00 and we have a whole other panel to hear from.

Senator Landrieu: I am very interested in hearing the second panel, so I am going to be very brief.

But I want to say that I am encouraged by some of the things that you have brought out, and in reviewing your testimony. I really appreciate our efforts to move to a smart way of dealing with this. I do not think any model is necessarily dumb at all, but they are different views. And I hope the administration will work to bring this more together. But I am very impressed with some of the things you brought up.

I have got a lot of questions about how you pitch to China and India more specifically, but I will not take the time for that.

But I am interested to hear the second panel, but thank you for your work.

Dr. Yellen: Thank you, Senator Landrieu.

Senator Craig [presiding]: Well, the chairman has just stepped out and we do want to get to our next panelists.

Dr. Yellen, let me thank you again very much. Let me say that my only closing comment to you would be that your reference or refrain of modest impact -- I would concur with you if international trading could become an absolute fact, if joint implementation were obviously a fact, if efficient, clean development mechanisms, a U.N. bureaucracy, became lean and efficient and operated in a functional way, and if we could develop a meaningful developing country participation.

Those are all phenomenal ifs out there that are not on the table today, and I would not at all suggest you should not work and are not working in the direction of bringing those there. But when we here in the Congress have to analyze and develop current policy for future activities, it is very difficult to make those kinds of assumptions.

So, I appreciate your testimony here today. I think the whole committee does. We will stay in tune with your efforts and we hope you will with ours. Thank you very much.

Dr. Yellen: Thank you. We will work towards those goals.

Senator Craig: Absolutely. Thank you.

Dr. Yellen: Thank you.

Senator Craig: If our next panel would come forward please: Dr. Jay Hakes, Ms. Mary Novak, Dr. Margo Thorning, and Cecil Roberts.

Those charts. Wow. They are the biggest ones I have seen yet.

On behalf of the committee, let me thank all of you for being here this morning, and let us start with the Honorable Jay Hakes, Administrator, Energy Information Administration, U.S. Department of Energy, Washington. Welcome. Please proceed, Jay.

cc: Joe Aldy

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL OF ECONOMIC ADVISERS

JUNE 9, 1999

TO: BRADY NEWBY
Small Business Committee
U.S. House of Representatives

FROM: AUDREY CHOI
Chief of Staff
Council of Economic Advisers

Attached is the edited transcript of Dr. Yellen's April 29 testimony before the Small Business Committee.

Please call me on (202) 395-5084 if you have any questions.

Attachment

JAMES M. TALENT, MISSOURI
CHAIRMAN

NYDIA M. VELÁZQUEZ, NEW YORK

Congress of the United States
House of Representatives
106th Congress
Committee on Small Business
2361 Rayburn House Office Building
Washington, DC 20515-6515

May 24, 1999

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Dear Witness:

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[Ms. Velazquez' statement may be found in the appendix.]

Chairman TALENT. I thank the gentlelady for her comments.

And I'll just say that while I have been critical, I certainly haven't been idle.

[Laughter.]

I appreciate the gentlelady's comments. We'll go to Dr. Yellen.

Dr. Yellen, I gave up my opening statement, which for a member of Congress and the chairman of a committee, is a great sacrifice because I understand that you have to leave. You're on a time schedule. You need to leave about 10:30 or so.

Dr. YELLEN. Yes, I do.

Chairman TALENT. So, in view of my sacrifice, I hope you will be conscientious in summarizing your testimony for us and keeping it brief.

Because assuming members come, I want them to have the opportunity to ask you questions.

Thank you. You can proceed.

STATEMENT OF DR. JANET YELLEN

CHAIR, COUNCIL OF ECONOMIC ADVISERS

Dr. YELLEN. Thank you, Mr. Chairman. I appreciate your accommodating my schedule this morning. I'll try to be brief and I'd ask that my full testimony be included in the record.

Chairman TALENT. Without objection.

Dr. YELLEN. I appreciate having this opportunity to discuss with you the economics of climate change and the Administration's efforts to address this significant environmental challenge.

As you mentioned, the Administration released a report last July entitled, The Kyoto Protocol and the President's Policies to Address Climate Change.

In addition, since the Kyoto Conference, a variety of research on the economics of Kyoto, and especially on the economics of Kyoto's flexibility mechanisms, has been undertaken.

Today, I'll provide a brief summary of the Administration's economic analysis and review several of the key findings in the recent economic literature on climate change.

The Administration's economic analysis found that the economic cost of attaining targets and timetables specified in the Kyoto Protocol will be modest for the United States in aggregate and for typical households, assuming that effective mechanisms for international trading, joint implementation, and the clean development mechanism are established, and also assuming that the United States achieves meaningful participation by key developing countries.

An illustrative assessment using the second generation model that accounts for effective trading and developing country participation yields permit price estimates ranging between $14 and $23 a ton, and direct resource costs to the United States between $7 billion and $12 billion per year.

Under the assumptions of the Administration's analysis, permit prices in this range translate into energy price increases at the household level between three and five percent, but this would be roughly offset by the Administration's electricity restructuring proposal. ~~And~~ I'd be happy to further discuss these results during the questioning period.

Since December, 1997, many economists have conducted and made available their analyses of the Kyoto Protocol.

For example, the Stanford University Energy Modeling Forum, the so-called EMF, which is a long-running model comparison exercise involving many of the leading climate and energy models, ~~they have~~ has coordinated full-scale analyses of the Kyoto Protocol with 12 global models.

Further, the Organization for Economic Cooperation and Development, the OECD, has published the proceedings of the Economic Modeling Workshop it sponsored last fall. The modeling results from the EMF and OECD provide very useful context for the Administration's economic analysis.

First, the illustrative model used by the Administration, the Second Generation Model of the Pacific Northwest National Laboratory, tends to fall in the middle of the range of the EMF models in terms of U.S. permit prices.

Under Annex-1 trading, the SGM permit price is at the median of this set of models and under full global trading, it is just below the median permit price.

Second, both modeling exercises found that the reduction in permit prices as trading expands from no trading to Annex-1 trading to full global trading, is robust.

On average, the EMF models found that Annex-1 trading would cut the U.S. permit price by 60 percent relative to a no-trading scenario, while the OECD models found ~~to~~ a 57 percent average price reduction.

In full global trading, the permit price would be, on average, 81 percent lower than the no-trading price.

Several EMF modeling teams have considered the impact of constraints on the opportunity to buy or sell emissions allowances in the international market. While the United States is unambiguously opposed to trading restrictions, several parties to the agreement have indicated support for some form of a trading constraint ~~restraint.~~ Trading restrictions would generate no benefit for the global climate while they could significantly increase the costs of achieving the Kyoto targets.

In my written testimony, I describe two examples of trading constraints where the U.S. permit price would increase by up to four times that of ~~higher than~~ the unconstrained price.

Chairman TALENT. Just yield for just a second.

The European Union, for example, wants caps on what you can buy, right, under this kind of thing.?

Dr. YELLEN. That's correct.

Chairman TALENT. So that that's an example of one of the countries that wanted restrictions.

Dr. YELLEN. Precisely.

Chairman TALENT. Thank you. I'm sorry.

Dr. YELLEN. Absolutely. That's exactly what I had in mind.

Most models used to evaluate the Kyoto Protocol only focus on carbon dioxide emissions and do not account for the six types of greenhouse gases comprising Kyoto Targets and the opportunity to trade across gases.

However, recent work by a group a researchers at MIT has found that including the opportunity to abate noncarbon dioxide greenhouse gas emissions and promote carbon sinks reduces the cost to the United States by about 25 percent relative to a carbon dioxide only approach.

Other recent research has found similar results.

The EMF modeling indicates that economic and environmental benefits could accrue ~~to~~ some developing countries if they adopt emissions targets. Setting a binding emissions target would generate climate benefits by reducing global emissions below what they otherwise would have been.

In addition, if the target is set not too far below the business-as-usual emissions level, the participation of the country in the global trading system would produce economic benefits or gains from trade for both the developing country and its trading partners, such as the United States.

Annex-1 countries and private firms in these countries who would purchase these emissions allowances in the world market would achieve their targets at lower cost than without the participation of the developing countries.

The Administration's overall conclusion is that the economic impact of the protocol would be modest under the conditions we've identified in our economic analysis. And the purpose of my testimony has been to summarize the analysis we presented in the Administration economic analysis on climate change and to provide a brief update on recent analytic efforts outside the government.

I look forward to continuing to work with members of this Committee and other interested parties in further analyzing the Kyoto Protocol and evaluating the economic impacts of reducing greenhouse gas emissions.

It is my hope that economic analysis can continue to play a key role in designing policies in this area.

Let me stop there and I will welcome your questions.

[Dr. Yellen's statement may be found in the appendix.]

Chairman TALENT. Thank you, Dr. Yellen, for summarizing your testimony.

I have questions in a lot of areas. But I think, given your short timeframe and the faithful attendance of my friends on the Democratic side of the aisle, and I congratulate you for being here. And we're going to try and speak to some of those on our side of the aisle about whether they might want to emulate your model.

[Laughter.]

I certainly want these members to have a chance to ask questions.

So I think I'll go into probably the area of my prime concern, which is this whole issue of meaningful participation.

This is the analysis you referred to, right? And this is the Administration's analysis.

Dr. YELLEN. Let's see.

Chairman TALENT. The Kyoto Protocol and the President's Policies. Okay. You have it in a different binder.

I want to be certain about what it was that we were dealing with.

And as I understand it, one of the assumptions you make -- I'm going to try and short-circuit some of this, again, in view of the time constraints.

In reaching your conclusions, one of the assumptions you make is that we can secure meaningful participation, and I'll put quotes around that because that's something I want to go into, by key developing countries. Other things also, the clean development mechanism, joint implementation, the joint trading agreement.

But for the purpose of my questions, I'm going to talk mostly about the assumption that we'll get meaningful participation by key developing countries.

That's one of the assumptions underlying your analysis. Isn't that correct?

Dr. YELLEN. It is one of the assumptions underlying the numerical results that I indicated to you of permanent prices in the $14 to $23 range.

Chairman TALENT. Okay. Now let's go into which are the key developing countries.

What are some of the key developing countries?

Dr. YELLEN. Well, that remains to be determined in negotiations.

In the context of our model, we had to use the constraints of the Second Generation Model, which only enables us to -- ~~it looks only at~~ look at a number of countries in the developing country bloc.

Particularly, it enabled us to look at China, India, Mexico and Korea.

Chairman TALENT. Right.

Dr. YELLEN. And those were ones that we identified. But in terms of our negotiations, we would have to see where things go.

Chairman TALENT. There could be others. But those are four of the key developing countries -- China, Korea, India and Mexico.

That's what I understood as well.

So we're not talking about just extremely poor countries of subSaharan Africa or some very poor countries in Asia. We're talking about developing countries or countries that some might consider to be first-world countries, like Korea.

But China, Korea, India and Mexico are examples of key developing countries.

Dr. YELLEN. Well, in our analysis.

Chairman TALENT. Right. I understand.

And as I understand it, the reasons why meaningful participation is necessary is -- and I get this from your testimony, so let me go through it and make sure I understand it.

One of them is just as simple as a matter of science and environmental science. We can't do it without them. In other words, even if we restrict our production of greenhouse gases, if they have unlimited increases, since this is a global problem, we've achieved nothing.

So probably the number-one reason is that we can't do it scientifically without them.

Is that right?

Dr. YELLEN. In the long run, that's certainly true.

Chairman TALENT. And also, it's key to our ability to comply with our own targeted emission restrictions at a reasonable cost because your analysis depends on this international trading system where they're able to sell us credits because they've reduced below ~~they're~~ their targeted emission levels.

That's another reason, isn't it, to make this international trading scheme work?

Dr. YELLEN. Well, I'd like to clarify that.

Our analysis and the results that I describe that show permit prices in the $14 to $23 range, do assume participation by key countries and their inclusion in an international emissions trading system.

And that certainly is critical to generating prices as low as I mentioned. However, what my testimony and outside research points out is that even without the participation of any nonAnnex-1 countries, that ~~Annex~~ international trading that is already included in the agreement by Annex-1 countries alone, results in a very, very substantial reduction in costs. ~~This~~ The EMF exercise 12 models that I report in my testimony, showed a 60-percent reduction in costs that comes from Annex-1 trading --

Chairman TALENT. Which are essentially the European countries. That's correct, right? And I recall reading that. So you get a substantial reduction even if only the European countries are participating.

Dr. YELLEN. That's right. That also includes Russia and the former Soviet Union. So, specifically, in the context of the model results that we report in this analysis, even if we had trading only in the Annex-1 countries, or under an umbrella that excluded the European Union, there we would be looking at permit prices perhaps in the $30 to $55 range.

Chairman TALENT. Right.

Dr. YELLEN. Which I would hesitate to label as modest, but still is very much lower than the kinds of --

Chairman TALENT. I'll modify what I said. We can't get down to -- I think it's like a 90-percent reduction we can get if we have the key developing countries participating.

Dr. YELLEN. That's right.

Chairman TALENT. And another reason is, you've testified before, is just the fairness. This is a global problem and the burden should be shared globally.

So those are three reasons why we need meaningful participation by key developing countries. Am I correct?

Dr. YELLEN. Yes, although I think it's fair to say that given differences in per-capita income levels, the burdens should not be equally shared at this time.

The developing countries have, countries like China and India have very much lower levels of per-capita income and I think different burdens at the present time given those different income levels ~~seem appropriate in handling these burdens.~~

Chairman TALENT. Let's get to that because we've talked about which are the key developing countries and why meaningful participation is important.

Let's discuss what meaningful participation is.

I'll preface that by saying I don't see it in the protocol. I see the international trading in the protocol, the clean development mechanism, the joint implementation in the protocol, but not the meaningful participation. And that's because that's not yet a globally- accepted term, is it?

Dr. YELLEN. That's right.

Chairman TALENT. That's our term.

Dr. YELLEN. Yes. The Senate has made it very clear and for the reasons you've given, it's clear to us, and to the Administration as well, that it is important to achieve meaningful developing country participation.

And that is something that the Administration continues to work on very hard in multi-lateral, bi-lateral and other fora.

Chairman TALENT. So what is meaningful participation? How do we define that?

Dr. YELLEN. I don't want to offer at this time a definition of what it means on behalf of the Administration.

In the context of the model results that underlie the Administration's economic analysis for a modeling purpose, we have taken it to mean that key developing countries take on binding targets close to their business-as-usual levels.

And what that enables them to do is to participate in international emissions trading.

Those countries are low-cost abaters and they do a lot of abatement. They sell the United States and other developed countries emissions permits. And there are gains for us in being able to carry out our job at lower expense.

There are gains for those countries.

And essentially, that's what it means.

Chairman TALENT. Now we're getting to the guts of one of my concerns that you started to refer to before.

We've agreed in this that we're going to reduce our emissions to seven percent below 1990 levels. And your economic analysis assumes that these key developing countries will be able to go on with business as usual.

In other words, they will be able to produce as many greenhouse gases, as much tonnage of greenhouse gases as they would if there wasn't a Kyoto Protocol.

It doesn't sound like a very good deal for us.

Dr. YELLEN. Well, as a benchmark, it seems to me that if we could convince developing countries -- remember we're in the first stage of what will be a very long-term task of abating emissions. This is the first commitment period. It certainly can't be the last if we're going to succeed in this task.

But to ask developing countries in the early stages to take on targets that are somewhat below their business-as-usual paths, would produce environmental gains relative to the Kyoto treaty, so we would have greater reductions in greenhouse gases than those agreed to by the Annex-1 countries. ~~and~~ In addition there would be gains all around in the sense that it would be less expensive for us to carry out our commitments and there would also be gains, economic gains to those countries from abating their emissions and they would abate them further than they would be required to because for them there would be a clear economic gain given they are growing rapidly. ~~they~~ These developing countries do have easy, cheap opportunities as they grow to put into place energy-efficient investments, and they would have a clear incentive to undertake greater reductions than they were obliged to do ~~so~~ in those targets.

Chairman TALENT. It still seems like a lousy deal to me. We could get, I guess, a better deal than that.

You're assuming this for the purposes of the analysis. But I guess it's possible that we can get a better deal.

Dr. YELLEN. Well, we are engaged in discussions with developing countries and trying to convince them and educate them ~~that this is~~ that their participation is important and that they can participate in a way that will not require them to sacrifice their economic growth.

Chairman TALENT. I'm concerned about us getting a worse deal. And I don't think our education plan is working.

Here's a letter from the Indian ambassador, the last sentence of which, and I can show it to you if you want, says, India is not engaged in bilateral discussions on emissions with any country, nor do we support efforts to obtain pledges which go beyond the convention and also the Kyoto Protocol which don't contain meaningful participation at this point.

In fact, the framework convention authorized developing countries to raise their emissions to meet their social and developmental concerns.

And that's dated April 13th, 1999.

I'm really concerned that we may not even get business as usual.

Are you?

Dr. YELLEN. Well, clearly, this is an effort that's important for us to undertake.

I don't want to discuss the state of our diplomatic negotiations. I think it's more important for my colleagues from the State Department to discuss the state of diplomacy in this area.

I would say simply from my own standpoint, I have been myself involved in a number of discussions with officials from key developing countries, including China. And while official positions may not have changed, I think there is a growing understanding among developing countries that this can be a win-win deal in which they achieve some benefits and also help in combating the problem of growing greenhouse gas emissions.

There's no doubt that we have substantial --

Chairman TALENT. Dr. Yellen, I'm going to say if we're at seven percent below 1990 levels and they're at business as usual, it doesn't sound like a win-win.

It sounds like we lose, they win.

Dr. YELLEN. Well --

Chairman TALENT. I mean, why should we have to bear all the burdens. Because we happen to be a developed economy? We happen to have produced a lot?

We happen, for example, to have won the Second World War along with our allies, so that a lot of these countries -- Korea wouldn't be a free country if it wasn't for the production that we've had and what we did for them.

So why are we conceding as part of our analysis that they're going to be able to operate at business-as-usual levels?

That's not even environmentally sound.

Dr. YELLEN. In ~~The purpose of~~ the analysis, we have taken that as a benchmark and clearly indicated it.

It seems to me that in discussions with developing countries, we should be looking for some reductions below that. That would result in the clear environmental benefit beyond what was negotiated at Kyoto.

I think it seems clear to me, and I think the Byrd-Hagel resolution recognizes, that a one-size-fits-all approach for countries at very different states of development is not necessarily called for.

Chairman TALENT. All right. Well, let me leave that and get into how the trading system would work, assuming we get the participation. I guess this would be the case even if we don't get the key developing countries and we have the Annex-1 countries.

As I understand it, if I had a manufacturer in my district, big or small -- I was going to use Chrysler because we have a plant, or Ford. But it would actually apply to small businesses, too.

And he wants to expand, he or she. That person would have to get a credit under this trading system. And they would buy that from something like a foreign exchange.

Is that what you would anticipate happening?

Dr. YELLEN. Well, to know what a Ford or a General Motors or a small business would have to do, we would have to have greater specificity about how a domestic permit system would work.

That has not yet been discussed.

It's conceivable that a permit system could work in a way that would require sellers of fossil fuels to obtain permits.

For example, to sell a ton of coal, you would have to have a permit. Or to sell or import a barrel of oil would require a permit, in which case General Motors, Ford, and the typical small business would face no requirements to ever have permits for anything at all.

Those requirements would have been leveled upstream.

But it is also possible that the requirements could be leveled downstream for holding permits so that it is conceivable in some designs that a Ford or a GM would need permits for emissions. And the idea would be that markets would develop for these permits. They would be traded in markets just in the same way that permits for sulfur dioxide are currently traded and one can call up a broker and obtain permits.

Chairman TALENT. Except that that's a domestic trading system.

Dr. YELLEN. Domestic trading system.

Chairman TALENT. The concern that I want to get at is that somebody -- and I like it a little better if it's done upstream -- but somebody's going to be getting a permit from a foreign country or a foreign exchange before they're allowed to expand a plant in the United States, or build a new manufacturing facility in the United States.

Dr. YELLEN. We would have the ability to purchase permits from foreign countries that took on targets or that earned them as a result of clean development mechanism projects that had verified credits.

And I believe what would happen is that a trading system and specialists would develop who would obtain those permits abroad and sell them here into a trading system so that a General Motors would have no obligation to be negotiating with foreign entities.

Chairman TALENT. Right. It's possible that our government might buy permits and be an agent.

Is that another way it might work?

Dr. YELLEN. Well, the design of the system remains unclear. But potentially, this is something that could be handled entirely by the private sector.

And there has been a substantial amount of interest by organized exchanges and by the financial community in seeing a market of this sort set up.

I think they feel that in the case of SO2 permits, this is a mechanism that has worked very well.

Chairman TALENT. I think you can see my concern.

Dr. YELLEN. Sure.

Chairman TALENT. Making American companies buy directly or indirectly from foreign companies before they can -- we might have an interest in them not expanding a particular facility.

And here's another possibility. Let's take a manufacturing facility in my district.

It might decide, well, you know -- let's take Chrysler. They might decide it's really not worth buying that permit so we can expand this facility in the United States. We'll move to Mexico, particularly -- let's suppose Mexico is a key developing country that hasn't agreed to participate as part of Kyoto, but we've gone ahead and done it anyway because of the other countries.

So Chrysler says, we're going to go to Mexico because we don't have to pay the permit fee there.

And not only that. Maybe our government set up the system so that because we're producing fewer cars in the United States because we've moved to Mexico, we're emitting fewer greenhouse gases in the United States.

We get a domestic credit for that.

So we save the permit fee by going to another country. They might even get a domestic credit by leaving our country and our jobs go offshore.

And Mexico isn't a part of the Kyoto Protocol, so it's producing as many greenhouse gases as it wants.

You see my concern here? I'm not trying to just be critical for the sake of it. I'm concerned about our jobs. And I see this trading scheme and I see our jobs going overseas.

Dr. YELLEN. I think you're right to be concerned about the competitiveness and jobs in the

United States.

We're equally concerned, I believe, about jobs in the United States and avoiding incentives for American firms to move abroad. That would not be a win for the economy and it wouldn't be a win for the environment, either.

I think the first point is that the strength of that incentive, even assuming that developing countries do not take on targets, depends on the impact of these agreements on permit prices and on energy prices in the United States.

That's why it is important to look at the economics of the agreement and to try to reassure ourselves that these obligations can be met without having a substantial effect on U.S. GDP or on energy prices.

And that's why my conclusion that the impact on energy prices will be small is critical.

I think, if I'm right about that, the energy price changes in the United States would not be large enough to rate as a substantial factor in the decision of a General Motors or a Ford as to where to put their plant.

Chairman TALENT. I agree. That is critical. Let me get to that.

And I appreciate the Committee's indulgence. I'll be done in a minute or two. As many have here, I've done a lot of work on this. I didn't know Dr. Yellen's time would be short. She indicated that to us a couple of days ago.

I'm happy, if we can't get to all members, to reconvene the hearing and ask her to come back. I'll be finished in a moment or two, and then I'll recognize the gentlelady from New York for as many questions as she may wish to ask.

Let's get to that, the impact of this international trading system, in your judgement.

Now, as I understand it, you believe, and I think this is the best-case scenario, although there are other scenarios which also would save money. But your best-case scenario, as I understand it, if we have key developing country participation and this international trading system, this would be with, what, Annex -- the umbrella with eastern Europe and the key developing countries is that the cost of a credit on an international market like that would be as long as a range -- and I understand why you have to give a range -- of $14 to $23 per ton of greenhouse gases saved.

Is that correct?

Dr. YELLEN. The range depends on whether or not the European Union would participate in Annex-1 trading or not.

Chairman TALENT. And that's the best possible scenario. There are other scenarios as well, but that's the best that you think you can get.

And that would be a reduction by a factor of about ten, would it not, of what the cost would otherwise be of the permit and the cost of compliance.

Is that correct?

Dr. YELLEN. That's roughly right.

Chairman TALENT. So about a 90-percent reduction. So it would be ten times as much if we don't have this trading system in place.

Is that correct?

Dr. YELLEN. Well, as I indicate, the Kyoto Protocol allows for Annex-1 trading.

Chairman TALENT. Right.

Dr. YELLEN. And even if we did not have meaningful developing country participation, which of course, it is the Clinton Administration policy to obtain ~~that.~~ But even without it, the permit price would likely not be anything like ten times as large with Annex-1 trading or under an umbrella.

Without participation by developing countries, the range would be on the order of $29 to $54.

But even there, we're ignoring the possibility of sinks, sinks and other features of the Climate ~~Technology~~ Change Technology Initiative to lower that.

So that's purely a model-based estimate.

To get up to ten times the figure that you're talking about, one would have to assume that none of the flexibility features of Kyoto were taken advantage of.

Chairman TALENT. Okay. I was just looking at your analysis on page 52, where it says, permit prices and resource costs relative to domestic-only abatement of various trading scenarios.

Dr. YELLEN. Yes.

Chairman TALENT. And you have a 93-percent reduction.

Dr. YELLEN. Yes.

Chairman TALENT. And I think there's another --

Dr. YELLEN. But just notice that the top line indicates that simply with Annex-1 trading or under the umbrella, that the percent reduction in permit prices are 72 to 85 percent.

Chairman TALENT. Then I was also going in response, in answer to a question that was our first written question to you, in which we asked about the costs, energy costs, assuming emission trading is not allowed.

And I won't read the whole answer, but the last sentence is: We believe that this difference of nearly a factor of ten underscores the importance of international permit trading and developing country participation, two cornerstones of the Administration's climate change policies.

So the key, as you said, the critical key to this is the trading system. Because you say here on page 44: For the analysis reported here, the Administration employed a conservative assumption that all country sinks equaled zero.

Dr. YELLEN. That's right.

Chairman TALENT. And that no country would implement policies to stimulate the creation of carbon sinks.

Dr. YELLEN. We assume that because we don't yet have good estimates of how sinks will work and what we will get out of them.

But I think sinks offer the potential to bring down the costs very substantially.

Chairman TALENT. Right. But the 93-percent reduction was without sinks.

Dr. YELLEN. The 93-percent reduction is without sinks with trading under the umbrella and with key developing countries included.

But even without the developing countries, the point that I want to make sure that I get across is you can see in line 2 on the chart on page 52, that costs are reduced by 85 percent.

That's utilizing the trading, international emissions trading within Annex-1.

Chairman TALENT. And that surprised me because Japan has agreed to reduce its emissions to six percent below 1990 levels.

The European Union had agreed to reduce its emissions to eight percent below 1990 levels.

Canada had agreed to reduce its emissions to six percent below levels.

And if you take those three and combine them with the United States -- I don't have the figure -- that's got to be 80 percent of the world's gross national product, or the gross international product, whatever you economists call it.

So I was wondering how, if 80 percent of the world's economy were buyers and a maximum of 20 percent of the world's economy were sellers, where we're going to get a reduction of 90 percent in the permit prices.

Dr. YELLEN. Well, Russia and the former Soviet Union are also included in this scheme and use energy extremely inefficiently.

And on top of that, their economies have done very badly. So, they are potential sellers of permits to all of these countries.

Chairman TALENT. That still leaves 80 percent of the world buying. Right? And 20 percent of the world selling.

Dr. YELLEN. Well, what I can report to you are that, for example, beyond our own analysis, and this is why in my remarks this morning, I thought it important to provide some context for our estimates by telling you about a much wider range of analysis that's now available of this protocol.

Chairman TALENT. But this is the analysis of the Administration, and this is what we're talking about.

Dr. YELLEN. Yes.

Chairman TALENT. I'm not talking about Stanford's analysis. I'm talking about your analysis.

Dr. YELLEN. Yes. I agree. And I'm simply telling you that our analysis falls right in the middle of a wide range of results that are now available.

And so --

Chairman TALENT. Is that because, by the way, and I want to finish for the other members. I'm hurrying here, believe it or not.

Is that because the European countries will be able to sell to us -- when you mention Annex-1 countries trading, it's your anticipation that they will be sellers to us.

Right?

Dr. YELLEN. We would be net purchasers from other Annex-1 countries. Clearly we would be net purchasers from the former Soviet Union and Eastern Europe.

And Japan, my guess is, would likely be a net buyer. And Europe -- it depends on whether they are included or not. They might well be net buyers as well.

Chairman TALENT. What's your estimate regarding demand for emission credits in this critical period, world demand, say, in 2008 through 2012?

We always use 2010 because that's the midway period in the compliance period.

So what's the estimate you had for world demand for emission credits in this critical period?

Dr. YELLEN. That's not a number I can give you without doing some work to find it. I don't have that at my fingertips.

I'll try to --

Chairman TALENT. Is that in the analysis?

Dr. YELLEN. The world demand.

Chairman TALENT. It isn't, is it?

Dr. YELLEN. Well, implicitly, that's something that models generate, is they look to see what the demand for trading is.

But it's not something that we've focused on.

Chairman TALENT. Well, you see, I think that's pretty important because you don't have an estimate for world supply, either, do you?

Dr. YELLEN. Well, that is something that's included in these markets.

Demand depends --

Chairman TALENT. It's not included in your analysis.

Dr. YELLEN. It is included in the analysis implicitly, although I've not reported to you the numbers that come out of the models.

Chairman TALENT. We asked you, the Committee asked you in a written question for estimates of the U.S. demand for emission credits by year for the period, 2008 through 2012. And we asked for the potential supply from Russia and the Ukraine.

And here was your answer: The Administration has no estimates of the demand for emission credits by year for the period, 2008 through 2012. Demand will be sensitive to a variety of factors that are quite different to forecast ten to fourteen years in advance, especially the rate of technological innovation and the diffusion and adoption of current innovations and those placed on the market over the next ten years.

For the same reason, we have no estimates of the supply of emission credits.

Dr. YELLEN. Well, I think we have to distinguish two things.

One is the results that come out of the model, which we have reams of computer output on.

Another question is what is our best judgment about what is likely to happen in reality under this agreement, if it's ratified.

What we've tried to do in this analysis is to assure ourselves that the cost of this agreement can be modest. And we believe that we've made that case effectively.

However, what will the trading actually be? It depends on a host of factors we've quite openly admitted we have not yet taken into account, like sinks.

So if you asked me what does the computer simulation say about those questions of trading, that's something I can answer. But what do I think will really happen, I want to wait to find out what happens with sinks.

It depends on the --

Chairman TALENT. I guess I'm not an economist. I don't know how you can estimate price without having estimates for supply and demand.

Dr. YELLEN. There are supply and demand estimates included in the models and that is how these prices were generated.

Chairman TALENT. Well, I guess there was some misunderstanding and mistaken answer to this question, because you say that the Administration has no estimates of the demand for emission credits.

Dr. YELLEN. The models contain estimates. And the ones that were used to produce the numbers here do contain estimates.

Chairman TALENT. And can we have those estimates in response to this question?

Dr. YELLEN. We'll try to provide you with some estimates. We'll see what we can do. Understanding they are model results and not the Administration's judgments about what will really happen when the treaty is workable and sinks provisions and other things have been clarified.

Chairman TALENT. I thank the Committee for its indulgence. I don't normally take such advantage of the Chairman's privilege to ask questions, but this is an area that does concern me.

And I'll be happy now to recognize the gentlelady from New York for any questions she may wish to ask.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

And I just would like to request that maybe we should have another hearing so that the members on my side are given an opportunity to ask questions. They were here on time and I don't think it's fair that she has to leave by 10:30.

Chairman TALENT. As I mentioned before, that was not my understanding. Dr. Yellen indicated a couple of days ago that she would have to leave by 10:30.

I'm more than happy to reconvene the hearing if members desire it.

Ms. VELAZQUEZ. Thank you.

Chairman TALENT. In fact, I was originally thinking of postponing it until she had more time. But I thought we'd do what we could do now.

Ms. VELAZQUEZ. Thank you. Dr. Yellen, the line of questioning that were asked by the

Chairman basically are focusing on the cost of implementing Kyoto.

Can you please explain to us or share with us some of the conclusions that the world's scientists have come to with regard to the cost of inaction in this area?

Dr. YELLEN. Yes. I think that if we have inaction in this area and continue to allow concentrations of greenhouse gases, carbon dioxide, in the atmosphere to rise, while I'm not a scientist~~s~~, I have looked at the literature in this topic, and

Some of the consequences would include rise in sea levels, increased incidence of severe weather events, such as hurricanes, stress on water supplies, giving rise to potential problems of availability of fresh water, stress on soil and moisture that can impact agriculture and the productivity of lands in complex ways around the globe, impacts on human health and incidence of disease.

And in addition to that, species loss and impact on biodiversity and eco/systems.

On top of that, there are frightening possibilities to consider. Presumably, low probability events, but potential catastrophes that are of grave concern, like shifting of ocean currents or substantial changes in the ice sheet in Antarctica, with potentially catastrophic, although small probabilities.

So I think all of those things are of concern.

And economists who have bravely attempted to put pricetags on those have concluded that a doubling of concentrations from pre-industrial levels would likely produce a loss in world GDP of one percent, at least one percent, possibly more.

Ms. VELAZQUEZ. Do you know or are you aware whether the scientific and economic analysis on which you are relying are being called into question as seriously in other countries as it is the case here in the United States?

And if not, do you have any opinion as to why that might be?

Dr. YELLEN. Well, again, I'm not an expert on the science of it.

But my impression is that the scientific results underlying this are quite well accepted in other countries. I don't want to say that there is no scientific discussion or doubt, but the IPCC, the Intergovernmental Panel on Climate Change, which convened a group of experts to consider the science, has concluded that the science is sound and on top of that, there's a discernible human influence on climate.

Ms. VELAZQUEZ. By now, I guess you understand why critics are concerned that the phrase, meaningful participation, has needed to be defined more precisely.

And I guess you have explained this to your colleagues in the diplomatic community.

What can you tell us is their commitment?

Dr. YELLEN. The commitment of my colleagues?

Ms. VELAZQUEZ. Yes.

Dr. YELLEN. My colleagues are working extremely hard and have been for some time in every possible forum, from bilateral diplomatic consultations to multi-national, multi-lateral fora, to attempt to explain to developing countries the potential benefits to them of participating in this agreement, as well as the need to do so.

And while I agree we have not yet achieved it, it is something we understand the need for and are working on extremely hard.

Ms. VELAZQUEZ. I will finish with my line of questioning so that I can give opportunity to my side.

Chairman TALENT. Mr. Toomey?

Mr. TOOMEY. Thank you, Mr. Chairman. A couple of quick questions here.

On the first page of your testimony, there's a quote from the IPCC. And it says that their conclusion in 1995 was that the balance of evidence suggests that there is a discernible human influence on global climate.

My question is does the IPCC anywhere conclude specifically that the release of greenhouse gases by human industry has in fact raised global temperatures already?

Dr. YELLEN. I believe this is their summary of their findings. Namely, that looking at all the evidence, the balance of evidence, suggests that, yes, the human activity has resulted in changes in the global climate.

Mr. TOOMEY. Well, okay. It says, a balance of evidence. And that's an interesting choice of terms. It's not as strong a statement certainly as one could make.

And it also says it's a discernible human influence on global climate, which again is a curious way to describe it.

If there were a consensus and a conviction that there was in fact an increase in the global temperature, presumably, that would have been stated.

Dr. YELLEN. Well, I think there's no doubt that concentrations of carbon dioxide in the atmosphere have increased.

I don't think there can be very much dispute about that.

The question of what's caused that and whether or not there's a human influence, I believe this is the way they stated their conclusion.

Mr. TOOMEY. Right. And it seems to me that it leaves still unaddressed the question of whether that increase in the concentration of greenhouse gases has resulted in an increase in global temperature, or whether it has not.

And I guess my question is, is it fair to state that that is still an unresolved question in the scientific community as to whether or not there has in fact already been an increase in the global temperature, or whether the global temperature continues to fluctuate within a band that it has historically fluctuated within?

Dr. YELLEN. I think I'm not the right person to ask definitive questions to on the science. I would be happy to send one of my colleagues who is.

My own understanding is that the evidence shows both that carbon dioxide concentrations have increased and that temperatures as well have increased during the century.

That's my understanding of the scientific results. But I'm probably not the right person to press further on this issue.

Mr. TOOMEY. Okay. Fine. On another topic, I just wanted to follow up with some questions the Chairman had regarding the application to developing countries, particularly the business-as-usual concept.

Clearly, in recent history, in these countries, business as usual has meant an annual increase in the output of greenhouse gases.

Does business as usual mean that that annual increase would continue for these countries or that it imposes a cap at the current level of business?

Dr. YELLEN. Well, business as usual means a baseline in which no obligations are imposed on these countries and they continue to grow according to their best forecasts and use energy without policy changes.

That's what business as usual is.

That was the baseline for our estimates here. Presumably, if developing countries were willing to take on targets, it would be appropriate for them to cut off of a business-as-usual path to achieve global benefits.

You could think of business as usual for developing countries as a neutral for the world from an environmental standpoint.

But cuts off of business as usual by developing countries would represent the contribution by them to make further progress on the environment beyond what developed countries agreed to at Kyoto.

Mr. TOOMEY. Okay. Thank you. The last question I had was --

Chairman TALENT. If the gentleman would yield.

As Dr. Yellen testified before the Subcommittee on Energy and Power of the Committee on Commerce, and this is consistent with what she just said, but it may be a little clearer.

We presented results that assume that key developing countries take on binding quantitative targets, emissions targets.

These are the targets, at their business-as-usual levels. Or close to them.

Dr. YELLEN. In the analysis, that's the targets.

Chairman TALENT. Right. So the analysis is predicated on them continuing to expand at what they would expand if there was no protocol.

Dr. YELLEN. Right.

Chairman TALENT. I thank the gentleman for yielding.

Mr. TOOMEY. Last question. The trading mechanism that your analysis envisions, as I understand it, would apply or could apply to the purchase -- essentially, what amounts to a fee that would be applied to energy sources.

For instance, as you mentioned, a barrel of oil could require a permit to be paid for, or a unit of electricity, presumably, or coal or some other fuel.

Does this mechanism in any way contemplate that the way you use that oil or coal has potentially widely varying emissions of greenhouse gases?

For instance, if you take a barrel of oil and it's converted to gasoline and it's burned in a modern car, the same quantity of oil burned in a chainsaw has very different levels of emission.

Is that contemplated at all?

Dr. YELLEN. I believe it's the case that burning a ton of coal or a gallon of oil produces, if it's fully burned, produces a fixed quantity of carbon dioxide into the atmosphere.

And cars can be more or less efficient in their use of gas or electric power plans and their use of coal. But when a ton of coal is fully burned, it emits a fixed proportion of carbon dioxide into the atmosphere.

Those things are different. Coal is most intense in its emission of carbon dioxide. Oil less intense. And natural gas produces the least ~~in a sense~~ intense.

Mr. TOOMEY. Okay. Thank you.

Chairman TALENT. Mr. Baird was next.

Mr. BAIRD. Thank you, Mr. Chairman.

I have two fairly brief questions, but they may have long answers.

The first question is, my concern when we look at economic impacts as the topic of today's meeting, is when we speak in terms of macro-scale and talk about modest economic impact, my concern is, on the more micro-scale, specifically the communities where coal is the primary economic engine of that community.

Many of these communities are rural communities. In many cases, coal mining or a power system that depends upon coal is really the predominant job-creator there.

What can you tell us about two issues? First of all, what are the more localized economic impacts because, for me, they seem to be potentially profound.

And two, in your analysis, or the Administration plans, what steps can be offered to help these communities either cope with emission reductions or provide compensatory economic opportunities?

Dr. YELLEN. Did you want to talk about coal communities specifically?

Mr. BAIRD. It seems to me that that may be the most problematic area.

Dr. YELLEN. I think certainly to identify coal as the industry that is mostly likely to be affected by this policy is absolutely correct.

Having said that, coal has a very important place in this country's energy future.

The Kyoto Protocol would in no way change that. Coal in every forecast, ours and every other forecast that I've seen, continues to play a major role.

So I think that's the first thing to say.

I think it can continue to play an even more important role if we undertake research and development on clean coal technologies to make the use of coal increasingly efficient. And there are potential ways in which we might learn to sequester some of the emissions, the carbon dioxide emissions, from coal.

And the Administration has a research program in that area. And if there are pay-offs there, coal can have a growing place in the nation's energy picture.

Having said that, I think it's important to say first, coal is an industry that, with or without Kyoto, or climate change, has been under stress.

Employment has been diminishing in the ~~goal~~ Coal industry for quite some time.

So these are communities that have been experiencing pain. They have mainly been experiencing pain because of very rapid productivity increases in the coal industry.

Nowadays, one can produce a ton of coal with many fewer workers than it required ten or 20 years ago. And that's why coal output has been going up and employment has been plunging.

That's the beginning picture.

Now, in the kind of scenario that we depict in this analysis with permit prices in the $14 to $23 a ton range, we've tried to look at what would happen to coal.

And the answer is that coal output would essentially level off over this commitment period rather than in the baseline, increase slightly.

So there would be a mildly negative impact on coal output.

But, still, there would not be an absolute decline in coal production in the United States.

All that said, the Administration is completely committed to working with the coal industry, with communities with affected workers, since they are the ones that are most likely to see an impact.

Mr. BAIRD. I would personally be interested in some material on the coal research projects for cleaner coal burning and how we can help the rural communities.

I appreciate that information.

The second question I would have is, as we look at the sale of the greenhouse gas credits in an international market, it seems to me rational to suggest that the profits from those sales be cycled back into measures to further reduce the greenhouse gases.

So sort of a two-part question.

One, who benefits from the marketing of the greenhouse gas credit? Who gets the money?

We put it on the market. Money comes in somewhere. Who gets that money? And to what end would it be put?

Dr. YELLEN. Well, I think when there's a market place, anyone that can produce something at lower than the market price and sell it, stands to make a profit.

And when you ask, who is it that stands to make a profit in a market like this, it would be anyone here in the United States -- firms, households -- or in the rest of the world, that look and say, wow, I can reduce my energy use, my greenhouse gas emissions cheaply. And if I do it, I then have the ability to sell a permit in the market place and take the gain as my profit.

Ms. KELLY. So there's nothing going on, no intent to go ahead with this before it's ratified by the Senate.

Is that correct?

Dr. YELLEN. Absolutely not. I would say we do have obligations under the Framework Convention on Climate Change that gave us 1990 levels of emissions by 2000 as a goal. And a number of climate change programs of the government are consistent with that ongoing obligation which was ratified by the Senate.

But with respect to Kyoto, there would be no action undertaken until such time as that treaty is ratified by the Senate.

Ms. KELLY. But you will go for goals that are included in the treaty without coming to the Senate.

Is that what I've just understood you to say?

Dr. YELLEN. I've said there are previous agreements that have generated programs. Previous agreements, not Kyoto.

Ms. KELLY. When does the Administration plan to submit the treaty to the Senate?

Do we have an estimate?

Dr. YELLEN. We continue to work to implement in an effective way the Clean Development Mechanism, international trading, and we're committed to achieving meaningful developing country participation, and won't submit it to the Senate until we feel that we're there.

Ms. KELLY. Thank you. My time is up. I have a number of other questions.

Chairman TALENT. And Dr. Yellen, with regard to the cost of this international trading system, wouldn't it be a good idea to have some analysis of that before we agree to something?

Dr. YELLEN. Well, ideally, we would have estimates of the economic impacts of everything. ~~I think it is widely agreed among economists that~~ 2500 economists signed a letter urging the United States to negotiate ~~and~~ an agreement to limit greenhouse gases that would have such flexibility mechanisms because the experience that we've had with using it for environmental purposes here in the United States and markets generally, is that they work well and, on balance, greatly reduce the cost of meeting environmental and other goals.

Now there are some costs to running markets themselves and you're very right to point out that market systems require institutions and monitoring and compliance.

It's not costless.

But, on balance, the contribution of a market system of international trading to reducing costs is very great and I think it's something that we pushed for and were right to push for ~~an~~ and insist on in the Kyoto Protocol.

Chairman TALENT. This analysis was published in July of 1998.

Right?

Dr. YELLEN. Yes.

Chairman TALENT. Is that when you had it available? Is that when you had made the analysis, in July of 1998? Or had you made it before then?

Dr. YELLEN. We had undertaken a variety of kinds of economic analysis earlier. But this analysis reflects our understanding, an analysis of what was agreed to at Kyoto.

Obviously, it was a negotiation. And we only know what was agreed to when it's over. And so we've taken the key things that were agreed to and have tried to perform an analysis with that knowledge.

That doesn't mean that no economic analysis was done prior to going off to negotiate. That would be false.

Chairman TALENT. Okay. Well, I wondered about that because, in response to one of the questions from the Committee, you indicated that all of the quantitative analysis underlying Dr. Yellen's testimony -- that was when you testified before the Committee in June of 1998 -- were developed after Kyoto.

Dr. YELLEN. That's correct. That's what's in this document, this analysis. And in my earlier testimony, the results that I cited were the ones that are also given in this document that was later published.

All of that work was undertaken after Kyoto.

But it does not mean that the negotiations in Kyoto were uninformed by an understanding of economics.

That's my point.

Chairman TALENT. Okay. Thank you. I'll recognize -- who is next? -- Ms. Christian-Christensen is next.

Ms. CHRISTIAN-CHRISTENSEN. Thank you, Mr. Chairman. Good morning, Dr. Yellen.

Dr. YELLEN. Good morning.

Ms. CHRISTIAN-CHRISTENSEN. I wanted to follow up on a question about the flexibility mechanisms because you said in your testimony that during the development of the work plan last fall in Buenos Aires, it was decided to resolve key implementation issues regarding these flexibility mechanisms by the end of the year 2000.

Is resolving this by that time necessary before ratification efforts?

And if so, does that bear on suggestions that we should renegotiate elements of Kyoto because the timeframe is becoming too constrained?

Dr. YELLEN. I think it is critical to resolve the issues about how international emissions trading will work and how the clean development mechanism can work as a mechanism in implementing the Kyoto agreements.

So, clearly, these issues need to be resolved.

But I believe we can meet the commitments that we've made. If these issues are resolved by the end of 2000, which is the plan, I believe there's adequate time for us to set the things in motion that are necessary for us to meet our commitments in the first commitment period.

I think there's time that remains. And we are engaged now in discussions with industries that are willing to take on voluntary commitments. Certainly, many industries are thinking about Kyoto, are making their own plans with the knowledge that reduction of greenhouse gases is high on the environmental agenda, an important issue.

And so, while we've done nothing to implement Kyoto, I think it's fair to say that many industries, many firms, are looking to a future in which we are attempting world-wide to limit greenhouses gases in making their own investment decisions now.

And in that sense, we're already on the way to taking meaningful action to meet these goals.

Ms. CHRISTIAN-CHRISTENSEN. Thank you. I have one other question. Again, it follows up on a question that the Chairman -- a concern of his, and of many critics, that the cost of implementing Kyoto and the U.S., because of the cost, employers will relocate facilities to the developing world, resulting in serious job losses and economic dislocations.

If you disagree with that conclusion, could you tell us what factors lead you to believe that major disruptions of this kind are not likely to occur?

Dr. YELLEN. It's a very important consideration. I disagree with the conclusion. ~~First --~~ I want to give ~~two~~ three reasons.

First, that I believe the impact on energy prices will be so small as quantitatively, to be unimportant in driving international location decisions for firms.

That's number one.

Number two, many of the countries with whom we compete, the Annex-1 countries will be undertaking commitments like ours.

So, to the extent that there's some impact on energy prices here, there will be comparable impacts with many of our competitors.

Third, if we are successful in achieving meaningful developing country participation, and particularly if developing countries, key developing countries were to take on targets, that would work to level the playing field world-wide because countries that take on targets and participate in international trading will have the incentive to comparably raise energy prices to conserve on energy and to take advantage of the gains from that system.

So another reason for wanting the developing countries to participate in this system is to globally level the playing field so that you don't have the kind of relocations that you would be rightly concerned about.

Ms. CHRISTIAN-CHRISTENSEN. So you don't anticipate that Congress would need to consider programs to counter-act the potential for those kind of dislocations at this point?

Dr. YELLEN. I don't believe that that should be in Congress' agenda at this time.

Thank you.

Thank you, Mr. Chair.

Chairman TALENT. Mr. Hill?

Mr. HILL. Thank you, Mr. Chairman. And thank you, Dr. Yellen, for being here.

Dr. Yellen, a year ago I asked you some questions about some assumptions that I had made, and I asked you to make comment on those, and if you disagreed with them. And you didn't.

So I presume that you ~~dis~~agreed with them. And I just wanted to run through these again to make sure that my understanding of this is correct.

It's estimated that there are about 90 billion tons per year of carbon dioxide that comes from the oceans, about 30 billion tons of carbon dioxide that comes from decaying plants, and about 30 percent billions of carbon dioxide emitted into the atmosphere that comes from animal and plant activities separate from human activity.

And then about seven billion tons that comes from all the consumption of fossil fuels and from all of human activity.

That represents about five percent of the total carbon dioxide emissions that are coming from our activities and it's this five percent that we're substantially trying to deal with with the protocols at Kyoto, how we're going to manage this five percent.

Do you have any reason to disagree with those approximate numbers?

Dr. YELLEN. I don't have any information on those numbers here.

Mr. HILL. I would ask you again, if you do, maybe you would let the Committee know, as I asked you a year ago about that.

What I want to do is talk about the natural elements that are occurring out there because, basically, the numbers I've given you, about 150 billion tons of emissions coming from natural activities and 7 billion tons coming from other purposes.

It seems to me that if our goal is to try to reduce the carbon dioxide emissions, carbon dioxide build-up in the atmosphere, that we ought to be trying to analyze what's happening in the natural side.

The assumption here is that either there's become an imbalance in terms of those natural activities that consume the natural emissions, or that the accumulation of human activity has added to the increase in carbon dioxide in the atmosphere.

Would you agree with that? That's basically the assumption that Kyoto is based on.

Dr. YELLEN. Well, this is a scientific question that I'm probably not best qualified to comment on.

But you're certainly right that changes in land use and natural activities, along with human activity, matter to the build-up of greenhouse gases in the atmosphere.

That's certainly true. And that is one reason that carbon sinks are included in the Kyoto Protocol as a factor governing emissions.

We know that deforestation, for example, leads to an increase in greenhouse gas emissions in the atmosphere. That's why it's very important that the treaty recognize that we should take into account in computing countries' targets the factors governed by carbon sinks and changes in their release and absorption of carbon.

Mr. HILL. I don't want to argue that point with you. But deforestation reduces the natural processes that reduce the carbon in the atmosphere. Deforestation wouldn't necessarily increase carbon emissions.

But that's one of the things that I want to talk with you about because carbon dioxide that is released -- a ton of carbon dioxide that comes from coal is no different than a ton of carbon dioxide that would come from oil or gas or from any other process, is it?

It's all the same.

Dr. YELLEN. Right.

Mr. HILL. There may be more btus. There may be different economic consequences of all those things. But in terms of the impact on the atmosphere, it would be the same.

Which brings me to the question that concerns me. And that is the question of sinks because, interestingly, in the protocol, our forest management practices were kind of left out.

In fact, they were carved out.

What we've learned in the Resources Committee, Dr. Yellen, is that we have catastrophic fire hazards in our national forests.

As a matter of fact, our national forests are subject to greater fire hazard today than any time in the history of the country. And that the Administration's policies are putting off for as long as 50 to 70 years eliminating these catastrophic fire hazards.

Now, clearly, a burning national forest adds to the carbon dioxide in the atmosphere, doesn't it?

If a forest burns, it's going to add carbon to the atmosphere.

Would you agree with that?

So preventing that fire from occurring, do you think it would be a good policy?

Dr. YELLEN. You know, I'm not qualified to talk about what the right way is to promote sink activity.

Mr. HILL. Even though the Kyoto Protocol suggests that sink activity is one of the significant ways that we can deal with the carbon dioxide issue.

In other words, what you're saying is that we should ignore that?

Dr. YELLEN. No. I think sinks are extremely important and forestry initiatives that are judged to be both cost effective and can help us meet our emissions targets certainly are important and ought to be part of our approach.

Mr. HILL. So the Administration's plan prescribed burning, to increase the burning of the forests.

How does that help us meet the emissions goal?

Dr. YELLEN. I'm sorry?

Mr. HILL. The Administration has a plan to substantially increase prescribed burning of our national forests.

Could you tell me how that's going to help us meet our emissions goal?

Dr. YELLEN. I'm not an expert on forestry management. And to discuss that, I really think I ought to send you somebody who's better qualified to discuss it than I am. I'd only point out that there are a number of different factors relating to forest management policy that have to be taken account of.

And on the issue of burning, I'm not the right person to ask that question to.

Mr. HILL. So you're not aware of any aspect of our current forest management practices that would help us meet those objectives.

Dr. YELLEN. I'm not knowledgeable enough on this topic to respond to your question.

I'd be happy to refer to this Committee somebody who can answer it.

Mr. HILL. The last thing, Mr. Chairman, before I go, your goal when you were here, there were a lot of questions that arose again in your testimony that members wanted to understand fully the economic assumptions and factors that you use for your projections because you're aware of the fact that there are other economic models out there that differ dramatically from what your economic models suggest.

Dr. YELLEN. Well, in fact, I've tried to summarize in my testimony this morning a great deal of economic research to help put our results in context.

And the conclusion that I reached and would be happy to justify in greater detail is that our results lie more or less in the middle of what a large number of analyses are saying about Kyoto.

Mr. HILL. Dr. Yellen, you know, it's said that if you have your feet in the refrigerator and your head in the oven, on average, your temperature is about right.

An average doesn't mean much and it certainly doesn't determine accuracy.

What we want to do is to get the factors so that we can make an analysis of the difference because even within the Administration, there are different conclusions that are drawn.

We need to first of all understand those factors and assumptions. Then we need to translate this into some sort of cost-benefit analysis that we can use to compare alternative strategies, including strategies that might increase the natural processes to reduce carbon dioxide build-up.

I thank you.

Thank you, Mr. Chairman.

Chairman TALENT. Next is Ms. Tubbs Jones.

Ms. TUBBS JONES. Thank you, Mr. Chairman.

I'm going to make my questions brief in order to give my colleague, Ms. Millender-McDonald, at least a couple of minutes to make an inquiry of you.

I want to go back to meaningful participation and get an understanding as to what meaningful participation in fact means by developing countries in this discussion about the Kyoto agreement.

Dr. YELLEN. I don't have a definition to give you of meaningful participation. But, certainly, if key countries ~~could be induced,~~ would agree to take on targets, emissions targets, and to participate in international emissions trading, that would be sufficient, I believe, to constitute meaningful participation.

Ms. TUBBS JONES. Let me delve just a little bit deeper, then.

How many countries are we talking about in order to assess what meaningful participation is?

Dr. YELLEN. I don't have a pre-determined formula to give you.

I can tell you that there are hopeful signs in that there are some countries that have agreed to voluntarily take on targets that are not in Annex-1.

Argentina and Kazakstan are two countries that have shown interest. And it is our hope, working diplomatically, intensively, that we will convince other countries.

And we understand that, in presenting a treaty to the Senate for ratification, which is what's required of the Administration, that it will be our job to make the case that we have achieved something that constitutes meaningful participation.

We will have to make that case.

Ms. TUBBS JONES. So as you sit here, you have no particular goal in mind.

Dr. YELLEN. I don't want to determine in advance, pre-judge precisely what that goal is.

But as I've indicated, we're working intensively diplomatically to attempt to draw developing countries into this treaty, so that we will be able to make the case when the time comes that we've achieved that.

Ms. TUBBS JONES. Then you recognize that your critics, by you responding as you're responding to me, say, well, what does that mean?

Dr. YELLEN. Yes.

Ms. TUBBS JONES. And so, I'm sure as a result of that, you are going to work on how we can better respond, those of us who are supportive of this agreement, to that issue.

Dr. YELLEN. Yes. I think it's our job to justify -- I mean, at the moment we're engaged in intense diplomatic efforts to try to move developing countries to participate in this agreement in ways that will be beneficial for us and for them and satisfy the Senate that we have achieved meaningful participation.

We know that's the bar we have to jump over at the end of the day, and ought to, for this treaty to be ratified.

I would urge you ~~I think~~ to invite someone from the State Department to discuss our diplomatic initiatives in greater detail and what their interpretation would be of meaningful participation.

Ms. TUBBS JONES. I yield to my colleague, Mr. Chairman.

Chairman TALENT. Yes.

Ms. MILLENDER-MCDONALD. Good morning, Dr. Yellen.

I first would like to speak to the Chair because, as it appears, our colleague had raised many scientific questions to you. And it appears that there needs to be a scientific expert who comes to this Committee to answer those questions, as opposed to posing those questions to you and you do not have the answers.

It appears as if that is an indication that -- and it seems to me that those are questions that are posed primarily to embarrass, if nothing else, in my opinion.

And so, I do feel, Mr. Chairman, that if we're talking about scientific questions being raised, we certainly should have the proper people being in this Committee to do so.

Dr. Yellen, you say that you're trying to draw developing countries into this Kyoto Protocol. And yet, they are saying that they will not come in because of new commitments or they have been excluded with -- let's see if I can get you that so that I can adequately state that.

They feel that they have been clearly excluded from new commitments in this protocol.

So how do you expect to draw them in if, in fact, they feel that they have not been brought to the table with certain commitments that should be within this agreement?

Dr. YELLEN. First of all, we have a clean development mechanism that is part of the protocol. I think the clean development mechanism offers clear advantages in meeting the goals of the protocol and benefits for developing countries.

So one of the first things we need to do is to convince developing countries ~~that~~ of the benefits to them of using this as a way to put in place environmentally friendly energy-efficient projects in countries that are growing rapidly.

And we're doing that.

Beyond that, I think we can try to convince them, and we are, of the benefits to them of taking on targets voluntarily, in spite of the fact that they're not obliged to do so under the terms of the treaty.

And the reason that I think we have a chance in convincing them is because there is a win-win here.

There is a potential win for developing countries because if they take on targets that represent reductions from their baseline emissions paths, but ones that are not excessively ambitious given their economic situations, they will have the ability to reduce emissions more than they're required to do so.

They have the potential to do that at very low cost and they can earn income as well as resources for their development of their energy sectors by selling emissions permits in the world markets to the United States and other developed countries.

Ms. MILLENDER-MCDONALD. And has this been articulated to them?

Dr. YELLEN. Yes, indeed, it has been articulated.

Ms. MILLENDER-MCDONALD. And what has been the response that they've given?

Dr. YELLEN. I personally articulated this case in several instances in China and in other countries.

I think that this is something that they are beginning to understand, that they can participate in ways that will be a win for them.

And we're pursuing this diplomatically. There is a case to be made.

On top of that, if you take a country like China and ask, what is its number-one environmental problem, I think the answer is air pollution.

So they themselves are tremendously concerned about the adverse health consequences of their intensive reliance on coal. They see themselves developing rapidly with worse pollution, local pollution problems.

That isn't greenhouse gases. That's not climate change. But they have a motive to try to deal with coal and substitute cleaner energy in their own development. Even forgetting about greenhouse gases and climate change.

When you combine their natural interest in controlling pollution with the possibility that they can abate emissions very cheaply, and particularly with the help of U.S. businesses that have the technology readily available to abate emissions of these countries at low cost, and then walk out ahead, having actually earned revenue because by abating emissions below their targets, they can sell these permits in world markets.

We come out ahead. They come out ahead.

Ms. MILLENDER-MCDONALD. Well, truly. But are you suggesting, then, that the U.S. businesses are amenable to doing this with developing countries such as China?

Dr. YELLEN. They would love to do it with countries like China because I think they can see in Chinese participation or other developing country participation enormous gains for businesses.

Businesses would have the opportunity to put into place at low cost technologies we already possess that would enable China to grow in a cleaner way.

And it would boost their sales. It would give a boost to an important industry in the United States, namely, energy efficiency, the whole energy-efficient sector.

It's terrific as a business opportunity and it's a win-win all around.

Ms. MILLENDER-MCDONALD. Well, you see it as a win-win. But do our U.S. businesses see it as a win-win for them, both here, domestically, as well as internationally?

You're saying they do internationally. What about domestically?

Dr. YELLEN. I think even domestically, many of our businesses see the potential for a win here because we will be stimulating the development of new technologies and new cars and fuel-efficient cars and green technologies and environmentally-sound technologies.

And that can be a real win for businesses.

Ms. MILLENDER-MCDONALD. I am just absolutely excited about this issue.

Mr. Chairman, I know I'm over time. I've seen the red light two minutes ago.

But I would like for us to maybe, if I can suggest to you, Mr. Chairman, the Ranking Member, to have another hearing on this, but to bring some of the scientific people out because I would like to pose some questions myself to ones who perhaps have a more scientific view of this issue than perhaps the Doctor has.

And thank you so much.

Chairman TALENT. I appreciate the gentlelady's comments.

We had an extensive hearing on the science in the middle of last year.

I don't generally restrict what members wish to ask about. Dr. Yellen testified as to the scientific underpinnings of this. And so, I thought it was fair for Mr. Hill to ask his questions, although I was thinking while he was doing it that we ought to have maybe a hearing with the Subcommittee on Rural Enterprises ~~would be good.~~

I'm very interested in reconvening this with Dr. Yellen again and perhaps somebody from the State Department, to find out, among other things, what analyses were made before they agreed to a seven-percent level below 1990 emissions.

Because it does seem to me that this whole international trading system depends on the assumption that foreign countries are able to achieve their targeted emission levels much cheaper than we're able to achieve our targeted emission levels.

Otherwise, they can't reduce the cost of our permits by close to 90 percent, which means that they got a pretty good deal in terms of their targeted emission levels.

One question I have is why we didn't get our target emission levels up a little bit, ~~sat~~ Say at the 1990 levels the President originally suggested.

Then maybe we could push them a little bit in negotiations to agree to a little bit less. Because I'm less concerned about win-win for them than I am about the effect on the American economy.

We seem to be very concerned about win-win for foreign countries and less concerned about the impact on our own country.

I'm also going to inquire, Dr. Yellen, about what analysis you did perform before -- and we'll get through this in written questions -- before Kyoto.

Let me ask you one other question. I know you have to go.

What are we going to do if the other countries agree to targeted emission levels and then they cheat?

Dr. YELLEN. Compliance ~~is clearly,~~ and monitoring ~~and compliance~~ is clearly a very important issue in the design of an emissions trading system, and it will be considered in great detail in that context.

Chairman TALENT. I understand. But I mean, since we are considering Mexico agrees to targeted emission levels, and then says it's doing below that, sells the permits to us, gets all our money and then builds whatever factories it wants.

Dr. YELLEN. There are a number of possible approaches to provide incentives for compliance that, to trade, the countries would have to comply.

That will be the matter that's up for negotiation at the next conference.

Ms. MILLENDER-MCDONALD. And will there be penalties for those who do not comply?

Dr. YELLEN. Well, I don't want to pre-judge what's going to come out of that negotiation. That is what's to be decided, what form possible penalties could take. Could they relate to ability to trade?

That's something that needs to be determined.

Ms. MILLENDER-MCDONALD. And are the tax incentives that the President is proposing, will this help our small businesses because I think that is critically an issue for small businesses as they engage in this whole reduction of emissions.

Dr. YELLEN. Well, the President has laid out a series of tax incentives and other climate change initiatives. I think that small businesses certainly have the opportunity to benefit from the tax cuts that the President has proposed in his most recent budget and in last year's budget as well, to put in place energy-efficient technologies.

Ms. MILLENDER-MCDONALD. I would like to, Dr. Yellen, see those specifically and especially for minority businesses.

Thank you, Mr. Chairman.

Chairman TALENT. Yes.

Dr. YELLEN. Thank you.

Chairman TALENT. If we know they're cheating, they'll comply.

Thank you, Dr. Yellen, for coming.

The next witness -- we do have another panel, I should have mentioned. Actually, another witness.

And Mr. Reinstein is not under a time constraint that I know of, so --

Mr. Reinstein, I understand you don't have to go back to Helsinki for a week. So you have plenty of time here for us.

Mr. REINSTEIN. I have lots of time.

Chairman TALENT. We'll go right to your testimony. It's Mr. Robert Reinstein, who is the president of Reinstein & Associates International, Inc.

Mr. Reinstein.