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for
Sustainable
Energy

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Exxon Urges Developing Nations to Shun Environmental Curbs Hindering Growth

By IAN JOHNSON
Staff Reporter of THE WALL STREET JOURNAL

BEIJING – The chairman of Exxon Corp., the world's biggest oil company, urged developing countries to avoid environmental controls that would hinder their development. Otherwise, he said, they risk losing foreign investment.

Lee R. Raymond's warning to delegates of the 15th World Petroleum Congress was in stark contrast to the views of some governments and many companies in the run-up to an international conference on global warming in Kyoto, Japan, in December.

Mr. Raymond said developing countries need "rational" environmental standards, not those based on the premise that the world's climate is warming and that fossil fuels are partly to blame. If the December meeting results in tougher environmental laws, then energy may be rationed, he warned.

Urging developing countries to increase, not curtail, their use of fossil fuels, Mr. Raymond said nature was to blame for most global warming. Besides, he said, the earth's temperature often changes. "The ice ages are a good example," he added.

Even if developing countries are excluded from requirements to curb pollution, they would still be affected because developed countries would have slower economic growth and import less, Mr. Raymond said. He called on Asian countries to fight emission limitations for at least another 20 years until the process of climate change is better understood.

While Mr. Raymond's comments reflect the stance of the American Petroleum Institute, a major U.S. oil-industry lobbying group that he heads, there are dissenters in the industry. In a May speech, **British Petroleum** PLC's chief executive officer, John Browne, said, "The time to consider policy dimensions of climate change is not when the link between greenhouse gases and climate change is conclusively proven, but when the possibility cannot be discounted and is taken seriously by the society of which we are part."

However, Mr. Raymond warned that if too much emphasis is put on environmental rules that cost investors money, oil multinationals can always invest elsewhere. "Competition among countries eager to develop petroleum reserves is at an all-time high," he said, and nations need to offer tax concessions as well as "rational environmental standards" to lure businesses to invest.

THE WALL STREET JOURNAL TUESDAY, OCTOBER 14, 1997

The Kyoto Protocol: a painful response

While most Americans focus on the here and now—election results, football scores—longer-term issues bear watching because they ultimately can affect the here and now. One such issue is climate change.

Mobil is concerned about the potential for human activities to affect climate. That's why we support voluntary efforts to reduce emissions. The Kyoto Protocol has been billed as a solution. It isn't the right one. It only focuses on emissions in developed countries, will only minimally reduce the amount of greenhouse gases in the atmosphere and will produce major economic distortions in the U.S. and elsewhere.

Credible private-sector studies have detailed Kyoto's potential economic effects. And now, a U.S. government report provides further evidence of what to expect.

Earlier this year, analyses by WEFA, Inc., and Standard & Poor's DRI concluded that the only way the U.S. could meet the Kyoto-mandated emissions target is to significantly increase energy prices, force conservation and promote fuel switching—all at considerable cost.

WEFA estimates the cost of achieving the Kyoto target by 2010 would result in a loss of 2.4 million jobs, a doubling of electricity prices and an annual loss in economic output of $300 billion—an amount greater than our nation's expenditures for primary and secondary education. Ditto DRI's conclusions: job losses of more than one million, an increase in electricity prices of nearly 40 percent and a decline in GDP of roughly $100 billion.

Now the U.S. Department of Energy's Energy Information Administration (EIA) reports the mandated emissions cap could cost the U.S. far more than the Administration estimates. EIA examined six emission reduction scenarios and concluded that as higher energy costs work their way through the economy, the annual loss in GDP could range from $150 billion to $400 billion. That translates to an annual cost of $1,500 to $4,000 per family.

The Administration's Council of Economic Advisors (CEA) estimates the annual GDP penalty at $7 billion–$12 billion, or a cost per household of $70–$110. Why this rosy picture? Because the CEA is counting on the U.S. being able to meet most of its target by relying on a global emissions trading system. Yet, the Kyoto Protocol limits emissions trading to the developed countries.

While emerging economies probably offer opportunities to reduce emissions at lower costs than in the U.S., some nations like China and India have said they are unwilling to participate in such schemes.

Just 15 months ago, the U.S. Senate voiced its concerns over ratifying a treaty that would cause serious harm to the U.S. economy or that did not include participation by developing nations. Those concerns still have not been satisfied.

This week, negotiators are meeting in Buenos Aires to discuss the complex rules to implement the Kyoto Agreement. Emissions trading is certain to be on the agenda. Serious differences already exist on the percentage of reductions that should come from domestic actions rather than trading. The U.S. would argue for no restrictions; the European Union wants at least 50 percent of the reductions to come from domestic steps.

While complex mechanics continue to be worked, the fatal flaws of the Protocol—mandated emissions targets, selective participation and economic distortions—still persist.

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Outreach

TS + Div F

Mtg. with CEOs

July — alum, steel, forest products, elec power, cement

Agreement to
- e inventory
- monitoring system
- e audit of practices
- statement of initial tentative "stretch goal" reduction 2010
- action plan to achieve

Aluminum — Paul O'Neill

have a lot of PFCs. they are willing to reduce

"stretch goal" of emissions CO_2

Steel

Forest products — Jul. 16 — Weyerhauser, Boise Cascade...

Concrete — PATH

-- get better mkt. acceptance of blended cement

chemicals

Gas pipelines

Airlines

Electronics

3/8/97

PRE-DECISIONAL DRAFT

KEY OUTCOMES OF PUBLIC MEETING
Messages We Must Communicate

1. THE ENVIRONMENTAL DRIVER...

- The best scientific evidence available suggests that global warming is a real environmental problem that requires serious attention. Inaction poses unacceptable risks.

2. THE ECONOMIC PICTURE EMERGES...

- Our economic analysis is complete. It shows that we can afford to adopt a reasonable, market based solution. It confirms that our protocol approach is grounded in solid economics, and it points the way to a domestic policy approach that will achieve environmental gains and a robust economy.

- Our analysis confirms the following:

  -- Inflexible policies are right to be rejected: they are too costly. The global community cannot afford to waste the limited capital available on inefficient control investments.

  -- Flexible policies deserve our support: they are the most cost effective. This approach targets the limited capital available to the most good it can do.

  -- Rational timing and international offsets offer the best chance for a reasonable transition in greenhouse gas performance of carbon-dependent sectors of our economy -- delivering the fairest and best results for American industry and workers.

  -- The entire international community will benefit from emissions trading flexibility as much as the U.S.

  -- There is a vast market on the horizon for advanced technologies -- whether efficiency, renewables, natural gas or clean coal technologies.

  -- The potential impacts of inaction -- from more storms, health and agriculture impacts -- require a prudent insurance policy in the form of serious action.

3. DOMESTIC POLICY DESIGN PLANS...

- **Opportunity.** The greenhouse gas reduction market will be hungry for advanced technology, and America intends to take the lead in this new market. We are launching a new domestic policy development effort that will include designing a strategic public-private partnership to research, develop and deploy improved technologiesfor winning in this growth market.

- **Fairness.** Our domestic implementation plan will also include an emissions trading program that will strike a fair and efficient balance of responsibility for all those contributing to the rising greenhouse gas emissions problem. It will allow the private sector the flexibility to invest in response strategies that achieve reductions at the least cost.

- **Workers.** Our cost effective approach will ensure that the fewest workers are adversely effected -- and we will work with American business and labor unions to construct a workforce and community transition effort to

ensure a viable economic future for any American worker losing work from the changes coming under our climate strategy. We will make every effort to connect any job losses with emerging opportunities in manufacturing advanced technologies.

- **Next Steps.** Over the next several weeks, we will convene small groups to focus on specific sector interests and concerns. Our initial sectoral analysis is open for consultation, as are our policy design alternatives. In each sector session over the next month, we will consult panels of experts in discussions of potential impacts, mitigation options, research and development alternatives and workforce transition programs.

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Mid-June Climate Change Meetings:

Analysis of Greenhouse Gas Emissions Reductions

Overall Schedule:

1. **Press Backgrounders** (day before)

2. **Pre-briefs** (as necessary)

3. **Public Meeting/Draft Report Release** (Mellon Auditorium, 1 day)

4. **Hill Staff Briefings/Draft Reports** (House, Senate, 1/2 day each, day after)

5. **Sector-Based Meetings** (Set up a series over the next month)

6. **Other post-briefs** (take advantage of key opportunities)

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Draft Report for Public Review

Table of Contents:

1. **Welcome from Katie McGinty and Dan Tarullo**

   - (lead author: Steve Seidel)

2. **Executive Summary**

   - (lead authors: David Gardiner, Alex Cristofaro, Mark Chupka)

3. **Scientific Basis for Action**

   - (lead author: Jerry Melillo)

4. **Economic Analysis of Emissions Scenarios**

   - (lead author: Ev Ehrlich)

5. **Economic Sector Implications**

   - (lead authors: Jeffrey Hunker, Judi Greenwald)

6. **Domestic Policy Responses For Consideration**

   - (lead authors: Joe Romm, Ed Montgomery, David Gardiner)

7. **Next Steps: Process for Consultation**

   - (lead author: Dirk Forrister)

Schedule for document clearance: Chapters 1,3, 6, 7 -- 2 days grace for 2,4,5

- Draft 1 Due: 5/13 COB
- Draft 1 Circulated: 5/14
- Comments Due: 5/19 COB
- Final Drafts Circulated: 5/21 COB
- Final Concurrence Due: 5/23
- Week of 5/26: Duplication And Compilation

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Public Meeting Schedule:

TIME	SUBJECT	PRESENTERS
9:00 - 9:15 AM	**Welcome**	Katie McGinty/Dan Tarullo
9:15 - 9:45 AM	**Scientific Basis for Action:** Core scientific understandings Direction of future assessments	Jack Gibbons Outside science leaders [TBD by Jerry Melillo]
9:45 - 10:45 AM	**Introduction Of Economic Analysis Of Emissions Scenarios:** overview of analysis and interaction of the economy to relative price changes from policy	Ev Ehrlich Dale Jorgensen, Harvard University William Nordhaus, Yale University
10:45 - 11:15 AM	Summary of domestic and international baselines through 2010	Mark Chupka, DOE
11:15 - 11:45 AM	Alternative carbon stabilization policies reviewed by the IAT	David Gardiner, EPA
11:45 AM - 1:10 PM	**LUNCH BREAK**	
1:10 PM	**Major Assumptions:**	
1:10 - PM	Technology in the baseline (The National Energy Modeling System)	Andy Kydes, EIA Steve Bernow, Tellus Institute
1:10 - 1:30 PM	Carbon stabilization policies and technology assumptions in Markal-Macro	Philip Tseng, DOE Stephen DeCanio, University of CA Santa Barbara
1:30 - 1:50 PM	Monetary Policy and Inflation in DRI	Ron Early, DOE
1:50 - 2:10	Discussion of effects of alternative policy	Tracy Terry, EPA

PM	options	Bill Hohenstein, EPA Larry Goulder, Stanford University Robert Repetto, WRI
2:10 PM	**Results:**	
2:10 - 2:30 PM	Domestic macroeconomic and price impacts of carbon stabilization, and comparison of the three models	Howard Gruenspecht, DOE John Weyent, Stanford Energy Modeling Forum, Stanford University
2:30 - 2:50 PM	International macroeconomic and price impacts of carbon trading and joint implementation	Al McGartland, EPA Larry Goulder, Stanford University
2:50 - 3:10 PM	Energy Impacts- the effects of the supply side	Ron Early, DOE Ray Kopp, RFF
3:10 - 3:30 PM	Industry and regional impacts, and aggregate impacts on international trade	Tracey Terry, EPA Rich Richels, Energy and Power Research Institute Robert Scott, Economic Policy Institute
3:30 - 3:50 PM	Industry international competitiveness impacts	Kerry Smith, Duke University
3:50 - 4:10 PM	**Economic Sectors, Next Steps For Analysis**	Jeffrey Hunker, DOC
4:10 - 4:30 PM	**Lessons Learned From Modeling**	CEA/Treasury?
4:30 - 4:45 PM	**BREAK**	
4:45 - 5:30 PM	**Introduction Of Policy Options For Consideration**	Assistant Secretaries Joe Romm - Technology

		Ed Montgomery - Transition David Gardiner - Trading
5:30 - 5:45 PM	Next steps and process for consultation	Dirk Forrister, WHCCTF

cc: JAF
JH
AW
RL
JA

White House Climate Change Task Force

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

March 4, 1998

MEMORANDUM TO DISTRIBUTION

FROM: Dirk Forrister, Chair

SUBJECT: Meeting on Industry Outreach

I would like to remind you of the meeting **Thursday, March 5, from 3:00 to 4:30 p.m. in the White House Conference Center in the Lincoln Room (724 Jackson Place, NW)** for the first meeting of an Assistant Secretaries' Industry Consultation Council. I have attached several documents to help you prepare for the meeting.

The draft agenda is as follows:

I. Overview of Project Goals and Approach

II. Organizational Structure and Process
- Industry's Role and Participation
- Federal Role and Participation

III. Timetable
- Phase I Sectors

IV. Next Steps

I hope to see you tomorrow. Please call me before selecting substitutes if you are not able to attend or if you would like to bring additional staff (space is limited). If you have any other questions, you may call me or Lisa McNeilly at (202) 343-1060.

Attachments:
"Scoping Paper: Industry Consultations"
"Addendum A: Industry Plans for Early Reductions"
"Addendum B: Questions for Industry"

Distribution:

David Gardiner	EPA	260-0275
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Rafe Pomerance	State	647-0217
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Jon Gruber	Treasury	622-2633
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David Hales	USAID	216-3174
John Leiber	DOT	366-7127
Jennifer Haverkamp	USTR	395-4579
Rosina Bierbaum	OSTP	456-6025
Henry Kelly	OSTP	456-6023
T.J. Glauthier	OMB	395-4639
Cheri Carter	OPL	456-6218
David Sandalow	CEQ	456-2710
Peter Orzag	NEC	456-2223
Bill Antholis	NEC	456-5334
Jeff Frankel	CEA	395-6947
Marty Spitzer	PCSD	408-1655

Total pages: 11

SCOPING PAPER: INDUSTRY CONSULTATIONS

Draft: March 4, 1998

"We must continue to encourage key industry sectors to prepare their own greenhouse gas reduction plans. And we must...remove the barriers to the most energy efficient usage possible. There are ways the federal government can help industry to achieve meaningful reductions voluntarily, and we will redouble our efforts to do so."

-- President Clinton, October 22, 1997

Background:

In his climate change address at the National Geographic Society auditorium on October 22, 1997, President Clinton challenged American industries to develop their own action plans, and he pledged for his Administration to work with state and local governments to remove any barriers to greater energy efficiency. In urging companies to take early action, the President also committed to ensure that firms receive appropriate credit for their achievements.

There are a number of industrial sectors that have expressed interest in working with the Administration on climate change policy, although some are more advanced in their thinking than others.

- The Task Force convened interagency meetings last fall with three sectors that were prepared to make proposals to the Administration: steel, cement and airlines. Natural gas, renewable and energy efficiency firms continue to want to play a key role.

- Task Force and agency staff had very productive individual meetings last fall with electric utilities, pulp and paper, natural gas and a couple of petroleum companies. Although they are still trying to evaluate their posture toward the issue in the wake of the Kyoto agreement, there are progressive companies in each sector that we should engage soon to help influence the evaluations others are making.

- Since the Kyoto Conference, other key sectoral players have stepped forward to express interest in being involved: appliance manufacturers, chemicals and aluminum.

- Additionally, the Administration has good relations with a set of industry leaders active in the President's Council on Sustainable Development, DOE's Industries of the Future and Climate Challenge programs and EPA's "Green" and Climate Wise partnerships.

Besides these groups, there are other important industries that are likely to be interested in participating as this effort matures.

I. PROCESS

A. In General --

1. Goals The consultations should maintain a clear focus on enabling industries to

meet the President's challenge of developing early voluntary action plans within nine months. Industries will be encouraged to make commitments as close as possible to the Kyoto target. Also, firms will be the most forthcoming if meetings are designed to --

- strategize on removing barriers;
- assure early credit;
- and inform federal climate policy development (e.g. the $6.3 billion incentive package; the emissions trading program design; federal energy use; and the ongoing international negotiations).

2. CEO Vision — The consultations will be most successful if those active in the discussions have directions from their CEO's. (The alternative -- if they do not have CEO cover for what they are doing, they will be conservative.) Prior to sectoral meetings, a senior White House or Cabinet official [or a high-level former CEO] should speak with at least two key CEO's about the talks in order to assure their engagement.

3. Crosscutting — There will be a crosscutting effort to cut across all groups on some overall design questions. This could assure that each group benefits from lessons of the others, and it could help us achieve a coherent overarching policy structure. The issue of credit for early action and perhaps emissions trading will be discussed in separate, expedited inter-agency forum.

4. Agencies — From the onset, the effort needs to take advantage of agency expertise and abilities, particularly their strengths to carry out follow-up actions.

B. Operational Considerations

1. Background Analyses

Documents will be prepared for each sector compiling background information currently available in the agencies. These papers will be used to inform the Federal teams and provide some basis for discussions with the private sector.

2. Scoping Mtg. — We should convene a small "scoping group" to plan each consultation. It should contain a few select industry leaders combined with a few federal experts. This group can help strategize about the best way to frame questions, how the effort should be defined for that sector, and how to ensure the best outcomes.

3. Attendance — We should be inclusive of as many companies as possible. Pending review of FACA requirements, the meetings would be more constructive if they were "off the record." It might also be useful to have a follow up meeting to vet any ideas with others involved with the sector (academics, labor leaders and public interest groups).

On the federal side, we should assemble expert teams from relevant agencies (Energy, EPA, Commerce, Agriculture, Transportation, Defense, Interior, NASA, State, USTR, AID) and White House offices (NEC, CEQ, OSTP, OMB, NSC). We should select a leader for each sectoral team to help focus activities, drive the process and serve as a point of contact.

4. Guidance — Sectors will be asked to prepare in advance of the consultations information on industry historical emissions, future trends, and potential reductions. For example, they could determine what the industry's baseline was in 1990 (or 1995 for those gases), what the scenarios are for 2008 to 2012 and what actions could bring the greatest improvements on those scenarios. It could also be beneficial to review the industries' competitive situation in the international economy, its business trends (including energy and environment) and its research and development plans. The ultimate goal is to reach agreement on a voluntary reduction plan, either collectively or individually.

4. Industry Kick-Off

After the scoping meetings, the next activity will be a kick-off meeting with industry. The wider industry membership and the Federal teams will attend to describe the process to the private sector and to set the timeline for action. When industry has had time to draft a preliminary commitment, the Federal teams will follow-up, review the plans and respond to agency requests.

5. Follow Up — The federal team should ensure that ideas are submitted for expedited consideration in the policy process. Agencies should have primary responsibility to carry out follow-up activities, pursuant to their proper authorities, under coordination by White House offices.

C. Time Line

The following time line describes the actions and responsible parties for four major activities: initial preparation, scoping meetings, industry consultations, and agreements and follow-up.

1. Initial Preparations (present -- early March)

Goal: To prepare the Federal government to effectively engage the private sector.

(1) Prepare planning documents that will be used as templates to guide the consultations for all sectors.

• Finalize template for Sector Analyses; analyses will include sections on sector emissions, options for emissions reductions, current sector activities, and barriers to or opportunities for emissions reductions.

WHCCTF: 3/2

• Draft Sector Analyses for 1-2 sectors; assignments made for agency leads for remaining sectors

Agencies (DOE/EPA): 3/2

• Draft questions to be addressed in consultations

WHCCTF: 3/2

(2) Establish Federal leadership structure

• Assemble an Assistant Secretary Council, with representatives of each relevant agency, to give oversight and guidance.

WHCCTF/Agencies: late February/early March

• Establish technical teams from the agencies to be responsible for each sector

WHCCTF/Agencies: late February/early March

(3) While consultations will occur with the full list of industries categorized in the scoping paper, initial meetings will proceed in a phased manner to immediately address those industries who are already close to making voluntary commitments to reduce emissions.

• Narrow the list of industries to 6-8 for Phase I of scoping meeting and full consultations; determine broad strategy for remaining sectors on the list

WHCCTF/Agencies: early March

Preliminary list: steel, airlines, electric utilities, aluminum, pulp & paper and cement; possibly buildings, autos, chemicals, fleets, electronics

• Select a member of the Assistant Secretary Coucil to join each sector group

WHCCTF/Agencies: early March

• Draft Sector Analyses for 6-8 sectors prepared and approved

Agency leads: second week of March

(4) Present work to Assistant Secretaries Council for discussion

WHCCTF/Agencies: second week of March

2. *Scoping Meetings with Phase I Industry Sectors (March)*

Goal: To plan industry consultations in conjunction with representatives of each sector.

(1) Establish contact with selected sector CEOs through calls and/or meetings with Cabinet members or other senior White House personnel. Timing might vary from sector to sector and could be held before or parallel to scoping meetings.

• Contact at least two CEOs from each sector to assure their engagement.

WHCCTF: varies

(2) Hold a preliminary, scoping meeting with a subgroup of each industry sector leaders to help plan the full industry consultations. It will be important to have appropriate industry people at these meetings who have the ability to at least informally speak for their CEOs and/or industries.

- Identify a small number of principal players in each sector from the private sector
  Agency leads: early March

- Draft agenda for scoping meeting to include discussions on the structure of the consultations (agenda, questions, etc.), participants, and review of draft sector analyses
  WHCCTF: early March

(3) The scoping meetings could probably be done in two weeks, holding about three each week.
WHCCTF/Agency teams: 3/15 - 3/30

(4) Roll-out event to lay out plans (vision, scope, time table)

- Two parts: POTUS or VPOTUS meeting with CEOs followed by a larger briefing of DC representatives from key sectors
  WHCCTF: mid to late March

(5) Input from labor and environmental groups is also highly desirable. Teams for these "sectors" will also be assembled, and their efforts will be incorporated into the industry consultations.

3. Industry Consultations (April -- August)

Goal: To encourage voluntary emissions reductions commitments from the industry sectors, improve understanding of technology opportunities, and identify and reduce barriers to these reductions.

(1) Before the start of the Phase I consultations, the input from the scoping meetings should be incorporated into the Sector Analyses.

- Finalize questions for industry and other inputs for consultations
  WHCCTF/Asst Sec Council: 4/15

- Using the other documents, draft an options workbook matching barriers and potential opportunities with existing options available to sectors (inventory of Federal "carrots")
  WHCCTF/Asst Sec Council: 4/15

(2) The actual industry consultations will involve as broad a participation within each sector as possible. The consultations will require a series of meetings. First, an industry kick-off to present charge to full industry membership. Second, meetings with Federal teams to review commitment plans and plan implementation.
Agency teams/WHCCTF: 1st set, end April - late May; 2nd set, July - early Aug.

(3) At the earliest appropriate time, the labor and environmental groups will be incorporated into the process. Their exact participation may vary from sector to sector.

(4) We will also convene consultations with industries offering technological solutions ina way that informs and enhances the emission reduction agreements with emitting industries. These may take the formof separatemeetings, depending on what works best with a given sector.

(5) Industry teams will present draft agreements to the Assistant Secretary Council.
Agency leads: end August

4. Agreements and Follow-Up (September -- October)

Goal: To ensure agreements are finalized and set into motion.

(1) The draft agreements will include responsibilities/activities for both industry and Federal agencies. The industry section will include their commitments on emissions reductions. The Federal agency section would include the help already available to sectors and potential agency actions to address barriers identified. Ideally, endorsements from labor, environments and some relevant state agencies will be solicited.
Agency teams: September

(2) A roll-out event by senior administration officials with presentations by industry and by agencies.
Mid-October

(3) Continue work on remaining industries, beginning a second phase of scoping meetings and full industry consultations.
End of October

II. SPECIFIC GROUPS

There are specific players in key industries that can provide important inroads into most of the major emissions sectors. I would recommend that we begin consultations with the groups that have already expressed interest (Phase I). As we build a track record of success, it will be easier to bring others on board.

Phase I Sectors

Energy Intensive Industries
Seven industries emit 50 percent of the greenhouse gases from the industrial sector (which is a full third of the emissions from end use sectors). Four of these are being considered for inclusion in the first phase of consultations. In addition, the carbon dioxide released during the calcification process means that the cement industry is also included here.

1. Steel
2. Aluminum
3. Pulp and Paper
4. Chemicals
5. Cement

Electric Utilities/Fuels/Buildings
Electric utility emissions comprise one-third of U.S. source emissions. The fuels producer and building sectors crosscut all the industry sectors listed, but none of the fuels producers are likely to be addressed during this first phase.

6. Electrics
7. Buildings

Transportation
The transportation sector represents a final third of U.S. end use emissions. Especially in the case of automobiles, the presence of so many individual emitters will prove extremely challenging.

8. Airlines
9. Automobiles
10. Fleets

Future Growth Industries
Industry sectors whose emissions are projected to rise in the future also need to be a part of the consultations.

11. Telecomm/ Electronics

Phase II Sectors

Energy Intensive Industries
12. Glass
13. Foundries
14. Refineries

Electric Utilities/Fuels/Buildings
15. Natural Gas
16. Renewables
17. Efficiency
18. Mining

Transportation
19. Railroads

Other
20. Appliances
21. Vendors
22. Agriculture

III. Addendum

A: Industry Plans for Early Reductions -- A one-page summary description
B: Questions for Industry -- Sample questions to be considered by industry

ADDENDUM A: INDUSTRY PLANS FOR EARLY REDUCTIONS

Draft: March 4, 1998

We must continue to encourage key industry sectors to prepare their own greenhouse gas reduction plans. And we must ...remove the barriers to the most energy efficient usage possible. There are ways the federal government can help to achieve meaningful reductions voluntarily, and we will redouble our efforts to do so."

-- President Clinton, October 22, 1997

GOAL:
Develop plans of action to achieve early voluntary reductions in greenhouse gas emissions in key sectors of the economy with the goal of making as much progress as possible toward the targets set in Kyoto.

RATIONALE:
To the extent that cost-effective reductions in greenhouse gases can be achieved in the near to medium-term through voluntary efforts, the burdens associated with meeting future targets will be reduced and the rate of build-up of greenhouse gases will be slowed.

INDUSTRY'S ROLE:
To develop a plan for reducing greenhouse gas emissions beyond "business as usual." Building on existing government-industry partnerships, the plan should identify:

- an emissions reduction goal;
- the path forward for achieving that goal using cost-effective measures;
- barriers to achieving reductions that could be removed;
- incentives that could be created to encourage such reductions;
- possible changes in federal procurement or practices;
- options for reducing emissions through trading or sequestration;
- opportunities for achieving reductions abroad; and
- a longer-term research and development strategy.

FEDERAL GOVERNMENT'S ROLE:
To facilitate the development and implementation of industry plans by:

- inventorying existing programs and resources with the potential to reduce greenhouse gas emissions;
- where appropriate, provide collaborative support to facilitate a broad based industry dialogue, to contribute technical and analytic assistance, and to provide other assistance in the development of industry plans for early action;
- working cooperatively, wherever possible, to remove barriers and create new incentives for reducing emissions; and
- developing guidelines for early credit for qualifying reductions.

WHY PARTICIPATE:
Participating industries will be able to jump start their search for low cost reductions, benefit from federal support in such efforts, and be poised to help shape and take advantage of credit for early actions.

TIMETABLE:

Kick-Off Meetings with Initial Sectors	March-April
Plan Preparation	April-August
Initial Sector Plans Presented	September-November
Additional Plans and Implementation.....	November and beyond

ADDENDUM B: QUESTIONS FOR INDUSTRY

Draft: March 4, 1998

BACKGROUND

- Describe the nature of the industrial sector. Include number and size of firms, industrial output and sales, overseas investments and exports, and a general description of the economic forecast for the industry including future sales and any projected changes in structure, technology or market position of the industry.

- Identify current sources of greenhouse gas emissions. Where possible, include estimates of baseline emissions and of projected future emissions. Also, specifically identify energy use (total and per unit of output).

- Discuss technological options for greenhouse gas reductions (e.g. energy efficiency or renewable energy). This would include an estimate of relative cost effectiveness of options identified. Options that sequester greenhouse gases may also be included here. Include existing activities, especially those in partnership with government, to reduce emissions of greenhouse gases.

- Explore ways to include labor and environmental group leaders (or other relevant parties outside the industry) in the process.

EMISSIONS REDUCTION GOAL

- Decribe in detail the emissions reduction goal in relation to the Kyoto baseline, including the time frame for achieving the reduction. Identify which companies within the industry are cooperating to achieve the goal.

- Identify emissions reductions that would be possible before the first Kyoto budget period if credit for early action was available.

- Include an action plan showing the actions to be taken by industry and how the goal will be achieved.

- Identify barriers to achieving reductions and who might remove them. Include potential incentives to encourage reductions that could be created and who might create them. Focus on possible changes in government (Federal, state or local) practices or procurement.

- Identify long term R&D needs to achieve additional reductions in greenhouse gas emissions for the industry.

- Identify the impacts on competitiveness, productivity, jobs, further environmental benefits or other auxiliary outcomes from meeting the greenhouse gas emissions reduction goal.

September 25, 1997

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MEMORANDUM FOR TODD STERN, GENE SPERLING, KATIE MCGINTY, & DAN TARULLO

FROM: DIRK FORRISTER

SUBJECT: FRIDAY'S ROOSEVELT ROOM MEETINGS ON CLIMATE CHANGE

Following the meeting held last week with representatives from electric utilities, two additional meetings with industry representatives have been scheduled for Friday, September 26th. A meeting at 9 am includes a group of industries representing manufacturing firms with generally moderate views on climate change. A second meeting at 3 pm will include chemical companies and representatives from other energy-intensive manufacturing industries. Both meetings will take place in the Roosevelt Room. This memo provides background information on the companies attending these meetings and the issues they are likely to raise.

1. AGENDA

The meetings will cover two major topics, plus any other topics you or the participants want to explore in the time available.

* International Framework: what do they view as the critical elements for the Protocol that would garner their support? What do they view as "deal breakers" in terms of their ability to support? What type of target/timetable could they support (or at least not oppose)?

  -- These firms represent a wide range of positions. Some support only voluntary actions and nothing else. Many support key elements of our current negotiating framework (e.g., emissions trading, joint implementation, multi-year budget period, and greater actions by developing countries.) This group is very concerned that we will compromise or walk away from these issues in order to get a deal in Kyoto.

  -- There is some support for a binding target in this group, but only if all the other parts of the framework are achieved. Others that could be convinced to support a reasonable target have been disappointed in the lack of any Administration economic analysis underlying the selection of a target. Most would prefer a longer period for a target to facilitate capital stock turnover.

* Early Action Incentives: is there some way to advance an early action program as part of the president's policy announcement? Is there some way to reconcile industry's interest in undertaking early action with the uncertainty about domestic policy design? Most of these companies have participated in actions aimed at reducing emissions under the President's Climate Change Action Plan. Many believe that more can be achieved, but they fear that, in the absence of a clear domestic program, further reductions achieved might only make it more difficult to comply with future required targets. These companies also fear that they will be singled out to carry more than their fair share of emissions reductions. Because they are already heavily regulated industries, they view themselves as easy targets for greenhouse gas reductions, particularly if reductions from the auto sector are not achieved for political or other reasons.

2. Participants

1. Friday, 9 - 10 am

MOTOROLA CORP.

Richard Guimond, Corporate Director: leading manufacturer of electronic goods. They generally have a strong environmental, are participating in a voluntary program to reduce greenhouse gases from the chip manufacturing process, and refused to sign the BRT advertisement. They generally favor cost-effective, market-based solutions and have concerns about international competitiveness. They are sensitive to the concerns of their major customers, but want to see a responsible response to deal with the threat of climate change. Rich is a former DOE and EPA official in the hazardous waste field.

BALLARD POWER SYSTEMS

Scott Weiner, President: leading developer of proton exchange membrane fuel cells. It has formed a strategic alliance with Daimler Benz to commercialize fuel cells for the transport sector and has been participating in PNGV program. It is also working with GPU International to develop fuel cells for stationary electric power applications, with a field trial of a 250 kilowatt power plant scheduled for 1999 and commercial production during 2001. Scott is a former New Jersey environment commissioner and former executive with General Public Utilities.

UNITED TECHNOLOGIES

Judith Bayer, Director, Environmental Government Affairs: with annual revenues of $23.5 billion, UTC provides a broad range of high-technology products to the aerospace, buildings and automotive industries. Major business lines include: Pratt and Whitney engines, Carrier heating and air conditioning systems, Otis elevators, Sikorsky helicopters and International Fuel Cells. They are members of the International Climate Change Partnership. Because Carrier's products rely heavily on HFCs, they feel strongly that any climate treaty should include all gases in a single

basket and not contain specific policies and measures. They are also interested in any federal policies that could spur sales of fuel cells.

AMERICAN STANDARD COMPANIES

Jim Wolf, Vice President, Government Affairs: the world's largest producer of bathroom and kitchen fixtures, one of the world's largest manufacturers of heating and air conditioning systems, and a major supplier of vehicle braking and control systems. Worldwide sales in 1996 were $9.6 billion. They are a member of both the in International Climate Change Partnership and the Business Council for Sustainable Energy. As a manufacturer of energy efficient equipment, they have been a leading supporter of taking near-term actions to reduce emissions of greenhouse gases. They also support emissions trading and joint implementation, budget periods, and treating all gases within a single basket. They strongly oppose harmonized policies and measures.

HONEYWELL CORP.

Glen Skovholt, Vice President: Mike Bonsignore attended the CEO meeting with the President and is a supporter of action to address climate change. With sales of $7.3 billion, the company is a world leader in energy efficiency technology. They have been an active participant in Green Lights and Energy Star voluntary programs. While it has a lot to gain from any actions that spur growth in energy efficiency technologies, it is careful in the political debate to avoid offending its major customers in the automobile, oil and utility industries. Honeywell is a member of the Business Council for Sustainable Energy.

AT & T

Alice Borrelli, Director: While they have not been active on the issue of climate change, AT&T believes that the scientific case for action is strong. They did not sign the Business Roundtable ad calling for more research before taking action. They believe that the electronics and communications sectors could benefit from actions to reduce greenhouse gas emissions. They support efforts to bring the larger developing countries into the process.

GENERAL ELECTRIC

Larry Boggs, Legislative Counsel: has many business units that would be affected by climate change. GE is a major manufacturer of energy consuming appliances, is the parent company of Employers Reinsurance, and is a major supplier to the automobile and aerospace industries. GE is a member of the International Climate Change Partnership.

ALLIED SIGNAL

Joseph McQuire, Director, Environmental and Legislative Affairs: is a chemical producer and manufacturer for the automotive, aerospace and utility sectors. Allied has sought to play a

moderating influence on this issue among major manufacturing firms. They believe that climate change must be addressed but support a moderate approach to any agreement including reliance on market mechanisms such as emissions trading. They have been involved in several "green programs" under the Climate Change Action plan where they have technologies capable of reducing greenhouse gas emissions. They are a member of the International Climate Change Partnership.

INTEL CORPORATION

Tim Mohin, Manager, Government Affairs: the world's largest chipmaker and a leading manufacturer of PC, networking and communication products. Intel has been actively involved in a number of voluntary programs to reduce greenhouse gas emissions, but has not taken an active role on climate policy issues. They manufacture computers under the "Energy Star" label that "sleep" when inactive, substantially reducing energy consumption. They are also participating in an industry research program aimed at reducing or eliminating PFC emissions (a potent greenhouse gas) from the chip manufacturing process. They would like any international agreement to include flexible measures that allow for cost-effective reductions and that require actions by developing countries.

BRITISH PETROLEUM

Bruce McCrodden, Vice President, External Affairs: The President of BP America and the CEO of BP (John Browne) have been outspoken advocates of actions to reduce greenhouse gas emissions. In a speech this week, John Browne spoke out in support of taxes to reduce greenhouse gas emissions. BP is also expanding its own emissions trading and joint implementation activities. BP chairs the International Climate Change Partnership.

INTERNATIONAL CLIMATE CHANGE PARTNERSHIP

Kevin Fay, Executive Director: comprised of approximately 35 companies and associations, this group represents a relatively moderate position on climate change. Members include chemical companies, air conditioning and refrigeration manufacturers, aerospace companies, and one oil company (BP). They seek to balance recognition that the science compels some action with the need to take sensible, cost-effective steps that will not prove burdensome to their companies. They generally have been supportive of the proposed U.S. framework, but remain concerned that we will not achieve key elements of our proposal, but will sign an agreement in Kyoto anyway. They are seeking assurances that we not back down from our proposals. They are interested in the possibility of an expanded voluntary program to achieve nearer-term reductions, but are concerned that any program must insure that investments in reductions are counted toward any future obligations incurred by their firms.

BUSINESS COUNCIL FOR SUSTAINABLE ENERGY

Michael Marvin, Executive Director: Members include companies that manufacturer energy efficiency equipment and alternative sources of power. They represent those firms that stand to gain markets from any actions that restrict greenhouse gas emissions. As such, they have been active in promoting early action and have strongly supported the U.S. position on emissions trading and joint implementation and realistic binding targets. They have urged actions by 2005 and are very concerned that any target that extends significantly beyond that will not be taken seriously by industry or consumers and will undermine efforts to reduce emissions and advance technology in the near term.

II. FRIDAY 3 pm MEETING -- PARTICIPANTS and COMPANY PROFILES

Alcoa

Marcia Dalrymple, Manager, Government Affairs

Headquartered in Pittsburgh, Alcoa is one of the world's leading producer of aluminum and alumina and has sales of $13.1 billion. Whether it will be easy to scale-up trading to deal with carbon emissions remains an open question in their view. Alcoa has been an active participant in two of EPA's voluntary programs: Green Lights (energy efficient lighting) and the Voluntary Aluminum Partnership (reducing chemical emissions from the smelting process). Alcoa has experience in the acid rain emissions trading program; they opted in as a large industry generator.

Paul O'Neill, Alcoa's CEO, joined the President and Vice President for the August 4 CEO meeting. He is concerned that policy-making should not get ahead of sound science and he is advocating a focused research effort aimed at resolving uncertainties. They are concerned about competitiveness impacts related to developing country obligations, but don't have a view yet on the details of those obligations. Alcoa wants to work with us to help shape policy on climate change.

FMC Corp.

Harold S. Russell, VP, Government Affairs

Based in Chicago, FMC is a diversified supplier of chemical products, agricultural chemicals, precious metals, defense systems, automobile components, food machinery, petroleum equipment and specialized machinery. With annual sales topping the $3 billion mark, FMC ranks as a Fortune 150 company. International sales to more than 100 countries account for more than one-third of their total annual revenues.

Robert Burt, CEO of FMC, chairs the Business Roundtable's Environment Committee and climate change initiative. The Business Roundtable has said that we need a much more extensive policy dialogue before we make final decisions regarding targets and timetables. Burt is unconvinced that we need targets and timetables at all. Burt has taken moderate approaches on other environmental issues

like Superfund and TRI and has been willing to take reasonable positions that draw fire from hard-line colleagues. He has taken interest in the potential for voluntary action to play a role in our final domestic policy.

Bethlehem Steel

Maurice (Mo) Ernest Carino Jr., VP, Federal Government Affairs

Bethlehem Steel is headquartered in Bethlehem, PA, with major plants in MD, IN, PA, upstate NY, and MS, and a coal mine in West Virginia. In 1996, they achieved sales of almost $4.7 billion. They are the nation's largest producer of plate steel, most of it in the higher value grades required for the more demanding industrial uses. They are also a leading supplier of railroad rails to the rail transportation market and large diameter pipe to the energy market. One of their main economic issues are tremendous heath care and pension liabilities. Since 1978 they have reduced their energy use by 40% and have recently restructured. Bethlehem has also endorsed the CERES Principles.

Bethlehem's CEO is the Chair this year of the American Iron and Steel Institute (AISI). His number one climate issue is developing countries because of their steel production. Flexibility is important as well. Regarding targets and timetables, they are concerned about the impact on growth of a carbon cap. In addition, at the meeting with the President, he emphasized the importance of voluntary programs. Credits for early reduction is very important because they have achieved reductions since 1990. At a meeting yesterday, AISI told us that they could achieve a 10% reduction from 1990 levels by 2010 through voluntary programs.

DUPONT CORPORATION

Tom Jacob, Environmental Manager

A major chemical producer (including HFCs) and the parent company to Consolidated Coal. — Dupont is a major contributor to greenhouse gas emissions. DuPont was a leader in recognizing the scientific case demanded action to phase-out CFCs. In the case of climate change, they believe that John Browne of BP got it right when he said that significant uncertainties remain, but that prudence supports taking some actions now. They are very concerned that this issue is getting highly politicized on both sides and look to the Administration to provide bipartisan science-based leadership. They are also concerned that if actions are taken that all industries should be required to contribute in an equitable manner and fear that the chemical industry may be an easier target that some other sectors (e.g., autos or buildings). They are currently exploring possible ways to structure voluntary programs to achieve meaningful actions while safeguarding investments.

ENRON CORP

John Palmisano, Director, Regulatory Affairs:

Ken Lay attended the CEO meeting with the President and was supportive of action to address climate change. With annual revenues of $13 billion, Enron is a diversified energy company with one of the world's largest natural gas pipelines, an active wholesale electricity brokerage business, major investments in solar and wind technologies, and the recent purchaser of Portland General Electric Utility. Enron has also been an active trader in sulfur dioxide allowance market and strongly supports joint implementation and emissions trading. They believe action in the nearer-term is critical to sending the proper signals to the market place. Enron is a member of the Business Council for Sustainable Energy. John left EPA after helping design the earliest EPA emissions trading programs and established his own trading company which ultimately was purchased by Enron.

Georgia-Pacific

James E. Bostic, Jr., VP

Georgia-Pacific, headquartered in Atlanta with $13 billion in annual revenues, ranks first nationally in the production of structural and other wood panels and second nationally in lumber, owning six million acres of timberland. They own the world's largest building products distribution system. 1996 was a very challenging year for Georgia-Pacific, because of the most dramatic price collapse ever in commodity pulp and paper markets.

On climate change, Georgia-Pacific is positioned with some unique opportunities: forest sequestration and producing energy from biomass waste or crops. They are concerned about potential international competitiveness impacts, if energy prices rise dramatically with climate policy, but are interested in working constructively on a reasonable outcome.

Weyerhauser

Gary D. Risner, Federal Environmental Regulatory Affairs Manager

Weyerhauser is one of the largest forest products companies in the world. Weyerhauser operates more than 130 manufacturing facilities and employs 39,700 people in North America. They also have sales offices in Asia and Europe. Their headquarters are in Federal Way, WA. Their main business units are Timberlands (producing wood and wood fiber); Wood Products (producing softwood lumber, plywood and veneer; oriented strand board, composite panels, hardwood lumber and doors, and wholesale building materials); Pulp, Paper, Packaging and Recycling (market pulp, newsprint, bleached paperboard, printing and writing papers, container board and corrugated packaging, and collection and marketing of recyclables, chemicals); Weyerhauser Real Estate, and Weyerhauser Mortgage.

Regarding climate change, Weyerhauser supports the American Forest and Paper Association's Global Climate Change Position statement, which says that:
--Any new treaty must involve all countries including the developing nations.

--Biomass fuels combustion must continue to be considered a net-zero greenhouse gas contribution
--Any treaty must recognize the positive effects of active forest management
--Carbon storage in forests and wood products must be better recognized
--Climate science must be subjected to periodic review by peers and all stakeholders
--Treaty participants must assure consistent reporting and enforcement in all countries

Weyerhouser also believes that flexible, incentive based approaches can be appropriately utilized to encourage world-wide participation in reducing greenhouse gas emissions. Pushing for mandatory emissions reductions in the short term may not be required and could be potentially damaging to the US economy. A better approach is to continue global scientific studies with ongoing climate change verification while stimulating incentive based technology development to meet long term emissions reduction requirements and time schedules.

Holnam Inc.

David Rinas, Sr. Vice President

Holnam is the largest cement manufacturer in North America. Headquartered in Michigan, Holnam has manufacturing facilities, distribution centers and marketing offices spread throughout the United States. Holnam is a private company, wholly owned by Holderbank Financiere Glaris, which is the world's largest producer of cement and related construction material. Holderbank is headquartered in Switzerland and is publicly traded on stock exchanges in Zurich and London.

Holnam has been very proactive on climate change. They claim that we could reduce CO2 emissions from cement production cheaply and easily by increasing the use of cement substitutes. The U.S. is behind the rest of the world in the utilization of substitutes. Holnam wants the federal government to encourage the use of substitutes and overcome the market barriers -- we are reviewing these proposals at present.

Trigen

Thomas R. Casten, President and CEO

Trigen is recognized internationally as a leader in district energy systems. (District energy applies economies of scale to heating and cooling buildings. A central plant produces chilled water, hot water or steam and pipes it to a number of buildings, thus eliminating the need for individual boilers and chillers.) The company has developed and operates 11 district energy systems in North America that provide economical and environmentally responsible heating and cooling to municipalities, commercial buildings, institutions and industry. Trigen is based in White Plains, NY.

Trigen believes that the Administration's first act on the road to Kyoto should be to seize the low-hanging fruit represented by combining production of heat and power. More than two-thirds of the energy produced by burning fossil fuels for electricity is discarded as waste heat. Trigen's

own analysis indicates that combining heat and power generation could drop the United States' output of CO2 well below 1990 levels.

Owens Corning

John D. Hopkins, Jr., VP, Legislative Affairs

Headquartered in Toledo, Ohio, Owens Corning is a $3.8 billion, publicly held company of 19,000 people with manufacturing, sales and research facilities, including joint venture and licensee relationships, in more than 30 countries worldwide. Originally a glass company, the company now offers a diversified array of products, including complete building materials systems, advanced glass fiber used in more than 40,000 composite end-use applications from skis and golf clubs, to bridge decking and transmission towers, to automobiles, computers, and fiber optic cables, and large-diameter pipe used to build the infrastructure of developing nations.

Owens Corning joined in the insulation industry's Lisbon Declaration on CO2 reductions. It says that the greenhouse effect requires urgent action, and that there is massive potential for energy savings in space heating through the use of proven thermal insulation technology. It says that 133 million tons of CO2 could be reduced if all American homes were to be insulated to the Council of American Building Official's 1992 Model Energy Code. On the other hand, Owens Corning signed the BRT ad. Joint implementation is especially valuable because the quality of building stock in Central and Eastern Europe is poor.

Dow Chemical

Paul Cicio, Global Issues Manager/Government Affairs

Dow is the sixth largest chemical company in the world, operating in 157 countries. Headquartered in Midland, MI, they have sales of $20 billion a year. Dow is the largest producer of plastics in the world. Dow is also one of the largest energy consumers in the world. Dow has 323 operating facilities globally, including plants in about 20 states in the U.S. Over 90% of their energy consumption is through cogeneration. Dow is the only company (to their knowledge) who has committed to a 20% energy efficiency improvement over the next ten years (2% per year; about twice as high as the national average.) Dow has made voluntary commitments to reduce energy use in the U.S., Canada, Germany, and the Netherlands.

Regarding climate change, Dow strongly supports actions to reduce energy use. Dow believes tough decisions on the treaty should be delayed until the science and economics are better understood. Dow is supporting more meaningful dialogue with the U.S. government regarding what it is we truly need to do without losing competitiveness.

Whirlpool

Michael Thompson, Director of Government Relations

Whirlpool is the world's leading manufacturer and marketer of home appliances. Headquartered in Benton, MI., the company manufactures in 13 countries and markets products in more than 140 countries. In the last 8 years, Whirlpool has grown from a primarily U.S. manufacturer to a global company employing some 50,000 people on four continents. Whirlpool was the first company to develop and implement a CFC recovery and recycling for refrigerators. In 1994 Whirlpool began producing the refrigerator that won the Super Efficient Refrigerator Program (SERP) contest sponsored by U.S. public and private utilities. Whirlpool is also a voluntary participant in EPA's 33/50 program.

Whirlpool has not been active on the climate change issue. It is a Republican bedrock company from the midwest. They signed the Business Roundtable ad. They are a company that should be better off under climate change restrictions, because they typically make the most efficient products in the appliance industry. They may still harbor some bitterness toward the Administration because they were unhappy that DOE took so long to complete the refrigerator appliance efficiency standards that Whirlpool lost its technological head start. They use refrigerants (HFCs) that would be covered under our proposed "comprehensive" approach and strongly oppose any harmonized policies and measures. They are a member of the International Climate Change Partnership.

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Sherri Goodman, Defense
Fred Hansen, EPA

Number of Pages (including cover): 15

Date: June 20, 1997

I thought you would be interested in the following testimony on climate change, which I delivered yesterday to the Senate Committee on Foreign Relations.

TEW

Testimony of Timothy E. Wirth

Under Secretary for Global Affairs

Department of State

Before the Subcommittee on International Economic Policy, Export and Trade Promotion of the Senate Committee on Foreign Relations

June 19, 1997

Good morning, Mr. Chairman. I am pleased to join you this morning to discuss the importance of climate change and to outline the United States negotiating position as we move toward December's multi-national conference in Kyoto.

Climate change is probably the most important environmental challenge facing the world. The ecological, human, economic and political consequences are of enormous importance for the mid-term and for the long-term – and each of us needs to understand them. We look forward to active and frequent consultations with this Committee and with the other members of Congress as we seek to reach an agreement and as we set up the needed long-term process.

The Science

I want to begin with the science – because scientists were the ones who drew our attention to climate change in the first place, and because we continue to base our policies on the best evidence and the most rigorous scientific analysis available.

Let me highlight some of the key scientific issues on which there is a global consensus:

- human activities have significantly increased the atmospheric concentrations of greenhouse gases over the last century.

- global average temperatures have already increased by about one half to one degree Fahrenheit.

- the balance of evidence suggests a discernible human influence on global climate.

- projections of the future change, based on complex climate models and on our best understanding of the physics of the climate system, suggest an increase of another 2 to 6 ½ degrees Fahrenheit by 2100, with an average greater than any seen in the last 10,000 years.

- Sea levels are projected to rise an additional 1 ½ feet by 2100, from expansion of the oceans due to global warming, and from a melting of glaciers and ice sheets.

- Climate change is likely to have wide-ranging and mostly adverse effects on human health, with direct and indirect effects leading to increased mortality.

- Coastal populations and infrastructure are vulnerable: a 20 inch rise in sea levels would put about 100 million people at risk each year from storm surges, with significant costs.

- Natural and managed ecosystems are at risk as ideal ranges shift with the climate. The location of forest and agricultural zones will change significantly.

- Future unexpected changes in the climate are not included in the models. These surprises may have impacts of global magnitude such as fundamental changes in global ocean circulation or ecosystem behavior.

These are the conclusions of the Intergovernmental Panel on Climate Change -- an international body of more than 2500 scientists, expert in all aspects of climate change, including the physical sciences, the social sciences and the economics. U.S. government experts have endorsed their work, as have the academic communities in the United States and around the world.

An excellent summary of the science and the impacts that could occur as a result of global climatic disruption was presented yesterday on behalf of nearly 2500 leading American scientists and I would like to include their statement for the record.

We do not yet have all the answers with respect to the science. We cannot yet say with certainty what the local effects of climate change will be. But, with better scientific data, the picture is becoming clearer.

For instance, in the United States, twenty inches of sea level rise would inundate 9,000 square miles of U.S. coastal land, with great loss of property and infrastructure. Rising temperatures could double the number of heat-related deaths. We now know that the ten warmest years since records began all occurred since 1980. Some of the most recent data shows that four of the five hottest years have occurred since 1990. With CO2 concentrations doubled in the atmosphere, heat waves like the one that killed around 500 people in Chicago two summers ago would be four to six times as likely to occur.

While we acknowledge uncertainties about where, how fast and when climate change will occur, and while we continue to press for research that will help us to answer these important questions, the basic fact remains that we are having a discernible impact on our climate.

Our policy is based on the current scientific consensus and on the need to achieve the most cost-effective emissions reductions possible. Our policy has three simple and straightforward objectives which are outlined in detail in a framework proposal we submitted to the climate convention in January. The proposal was shared with this Committee and was distributed widely with the public. The three objectives are as follows:

1. We are seeking to establish a legally binding emissions target for developed countries which is verifiable, credible and realistic.

2. We are seeking an agreement in Kyoto that maximizes the flexibility for each country to meet this legally binding target, including through the use of market mechanisms.

3. Third, we recognize the importance of involving all countries in the agreement – and to this end we have incorporated extensive language into our proposal that calls for developing countries to act.

Let me go through each of these in greater detail.

The Target: It is clear that the Framework Convention on Climate Change has not proven adequate to the task of reducing global emissions. We anticipate that only two countries will meet the Convention's non-binding aim of lowering emissions to 1990 levels by the year 2000. We ourselves will miss the aim by about 10%.

We believe a binding legal obligation to act will result in the passage of domestic laws – in all countries – that compel action. In order to build in some flexibility, our proposal calls for the targets to be multi-year in nature. Without this sort of legal obligation, countries will continue to pay only lip-service to their efforts to solve this problem. The past shows this is not enough.

Flexibility: Solving the problem of climate change is a long-term proposition that will require enormous effort over a sustained period. It is therefore vital that we achieve emissions reductions as cost-effectively as possible. Our approach to climate change seeks to do this. We have recommended that each country be given the maximum flexibility to meet its legal obligation. And we have rejected common, harmonized policies and measures recommended by some countries. We have also learned from the successes of the past, and are, wherever possible focusing our efforts on the use of market mechanisms to reduce costs.

One of the most innovative of these is the introduction of "emissions trading" into the lexicon of international agreements. The concept has been successfully used to reduce costs (as much as tenfold) in meeting the standards set for power plant emissions of sulfur dioxide. A similar program has also been successfully implemented in the Montreal Protocol on Substances that Deplete the Ozone Layer. In the climate context, we envision that Parties would be allowed to trade their emissions – seeking to reduce them where it is most cost-effective to do so. While we are still engaged in working through some of the details of how to implement this proposal, it is clear that such a program could significantly reduce the costs; some studies suggest by up to one-half.

Another piece of our strategy on flexibility is joint implementation. Through joint implementation, countries are allowed to undertake emissions reductions

projects in developing countries and count these reductions against their own emissions. We believe that joint implementation holds enormous potential to reduce global greenhouse gas emissions in a cost-effective manner. Joint implementation would also produce other benefits such as encouraging technological innovation, promoting the use of cutting-edge U.S. energy technologies, and protecting forests and other critical habitat around the world.

The U.S. has extensive experience with successful joint implementation projects. Recently, our approach on joint implementation received a major boost when President Clinton received the endorsement of the Dominican Republic and the seven Central American nations to endorse our concept of joint implementation for credit. This is a good example of our commitment to pushing through flexible mechanisms to implement new commitments under the Climate Change Protocol.

Developing Countries: We recognize the importance of including developing countries in this agreement. Their participation is critical to achieving any kind of a lasting success in combating the threat of climate change. For that reason, the participation of developing countries has been a central piece of our own negotiating strategy. We must seek a level playing field in which all countries that contribute to the problem contribute to its solution.

Developed countries, including the former Soviet Union and the countries of Eastern Europe, contribute about 60% of global emissions today, and developing countries account for about 40%. What do these numbers tell us? First, that the developed countries have historically contributed the greatest amount to the current heightened concentrations; we have fouled the nest. But the developing countries are rapidly growing, as are their emissions. The United States, with 5% of the world's population, is the largest greenhouse gas emitter, with more than 20% of the world's emissions. But China is not far behind, and is expected to pass us sometime in the first quarter of the 21st Century, although on a per capita basis, its emissions are projected to be less than one fifth of our own even then.

There is a clear concern about the potential impacts on our international competitiveness. Let me assure you that developing countries are part of our negotiating strategy and they must join us in order to insure that no country suffers significant competitive disadvantage.

We are all in this together, with different histories but with the same future. We pull a heavier oar at the beginning; over time, we all must pull together. Our policy has to be calibrated to reflect this reality. We cannot expect to solve the global problem unless all countries -- developed and developing -- participate in the solution. To this end, we have proposed three separate elements for developing countries in our proposal for Kyoto:

1. We call on developing countries to continue to elaborate on their commitments in the Convention – including by providing information on emissions on an annual basis (the same as for developed countries), and by taking "no regrets measures" (actions which may be valuable in their own right, and which also mitigate climate change). We also call for a regular review of the actions developing countries are taking (again, using a review process similar to that established to assess our own actions).

2. We call on the newly developed countries (such as Mexico and Korea) to take on binding legal obligations to reduce emissions, recognizing that while the targets they adopt may not be the same as our own, such commitments will codify their new status, and differentiate them from the lesser developed countries. We are now working with potential members of this group to seek their agreement on such a step. While by no means an easy task, we believe that in Kyoto, we can find some language to insure that countries in this category will take on commitments that correspond to their more developed status.

3. We call for the negotiation of a new legal instrument which will include legally binding obligations for all countries – including all developing countries – as a next step in the path toward the ultimate stabilization of greenhouse gas concentrations in the atmosphere at a level that is not

dangerous. This step, too, faces significant difficulty in the negotiations leading toward Kyoto.

Finally, I want to take this opportunity to note that one of the most important potential incentives with regard to additional developing country participation--the Global Environmental Facility -- would be seriously undermined if Congress does not fully fund the U.S. contribution to this program. I hope you will support our request of $100 million for the GEF for this year.

Let me close this morning by briefly reviewing for you the negotiating process between now and December 1 – when we meet in Kyoto for the third session of the Conference of the Parties to the Convention.

We have two more one-week officials-level negotiating sessions – the first in late July in Bonn, and the second in late October, also in Germany. During these two weeks we will be examining and negotiating the extensive text, which is a compilation of all the material submitted by all countries. This is an extremely divergent and broad document reflecting many interests around the world and it must be moved toward some consensus.

At one end of the spectrum, reflecting their strong commitment to making an aggressive statement, the European Union has proposed that developed countries reduce emissions by 15 % below 1990 levels by the year 2010. The

Organization of Small Island States has proposed a 20% reduction by the year 2005.

At the other end, reflecting their concerns with the potential impacts of various emission reduction proposals (particularly on reductions in the consumption of fossil fuel), OPEC countries have introduced a proposal that they be compensated for any economic cost they might incur as a result of treaty requirements.

Other countries have introduced recommendations that they be allocated an individualized, different target. This commitment to so-called "differentiation" is not yet defined, but is used by many countries as a first step toward finding their own way of joining the negotiating process.

As we examine these proposals, and develop our own negotiation strategy, we will continue to be guided by our own principles of feasibility and economic opportunity. We are, as you know, doing extensive economic modeling, and we have not yet completed the process. We expect the modeling will soon be completed and available to all interested parties.

I think it is useful as we think about the economic impacts of reducing greenhouse gas emissions that we remember over 2,300 economists, including eight Nobel Laureates, have endorsed a statement which in part states:

"... As economists, we believe that global climate change carries with it significant environmental, economic, social, and geopolitical risks, and that preventive steps are justified...For the United States in particular, sound economic analysis shows that there are policy options that would slow climate change without harming American living standards, and these measures may in fact improve U.S. productivity in the longer run."

I would ask that the economists' statement also be included in the record.

Finally, I should note that we understand that Kyoto is but one more step on the long road toward stabilizing the atmospheric concentrations of carbon and other greenhouse forcing gases. The long-term goal is stabilization of concentrations of greenhouse gases in the atmosphere at an acceptable level. This is a task that must begin now but which will require a sustained effort over the next decades.

Kyoto is a first step, but a very important one. The message that we send, by what we do, is enormously important. We believe we can succeed by:

-- developing new technologies, and thus improving the way we fuel our economy, transport ourselves, and process materials

-- using flexible economic instruments and market mechanisms

-- bringing in developing countries as full partners

-- fulfilling the obligations of our leadership role

And throughout this process, we can continue to promote economic development and improve the standard of living for the American people, while we protect the environment.

It is important, in Kyoto, that we set up a system that will work -- one that will allow us to reduce our emissions at the lowest possible cost so that we can achieve the maximum protection of the environment. And it is also important that we send a clear signal to governments and industries so they can make significant investments in the new technologies that will be required if we are to achieve our ultimate goal. And finally, although those of us in the developed world must take the lead, everyone must participate in moving toward the solution.

I look forward to working closely with you and your colleagues on this most challenging and complex of environmental issues.

Thank you very much and I will be happy to answer any questions you may have.

F41

cc: JS

White House Climate Change Task Force

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

April 9, 1997

Per Alicia & Jeff, Mark will also represent CEA. Called in Mark's name via Mary Washington. JF

MEETING NOTICE

To: **Distribution**

From: **Dirk Forrister** 343-1060

Re: **First Monthly Task Force Meeting**

As you know, Katie McGinty (Council on Environmental Quality) and Dan Tarullo (National Economic Council) established the White House Climate Change Task Force to coordinate communications efforts across agencies in order to support the international negotiations leading up to the Kyoto Summit in December. I appreciate the many words of encouragement and support as we have been getting organized.

I would like to invite you to serve on the Task Force itself, which will meet on a monthly basis to coordinate communications efforts across agencies. If you are not the appropriate representative for your agency, please give me a call to discuss who would be more appropriate. The Task Force will help guide the work of three staff-level working groups: (1.) public communications and education; (2.) congressional affairs; and (3.) media response. Given the importance of this effort, there will be no substitutions for Principals at the Task Force meetings.

The Task Force staff has been working hard to audit our current communications situation and to begin to plan and work with your agencies to implement improved communications about the Administration's policy priorities. In order to develop and finalize our work plan, we need an intensive "kick off" session of the Task Force. After consulting with several of you, I plan to schedule a 3 hour off-site meeting. If you are willing to devote this time and we use it wisely, it should save us many hours of meetings later. The Task Force staff will provide agenda and background papers prior to the meeting to expedite our work.

Given scheduling difficulties, I thought it best to poll Task Force Members on your availability so that we can ensure maximum attendance. Please fill out the attached form with your preferences on meeting times and return it by fax to Mary Washington at the Task Force (fax: 343-1162) by noon Thursday, April 10. Your prompt response will enable us to select a final time and place so that you can plan your schedule accordingly.

I appreciate your interest in this effort. If you have questions, please feel free to give me a call.

RESPONSE FORM FOR TASK FORCE OFF-SITE PLANNING SESSION

Please respond with your preferences by noon Thursday, April 10

Name: _____

Agency: _____

I can be available the following days and times:

____ Thursday, April 17, 3:00 to 6:00 pm

____ Friday, April 18, 9:00 am to Noon

____ Friday, April 18, 2:00 pm to 5:00 pm

____ Friday, April 18, _____ to _____

Distribution:

David Sandalow, CEQ/NSC
Mark Mazur, CEA/NEC
Shelly Fidler, CEQ
Rosina Bierbaum, OSTP
Jerry Melillo, OSTP
T.J. Glauthier, OMB
Alicia Munell, CEA
Jeffrey Frankel, CEA
Eileen Claussen, State
Rafe Pomerance, State
David Gardner, EPA
Mary Nichols, EPA
Marc Chupka, DOE
Kyle Simpson, DOE
Josh Gottbaum, Treasury
Ev Ehrlich, Commerce
Jeffrey Hunker, Commerce
Bill Samuels, Labor
Frank Kruesi, Transportation
Charlie Rawls, Agriculture
Brooks Yeager, Interior
Terry Garcia, NOAA

cc: JY JAT JS AM JK

June 17, 1997

FAX MEMO

TO: Katie McGinty, David Sandalow at CEQ
Dan Tarullo, Mark Mazur at NEC

FROM: Dirk Forrister, Climate Change Task Force

RE: Attachment

Attached is the version of the document that was delivered to Todd Stern. It was shortened per Todd's comments, eliminating the "message" text.

Thanks.

Climate Change: The President Engages the American Public

Overall Goal: Show the American public that President Clinton is determined to combat climate change in a way that deserves broad support and benefits from the involvement of a broad range of participants.

Overall Strategy: A Three Pronged Approach

1. President's Vision Set Forth at UNGASS
2. Engage American Public in National Dialogue
3. Outreach to Policy Community

1. President's Remarks at UNGASS: Intensive Engagement to Chart Path Forward

Goal: Set President's vision for approaching climate change and begin national dialogue, drawing business, labor and environmentalists into a cooperative process on how best to move forward.

2. Engaging the American Public in a National Dialogue on Path Forward

Goal: Elevate public understanding of the importance of changing climate and build support for national policy priorities developed cooperatively through an open dialogue with the range of affected constituencies.

Strategy:

- **Presidential Events:**
  - 3 radio addresses by end of September (first possibly on June 28)
  - Message-of-the-day events; for example:
    - Kick-off of Million Solar Rooftops (Virginia PV plant or sites in SW/West Coast)
    - Visit Chicago's Board of Trade SO_2 Trading Center
    - Visit a GLOBE school site
    - Visit the Denver Clean Car Exhibit at G-8
    - Visit New York Harbor to highlight sea level rise issues
    - Visit National Park where fragile ecosystems are threatened.

- **Vice Presidential Events:**
  - Site visits to technology demonstration projects (e.g. biomass or wind demonstrations in Iowa or Minnesota)
  - Announce a New Clean Cities participant (Houston, Phoenix, New York City)
  - Partnership for Advanced Housing Technology (new development at Stapleton Airport in Denver or southern California/Florida in disaster vulnerable areas)
  - Visit a Federal facility participating in the Federal Energy Management Program

- **Regional and National Workshops**: Conduct three regional conferences leading to a White House Conference. Three to five cabinet members and senior White House staff would participate in each. Conferences conducted in roundtable format, chaired by senior Cabinet members. Each would begin with key presentations, followed by open dialogue. Open to press and encourage live C-Span coverage. Conduct press backgrounders before and after. Involve regional corporate CEO's, academics, environmental & labor leaders, governors, other state & local leaders, religious leaders and members of Congress. All conferences would be comprehensive, but each would have a special focus, tailored to region.

  Locations:

  - East: New Orleans, Charleston, Miami, or the New Jersey shore. Highlight: Coastal storms damage, infectious disease risk and forest system impacts in southern and eastern states.

  - Mid: Columbus, Detroit, Chicago, or Indianapolis. Highlight: Agriculture shifts, coal community impacts, heavy manufacturing impacts and opportunities.

  - West: Sacramento, Phoenix, Portland, Seattle or San Francisco. Highlight: Water resource conflicts, public lands impacts, technology response opportunities.

  - National: White House/DC, Baltimore, Richmond, New York. Highlight: Comprehensive integration of concerns into a need and pathway for action.

3. Outreach to the Policy Community

Goal: Engage policy community (CEOs and Congress in particular) in design of policies that comprehensively address climate change mitigation and that garner their support.

Strategy:

- President and VP should each reserve 10 - 12 slots for climate orientation briefings and meetings with industry leaders between now and Labor Day. Cabinet members should be given key responsibilities for particular sectors/industries. Should schedule in close coordination with National Dialogue meetings. Also encourage Cabinet members to host at least one public meeting and make a major speech.

  - Examples for President: meeting with Nobel laureates, meeting with religious leaders, meet with Congressional leaders to stress environmental imperative.

  - Examples for Vice President: Dinner with Congressional leaders; Lead a Congressional visit with scientific leaders to the Smithsonian's climate change exhibit.

- Industry Roundtables: Series of CEO meetings with POTUS, VP, Cabinet members &

other senior staff. Offer our policy inclinations, get feedback and ask for their ideas on what's missing. Examples:

- Invite Norm Augustine, CEO of Lockhead Martin, to bring 10-15 CEOs of major environmental technology firms for meeting.

- Invite John Browne, CEO of BP, to bring 10-15 oil/gas CEOs for meeting.

- Invite R. Linn Draper, CEO of AEP, to bring 10-15 moderate electric utility CEOs for meeting.

- Invite Ken Lay, CEO of Enron, and Dennis Bakke, CEO of AES, to bring 10-15 independent power developers for meeting.

- Invite Michael Bonsignore, CEO of Honeywell, to bring 10-15 energy efficiency technology firms for meeting.

- Invite 10-15 renewable energy CEOs for meeting.

- Disseminate broadly the results of the PCAST review. The Committee has been challenged to produce an energy strategy that will meet the "energy and environment needs of the next century" by October.

- We should still consider an open meeting with the Washington, D.C., policy community on peer-reviewed economic analysis and other information to be used in the regional conferences.

Notational Schedule:

June 24-7:	OSTP South East Regional Workshop (Vanderbilt) - *scheduled*
June 25:	VP Attends OSTP Impacts Workshop (Nashville) - *scheduled*
June 26:	President Speaks at UNGASS - *scheduled*
June 27:	President meets with CEO's of Big 3 automakers - *scheduled*
June 28:	First Presidential radio address to speak to climate change, perhaps with discussion of transportation sector (mtg. with Big 3 on 6/27), including the results of SunRayce 97 (pv powered car race) - *TBD*
June/July:	VP hosts Congressional Dinner - *TBD*
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Mid August:	Mid Regional Meeting - *TBD*
Late August:	Western Regional Meeting - *TBD*

Late September:	White House National Conference - *TBD*
September:	President's Remarks to UNGA - *TBD*
September 3-5:	OSTP New England Regional Meeting (U of NH) - *scheduled*
Nov. 10-12:	OSTP National Impacts Workshop at NAS - *scheduled*
October:	PCAST strategy due

cc: JY
AW
JAF
SS

June 17, 1997

FAX MEMO

TO: Todd Stern, Staff Secretary
Katie McGinty, David Sandalow at CEQ
Dan Tarullo, Mark Mazur at NEC

FROM: Dirk Forrister, Climate Change Task Force DF

RE: Attachment

At the direction of Shelley Fidler and David Sandalow, I have tried to incorporate comments to the attached in response to the morning meeting. OSTP sent several suggestions, which we incorporated as best we could in time available.

Obviously, it got longer. Now 5 pages. I am open to suggestions -- easiest way to shorten is to drop out "messages" and save for later.

Please advise.

Thanks,

Dirk at 343-1060
(Or fax changes to 343-1162)

Climate Change: The President Engages the American Public

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1. President's Remarks at UNGASS: Intensive Engagement to Chart Path Forward

Goal: Set President's vision for approaching climate change and begin national dialogue, drawing business, labor and environmentalists into a cooperative process on how best to move forward.

Message:

- America has played an important role in this century for a peaceful and prosperous world. There are new challenges on the horizon. As America prepares to enter the 21st century, we are committed to improving our public education, advancing free trade, and beginning the transformation to a more sustainable environment.

- Climate change is our most important global environmental challenge as we approach the 21st century. The science is firm; the early evidence in consistent. Risks of inaction are high and unacceptable: increased storms, droughts and heat waves; increased sea level rise; more spread of infectious disease; problematic agricultural shifts; loss of forests and ecosystems. Costs of action are low and manageable, provided that policies are flexible and market based and that technology is deployed. Waiting isn't the answer because it makes the job harder to solve.

- I know the economy and how to create jobs. I am going to promote America's economic future and enhance the prospects for American workers. And I am going to find a way to address climate change effectively. We can do both.

- The path forward is clear: we need an effective international policy to control emissions. We're committed to maximum flexibility for businesses so we can achieve the greatest environmental benefits at the lowest cost. We need a commitment to act but act thoughtfully and a recognition that this is a global issue to be addressed globally. We need policies that send strong signals to the market spurring investment and innovation in technologies that reduce greenhouse gas emissions.

- I need the business community to step forward to work with us to find solutions. We need honest dialogue and a common vision. We need pragmatic steps now and ambitious goals for the future. We need to turn our technological prowess into an engine for change in abating greenhouse gas emissions. We can do this together, if we set our minds to it.

- Today, I'm asking every American to consider being part of this solution. Over the coming weeks, I'm asking the Vice President and my cabinet to engage in a new dialogue with the American public to find a common vision on the policy solutions required. I want them to report back to me at a White House Conference in early September with their findings on how best to move forward.

- I know that with the strength of the American spirit, the ingenuity of industry and the dedication to our children, we will meet this new challenge.

2. Engaging the American Public in a National Dialogue on Path Forward

Goal: Elevate public understanding of the importance of changing climate and build support for national policy priorities developed cooperatively through an open dialogue with the range of affected constituencies.

Message: We're serious about addressing climate change problems. We can meet the challenge better by working together than apart. We want to share what we have learned about climate science, economic impacts and opportunities, and possible policy alternatives. We want to listen to your views and incorporate them into our decision making. With concrete proposals, business can play a critical role in our decision making. We want to draw together America's best scientists, economists, and industry leaders to chart a path forward. And we want to go united into the world community with a vision of where all of America believes we should go on this critical issue.

Strategy:

- **Presidential Events:**
  - 3 radio addresses by end of September (first possibly on June 28)
  - Message-of-the-day events; for example:
    - Kick-off of Million Solar Rooftops (Virginia PV plant or sites in SW/West Coast)
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- **Regional and National Workshops**: Conduct three regional conferences leading to a White House Conference. Three to five cabinet members and senior White House staff would participate in each. (Include mix of Albright, Rubin, Daley, Browner, Peña, Glickman, Babbitt, Shalala, Richardson, Witt, McGinty, Sperling, Tarullo, Gibbons, Yellin, etc.). Conferences conducted in roundtable format, chaired by senior Cabinet members. Each would begin with key presentations, followed by open dialogue. Open to press and encourage live C-Span coverage. Conduct press backgrounders before and after. Involve regional corporate CEO's, academics, environmental & labor leaders, governors, other state & local leaders, religious leaders and members of Congress. All conferences would be comprehensive, but each would have a special focus, tailored to region.

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Message: We need your help. Work with us, and we will jointly develop solutions that will work effectively and mitigate negative economic impacts to your business.

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- We should still consider an open meeting with the Washington, D.C., policy community on peer-reviewed economic analysis and other information to be used in the regional conferences.

Additional Points:

Resources:

- In order to implement the strategy effectively, we need to significantly upgrade our

outreach effort. It will take significant financial and staff resources to conduct preparations and carry out events and follow up. White House communications and advance personnel could contribute expertise in planning this education drive. In addition, principals would need to make time available for preparation, speeches, roundtables, etc.

- Up to $2 million (rough estimate) would be required for the regional and White House conference. We will need to designate a central coordinating facility to augment the White House Climate Change Task Force on this project.

Orientation: In order to jump start the process, it will be necessary to have a half-day orientation session for principals, perhaps at the Vice President's residence or the Blair House. This would cover science, economics, technology, and policy options. This would happen in early July.

Notational Schedule:

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October:	PCAST strategy due

REDEFINING PROGRESS
ONE KEARNY STREET • 4TH FLOOR • SAN FRANCISCO • CALIFORNIA 94108
Telephone 415.781.1191 • Facsimile 415.781.1198

March 10, 1997

Jeffrey Frankel
Member Nominee
Council of Economic Advisers
Old Executive Office Building
Washington, DC

Dear Mr. Frankel,

Peggy Duxbury, the Director of Corporate Policy for Redefing Progress, asked me to forward this information to you. Enclosed you will find the list of signatories to the Economists' Statement on Climate Change. There are currently 2,488 signatories. As you peruse the list you will notice that one asterisk (*) denotes one of the original five economists that drafted the statement, two asterisks (**) denotes a Nobel laureate in Economic Science.

If you have any questions regarding the statement or the list of signatories please contact Peggy Duxbury at 202-588-8900; or you may want to contact our Senior Economist, Professor Stephen DeCanio of the University of California, Santa Barbara at 805-893-3130.

Sincerely,

Elsa Cleland

Elsa Cleland
Program Assistant

ECONOMISTS' STATEMENT ON CLIMATE CHANGE

LIST OF ECONOMISTS WHO HAVE ENDORSED TO DATE
MARCH 7, 1997

NAME	AFFILIATION
Herbert S. Wong	
Robert L. Wood, Jr.	
Dhez Woodworth	
Donald Wooten	
Jiehjou Joe Wu	
Martin J. Wyand	
Steven Yamarik	
Richard Young	
Robert C. Young	
Piljoo Yum	
Katherine K. Yunker	
Peter Zadrozny	
Jay Zarnikau	
Stephen H. Zeller	
M. G. Zephirin	
Mingliang Zhang	
Jacob Benus	ABT Associates
Clark C. Abt	ABT Associates, Inc.
Leland Deck	ABT Associates, Inc.
Ulrich F.W. Ernst	ABT Associates, Inc.
Robert Kornfeld	ABT Associates, Inc.
Marty Makinen	ABT Associates, Inc.
Gregory B Mills	ABT Associates, Inc.
Larry L. Orr	ABT Associates, Inc.
Gunars Hauff Platais	ABT Associates, Inc.
Allen B. Ferguson	AFE, Inc.
Amy K. Taylor	Agency for Health Care Policy and Research
Chiou-nan Yeh	Alabama State University
Earl W. Adams	Allegheny College
Kenneth G. Ainsworth	Allegheny College
Stephen D. Casler	Allegheny College
Pamela Mobilia	Alpine PCS
Michael Stavy	Alternative Energy and EV's
Paul Thompson	AMBAC Indemnity
Riad Tabbarah	Ambassador of Lebanon to the U.S.
Daniel Bell	American Academy of Arts & Science
Paul Kahane	American Economic Association
M. Abdul Shibli	American Economic Association
Jay G. Chambers	American Institutes for Research
Donald Rosenthal	American Management Systems
Tom Everding	American Medical Association
Donald Bowles	American University
Robin Hahnel	American University
Sue Headlee	American University
Alan G. Isaa	American University
Bruce H. Lubich	American University
Howard M. Wachtel	American University
James H. Weaver	American University
Karen Hallows	American University, Averett College
Ralph E. Beals	Amherst College
Richard C. Hoyt	Analytics
Samuel Gubins	Annual Reviews Inc.
Elbert V. Bowden	Appalachian State University
James Cavallo	Argonne National Laboratory
Lutz Hendricks	Arizona State University
Michael Lemmon	Arizona State University
Gary A. Latanich	Arkansas State University
Brian J. Cody	Arthur Andersen
Kevin J. O'Connor	Assistant Attorney General
Thomas White	Assumption College
Jian Cao	AT&T
Douglas G. Hobbs	AT&T
Christopher J. Monroe	AT&T
Kumiko Powell	AT&T
Gregory Napiorkowski	AT&T Laboratories
Louis T. Brewer	AT&T, Rtd.
Robert F. Hebert	Auburn University
John P. Sophocleus	Auburn University
Henry Thompson	Auburn University
Hiro Fukao	Aurthur D. Little
Patrick J. Kennon	Aviation Economics
Mark Tomass	Babson College
Stephen Silver	BADM, The Citadel
Judith A. Smrha	Baker University
Barbara Sherman Rolleston	Baldwin-Wallace College
Terence E. Byrne	Baltimore-Washington Financial Advisors
Leland S. Prussia	Bank of America Corporation
R. McFall Lamm, Jr.	Bankers Trust Co.
Maxwell Rhee	Banque Nationale de Paris
Mary Lashley Barcella	Barcella Associates
Dimitri Papadimitriou	Bard College
Shannon Mudd	Barente Group
Gopal Iyer	Baruch College
Theodore Joyce	Baruch College
Ted Walther	Bates College
Steve Shanltle	Battelle
Kathrine F. Wellman	Battelle Memorial Institute
Dave Anderson	Battelle-Northwest
David B. Belzer	Battelle-Northwest
Joseph A. McKinney	Baylor University
John Katharopoulos	BCBS of Michigan
Ernie Nadel	BCI

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ECONOMISTS' STATEMENT ON CLIMATE CHANGE

LIST OF ECONOMISTS WHO HAVE ENDORSED TO DATE
MARCH 7, 1997

NAME	AFFILIATION
Wayne A. Morra	Beaver College
James Lacey	Bell Labs
Steven G. Lanning	Bell Labs - Lucent Technologies
Roger Story	Bellcore
Kristina Weir	Bellevue Community College
Gary L. Hodgin	Belmont University
Mary M. Thompson	Belmont University
Warren Palmer	Beloit College
Marc Bendick, Jr.	Bendick & Egan Economic Consultants, Inc.
Bertrand LaNoue, O.S.B.	Benedictine College
Janet M. Thomas	Bentley College
Lucy Ackert	Berry College
Bassem Abou-Zeid	Bethel College
Phyllis Campbell	Bethel College
Miles O. Bidwell	Bidwell Associates Inc.
Charles W. Bischoff	Binghamton University
Clifford D. Clark	Binghamton University
Stanley H. Masters	Binghamton University
Dr. N.J. Wulwick	Binghamton University
L. Aubrey Drewry, Jr.	Birmingham-Southern College
M. Iqbal Akhtar	Blackburn College
Bennett W. Golub	Blackrouk Financial Management
Edward Bloom	Bloom Research
Woo-Bong Lee	Bloomsburg University
Marshall Reinsdorf	BLS
Ronald L. Friesen	Bluffton College
Chong-en Bai	Boston College
Christopher Baum	Boston College
Frank M. Gollop	Boston College
Marvin Kraus	Boston College
Robert G. Murphy	Boston College
Harold Petersen	Boston College
Joseph F. Quinn	Boston College
Paul Streeten	Boston College
Donald J. White	Boston College
Eli Berman	Boston University
Zvi Bodie	Boston University
William M. Capron	Boston University
Jonathan Eaton	Boston University
Shane J. Hunt	Boston University
Laurence J. Kotlikoff	Boston University
Thomas McGuire	Boston University
Zvika Neeman	Boston University
Debraj Ray	Boston University
Ingo Vogelsang	Boston University
David Weil	Boston University
Andrew Weiss	Boston University
Carla Y. Willis	Boston University
Wei Yu	Boston University
William F. Samuelson	Boston University , School of Management
John Fitzgerald	Bowdoin College
Charles R. Chittle	Bowling Green State University
Paul F. Haas	Bowling Green State University
Alan Day Haight	Bowling Green State University
Mark Kasoff	Bowling Green State University
Kyoo Kim	Bowling Green State University
Harold I. Lunde	Bowling Green State University
Stephen Ziliak	Bowling Green State University
Felicia Yesari	BPBA-New York
Kalman Goldberg	Bradley University
Kevin M. O'Brien	Bradley University
Anne P. Carter	Brandeis University
Gary H. Jefferson	Brandeis University
Arthur Lewbel	Brandeis University
Rachel McCulloch	Brandeis University
Brian Kelly	Brian Kelly Inc.
Robert Axtell	Brookings Institution
Margaret M. Blair	Brookings Institution
William Dickens	Brookings Institution
Edward R. Fried	Brookings Institution
Robert E. Litan	Brookings Institution
Nora Lustig	Brookings Institution
Robert Solomon	Brookings Institution
Leo J. Raskind	Brooklyn Law School
Louis Putterman	Brown University
Mark B. Schupack	Brown University
Michael Spagat	Brown University
Akio Yasuhara	Brown University
David R. Ross	Bryn Maur College
Thomas Loo	Budget Comp.
Christian Ehemann	Bureau of Econ.Analysis, U.S. Dept. of Commerce
Gerald A. Pollack	Bureau of Economic Analysis
Joel D. Fischer	Burnham Securities Inc.
Hasan MacNeil	Butte College
Bruce W. Kimzey	BYU-Hawaii, School of Business
Robert Wassmer	Cal State Sacramento
James M. Payne	Calhoun Community College
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Seymour Goldstone	California Energy Commission
Lionel J. Lerner	California Energy Commission, Rtd.
Charles R. Plott	California Insitute of Technology

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ECONOMISTS' STATEMENT ON CLIMATE CHANGE

LIST OF ECONOMISTS WHO HAVE ENDORSED TO DATE
MARCH 7, 1997

NAME	AFFILIATION
Lance E. Davis	California Institute of Technology
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James Ahern	California Polytechnic University
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A. R. Gutowsky	California State University
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Madhu S. Mohanty	California State University
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H. Dieter Renning	California State University, Stanislaus
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Young J. Park	California University of Pennsyvania
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Pierre Canac	Cameron School of Business
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Dickson K. Smith	Cardinal Strich College
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Stephen H. Strand	Carleton College
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Lester B. Lave	Carnegie Mellon University
George Loewenstein	Carnegie Mellon University
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Amresh Hanchate	Case Western Reserve University
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Bruce K. Johnson	Centre College
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Randy Nelson	Colby College
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Kenneth C. Nobe	Colorado State University
Charles Revier	Colorado State University
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Chris Mayer	Columbia Business School
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Gordon Urquhart	Cornell College
John H. Bishop	Cornell University
Duane Chapman	Cornell University
Gary S. Fields	Cornell University
Robert H. Frank	Cornell University
Robert Gibbons	Cornell University
Robert C. Lind	Cornell University
Bill Rosen	Cornell University
Shankar Subramanian	Cornell University
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Irving Stone	CUNY
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Harvey Gram	CUNY, Queens College
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Michael M. Knetter	Dartmouth College
Dennis E. Logue	Dartmouth College
John A. Menge	Dartmouth College
Sang-Seung Yi	Dartmouth College
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Pietro Peretto	Duke University
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Dale W. Henderson	Federal Reserve Board
Murat F. Iyigun	Federal Reserve Board
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Steve Rhoades	Federal Reserve Board
Laura S. Rubin	Federal Reserve Board
Charles Siegman	Federal Reserve Board
Guy V.G. Stevens	Federal Reserve Board
Chunsheng Zhou	Federal Reserve Board
Gerald D. Lomen	Federal Reserve Board of New York
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Gabriel Torres	Fitch Investor Services
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Alison Butler	Florida International University
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Dominick Salvatore	Fordham University
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Glenn G. Stevenson	Formerly Oak Ridge National Laboratory
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Vincy Fon	George Washington University
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Mitch Kaneda	Georgetown University
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Clifford Zinnes	Harvard Inst. for International Development
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Robert Dorfman	Harvard University
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Jerry R. Green	Harvard University
Brian Hall	Harvard University
James K Hammitt	Harvard University
Oliver Hart	Harvard University
* Dale Jorgenson	Harvard University
Lawrence Katz	Harvard University
Nathan Keyfitz	Harvard University
David Laibson	Harvard University
Andrew Metrick	Harvard University
John R. Meyer	Harvard University
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Gustavo Canonero	International Monetary Fund
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Gian Maria Milesi-Ferretti	International Monetary Fund
Rakia Moalla-Fetini	International Monetary Fund
Alphecca Muttardy	International Monetary Fund
Toshiro Nishizawa	International Monetary Fund
Michael G. Papaioannou	International Monetary Fund
Lorenzo L. Perez	International Monetary Fund
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Ronald Swanstrom	Jefferson High School
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Carl F. Christ	Johns Hopkins University
W. Max Corden	Johns Hopkins University
David G. Fernandez	Johns Hopkins University
Isaiah Frank	Johns Hopkins University
Louis J. Maccini	Johns Hopkins University
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Zohreh M. Niknia	Johnson County Community College
Nan L. Wilson	Johnson County Community College
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Kenneth A. Reinert	Kalamazoo College
Andrew Barkley	Kansas State University
Robert B. Borges	Kansas State University
Patrick Gormely	Kansas State University
Steve Hamilton	Kansas State University
Richard L. D. Morse	Kansas State University
Amir Tavakkol	Kansas State University
Roger Trenary	Kansas State University
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Wan Ho Cho	Korean Consulate
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MARCH 7, 1997

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Thomas D. Jeitschko	Texas A&M University
Noh-Sun Kwark	Texas A&M University
John R. Moroney	Texas A&M University
Rajiv Sarin	Texas A&M University
C. Richard Shumway	Texas A&M University
Amy P. Thurow	Texas A&M University
James H. Ullmer	Texas A&M University
Farshid Vahid	Texas A&M University
Frank Giesber	Texas Lutheran University
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Paul R. Carpenter	The Brattle Group
Peter Fox-Penner	The Brattle Group
Peter Fox-Penner	The Brattle Group
Kenneth T. Wise	The Brattle Group
G.R. Guralnik	The Business Group, Inc.
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A. Doris Capistrano	The Ford Foundation
Henry E. Cole	The Future Group International
Gerald Kraft	The GSK Group, Ltd.
Ronald H. Miller	The Hudson Group
Thomas E. O'Hare	The Intertich Group
Gina Livermore	The Levin Group
David C. Stapleton	The Lewin Group
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William G Rhoads	The Nature Conservancy
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Martin Duffy	The Perseus Group
Larry Willmore	The United Nations
Fernando Losada	The Weston Group
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Mark W. Leiserson	The World Bank
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Maurice Schiff	The World Bank
Inderuit Singh	The World Bank
Andrew Steer	The World Bank
Moshe Syrquin	The World Bank
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Loerene Yap	The World Bank
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Enrique Lerdau	The World Bank, Rtd.
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James W. Thomson	Thomson Investing
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Nayyer Hussain	Tougaloo College
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Seymour Patterson	Truman State University
Werner Sublette	Truman State University
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LIST OF ECONOMISTS WHO HAVE ENDORSED TO DATE
MARCH 7, 1997

NAME	AFFILIATION
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Arden K. Sansom	U. S. Army Corps of Engineers
Frank D. Campbell	U. S. Army Trade Analysis
Anthony Barkume	U. S. Bureau of Labor Statistics
Adam A. Sokoloski	U. S. Bureau of Land Management
Kathleen Short	U. S. Census Bureau
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Elliot Levy	U. S. Department of Commerce
H. Kemble Stokes, Jr.	U. S. Department of Commerce
Robert Copaken	U. S. Department of Energy
Inja K. Paik	U. S. Department of Energy
Joseph M. Burns	U. S. Department of Justice
Robert Blicksilver	U. S. Department of Labor
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NAME	AFFILIATION
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Eric Monke	University of Arizona
Richard Newcomb	University of Arizona
Leslie S. Stratton	University of Arizona
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Michael M. Hutchison	University of California, Santa Cruz
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Lars Peter Hansen	University of Chicago
Milton Harris	University of Chicago
David Hummels	University of Chicago
Gale D. Johnson	University of Chicago
Stefan Krieger	University of Chicago
Timur Kuran	University of Chicago
Uzma Qureshi	University of Chicago
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Lanse MInkler	University of Connecticut
Susan Randolph	University of Connecticut
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Pamela J. Smith	University of Deleware
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Elias Dinopoulos	University of Florida
Ira Horowitz	University of Florida
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Demetrios Giannaros	University of Hartford
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William F. Malowey	University of Illinois, Urbana
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Herbert Giwtes	University of Massachusetts
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David Letson	University of Miami
David C. Mauer	University of Miami
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Bryan W. Roberts	University of Miami
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Edward Gramlich	University of Michigan
Richard A. Hirth	University of Michigan
F. Thomas Juster	University of Michigan
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Jared Creason	University of Minnesota
Bryan Dowd	University of Minnesota
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Edward Foster	University of Minnesota
Leonid Hurwicz	University of Minnesota
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NAME	AFFILIATION
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Steve Husted	University of Pittsburgh
John Kagel	University of Pittsburgh
Josephine E. Olson	University of Pittsburgh
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Steven F. Rushen	University of Pittsburgh
Kevin Sontheimer	University of Pittsburgh
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Kate Stirling	University of Puget Sound
Lorenzo Garbo	University of Redlands
John P. Burkett	University of Rhode Island
S. Ghon Rhee	University of Rhode Island
Stephen Swallow	University of Rhode Island
Robert Dolan	University of Richmond
Peter W. Schuhmann	University of Richmond
Jonathan Wight	University of Richmond
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James A. Kahn	University of Rochester
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John H. McDermott	University of South Carolina
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William S. Rawson	University of South Carolina
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Kevin Chang	University of Southern California
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Baizhu Chen	University of Southern California
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Jean Gauger	University of Tennessee
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Don Fullerton	University of Texas
Tracy Hofer	University of Texas
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David Kendrich	University of Texas
Stephen L. McDonald	University of Texas
Dwight Steward	University of Texas
Wim P.M. Vijverberg	University of Texas
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ECONOMISTS' STATEMENT ON CLIMATE CHANGE

LIST OF ECONOMISTS WHO HAVE ENDORSED TO DATE
MARCH 7, 1997

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R. Thayne Robson	University of Utah
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Alfred L. Thimm	University of Vermont
Mark R. Eaker	University of Virginia
John Elder	University of Virginia
Charles A. Holt	University of Virginia
Jane Ihrig	University of Virginia
John K. Whitaker	University of Virginia
John Treble	University of Wales
William Beyers	University of Washington
Gardner Brown	University of Washington
Kathryn Dewenter	University of Washington
Dan Jacoby	University of Washington
J. Lawarree	University of Washington
Haideh Salehi-Esfahani	University of Washington
Robert Varadi	University of Washington
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James F. Shepherd	Whitman College
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Beth A. Wilson	Willamette University
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Matthew Hyle	Winona State University
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These economists elected not to list thier affiliation.

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ECONOMISTS' STATEMENT ON CLIMATE CHANGE

Endorsed by Over 2000 Economists
including six Nobel Laureates

I. The review conducted by a distinguished international panel of scientists under the auspices of the Intergovernmental Panel on Climate Change has determined that "the balance of evidence suggests a discernible human influence on global climate." As economists, we believe that global climate change carries with it significant environmental, economic, social, and geopolitical risks, and that preventive steps are justified.

II. Economic studies have found that there are many potential policies to reduce greenhouse-gas emissions for which the total benefits outweigh the total costs. For the United States in particular, sound economic analysis shows that there are policy options that would slow climate change without harming American living standards, and these measures may in fact improve U.S. productivity in the longer run.

III. The most efficient approach to slowing climate change is through market-based policies. In order for the world to achieve its climatic objectives at minimum cost, a cooperative approach among nations is required—such as an international emissions trading agreement. The United States and other nations can most efficiently implement their climate policies through market mechanisms, such as carbon taxes or the auction of emissions permits. The revenues generated from such policies can effectively be used to reduce the deficit or to lower existing taxes.

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MEMORANDUM

COUNCIL OF ECONOMIC ADVISERS

Date: 13 Feb 97

To: Alicia Munnell
Jeffery Frankel

From: Jason Shogren

RE: GCC Outreach Program

Should we pay more attention to the outreach program?

I talked with Sally Kane from NOAA (ex-CEA) who gave us a heads-up on the framing of the outreach programs that Dirk from DOE is organizing.

The fear is that these regional outreach programs will present an unbalanced view of what we do and do not know about GCC--leaning toward alarming the public. We should care about this because these workshops might not present the best state of the art knowledge about the likely economic impacts of GCC.

Attached is one example from the Central Great Plains workshop. On page 2, the wording is:

Day 1: ...."potential vulnerabilities and risks..."

Day 2: ..."critical constraints to economic, social and ecological sustainability..."

Day 3: ..."needed community efforts to deal with climate change..."

Also attached in a letter from John Gibbons following up on a GCC meeting with the VP that outlines what is going on in the outreach program.

We have not been invited to any of the outreach meetings to discuss content or process. Apparently there is a central great plains regional meeting tomorrow--I am trying to find out where and when.

What can we do?

Attend the meetings to make sure that the economic message is balanced.

Write a letter to Katie McGinty/Dan Tarullo suggesting that a formal or informal Advisory Board be established to help provide useful information to the outreach programs.

WORKSHOP PROPOSAL OUTLINE

CLIMATE CHANGE IMPACTS ON RANCHING, FARMING AND WILDLIFE CONSERVATION IN THE CENTRAL GREAT PLAINS (COLORADO, KANSAS, NEBRASKA, WYOMING)

OSTP SPONSORED

The evidence for climate change is becoming more compelling, yet most regions of the United States do not have a strategy to deal with the potential impacts of climate change. In the Central Great Plains region (i.e., the Colorado, Kansas, Nebraska and Wyoming area), the potential impact of climate changes is anticipated to affect winter snowfall, growing season rainfall amounts and intensities, minimum winter temperatures, and summer time average temperatures. The combined effect of these changes in weather patterns and average seasonal climate will affect numerous sectors critical to the economic, social and ecological welfare of this region.

Water resources already scarce in the region may come under greater competition among the various users, for instance urban demands for drinking water may compete for water available for agriculture and wildlife conservation. Climate warming may severely impact the wetland areas of the region bringing about severe consequences to the migratory and local water fowl and wildlife populations. Climate change may also result in greater crop damages due to increased drought stress resulting from higher growing season temperatures. The loss of soil from these croplands may be enhanced by the lack of plant cover. Ranchers in the region may not be able to support the current number of animals on the existing rangelands due to reduced dryland pasture production and lack water resources for their animals.

Associated with climate change will be a number of indirect effects that will modify the ecological integrity of many of the ecosystems in the region. The increased number of noxious weeds, greater pest outbreaks, increased rate of aquifer use, and loss of wetlands for water fowl may result due to increased temperatures in the region. The economic and aesthetic costs of these changes have not been evaluated within the region, nor strategies for mitigating or adapting to these changes have been developed.

In order to better understand the scope of climate change issues and the potential economic and political implications of these climate impacts, we propose to hold an initial workshop of critical stakeholders in this region and the scientific community to highlight the regional concerns and knowledge. The initial focus of this workshop will be on the ranching, farming, and wildlife sectors within the region. The goals of the workshop are:

To more clearly understand the scope of the potential climate changes impacts that this region may need to deal with in the future;

To identify the critical climate related constraints to economic, environmental, and social well-being in the region among the stakeholders of the region;

To begin the development of a regional mitigation and adaptation strategy that is politically, economically, and socially feasible.

The workshop participants will include representatives from the following sectors:

Political sector

Congressional representatives, state legislatures, county and city council members

Land management sector

Agricultural extension agents, rangeland extension agents, water conservation board members, wildlife conservation managers, national and state park resource managers

Non-governmental organizations

The Nature Conservancy, Audubon Society, Cattlemen's Association

Commercial and Industrial sector

Seed developers, agrobusiness, crop insurance

Citizens

Ranchers, farmers, recreationists, hunters, fishermen

Scientists

Climatologists, ecosystem scientists, hydrologists, agricultural scientists, wildlife scientists

The structure of the workshop will be designed to provide a forum to present what is known about the climate change issues and identify the impacts of these changes and then to provide a platform for identification of critical issues related to climate impacts on various economic and environmental sectors critical to the region. We anticipate a three day workshop in order to address these issues. The location of the meeting is still be decided, but a location in Colorado is being contemplated. The timeframe of the forum is set for May or June of 1997.

Day 1: Presentation of climate change issues and potential impacts relevant to the region; identification of potential vulnerabilities and risks associated with regional climate change impacts

Day 2: Discussion of critical constraints to economic, social, and ecological sustainability in the region; development of possible mitigation and adaptive strategies.

Day 3: Develop framework for needed community efforts to deal with climate change impacts and identify critical issues for further development. Plenary discussion of Summary comments and future plans.

The outcome fo the workshop will be a regional appreciation of what critical climate change issues are that would affect the regional development and sustainability. The workshop will provide forum for better understanding of the scientific basis of climate change impacts and the socio-economic and environmental fabric from which the climate change impacts will be interwoven.

THE WHITE HOUSE

WASHINGTON

February 5, 1997

MEMORANDUM

FOR: ATTENDEES AT THE VICE PRESIDENT'S CLIMATE RESEARCH MEETING

FROM: John H. Gibbons

SUBJECT: **Follow-up on the Papers Assigned by the Vice President on January 30**

At the end of our very productive meeting on Global Change Research, the Vice President gave a number of charges:

1) to help with the CEQ/NEC communication outreach effort (Katie McGinty and Dan Tarullo will send you a follow-up memo on this);
2) to assist with regional impacts workshops (Tim Wirth has since held an initial meeting and asked agencies to submit information about planned events to DOS), and
3) some agencies were tasked to prepare short impacts papers over the next 3-4 weeks. OSTP will serve as the focal point for this effort.

This memo is to clarify the assignment to produce impacts papers. The lead agencies designated were:

NIH/EPA:	Health
NOAA:	Fisheries, Coastal Zones
USDA:	Agriculture, Forests
DOI:	National Parks, Water Resources
FEMA:	Disaster Mitigation and Preparedness

The ideal product would be short text, about 5 pages, written to address 3 key topics:

- what is the condition of the resource today (current stresses);
- what additional impacts does climate change pose for the resource;
- what resources (and where) are most vulnerable to a climate-changed world, what socio-economic impacts might ensue, and what options for managing natural resources in the face of such change, ought to be explored.

The papers will serve many purposes over the coming months as we work with stakeholders to explain what climate change means for the average citizen. We want good graphics--some national and some regional--that help explain the vulnerabilities of resources to climate change. Because several agencies may have interesting work to bring to bear on each of these resources, I suggest the lead agencies for each paper convene a meeting with other relevant agencies as soon as possible. Agencies should bring to these meetings an inventory of their completed, ongoing and proposed work on climate change so we can share this information as soon as possible.

We hope you can complete your papers and submit them to us by the end of February. Rosina Bierbaum and Jerry Melillo of my office (456-6202) are assigned leads on this effort and will be happy to attend the inter-agency meetings and help with the overall process.

GROUP OF SIX PLUS

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The Washington Post

BUSINESS

Linking Business's Climate and Earth's

Some Companies Begin to Explore Whether Global Warming Could Hurt Their Bottom Lines

By Martha M. Hamilton
Washington Post Staff Writer

A few U.S. businesses are beginning to take practical steps to deal with what their managers regard as a real and potentially dangerous trend—global climate change.

These companies have concluded that the spread of carbon dioxide and other "greenhouse" gases—through the burning of fossil fuels such as coal and oil—could produce devastating worldwide changes in temperature and precipitation. They fear this "global warming" will be harmful to the environment—and also to the corporate bottom line.

Some of the corporate steps are tentative, and they come at a time when most U.S. companies are still spewing out carbon dioxide without thinking much about its potential costs. Indeed, representatives of the U.S. coal, oil and utility industries are vigorously opposing a Clinton administration plan to seek binding limits on releases of greenhouse gases. But there are signs, too, of changing business attitudes toward global warming.

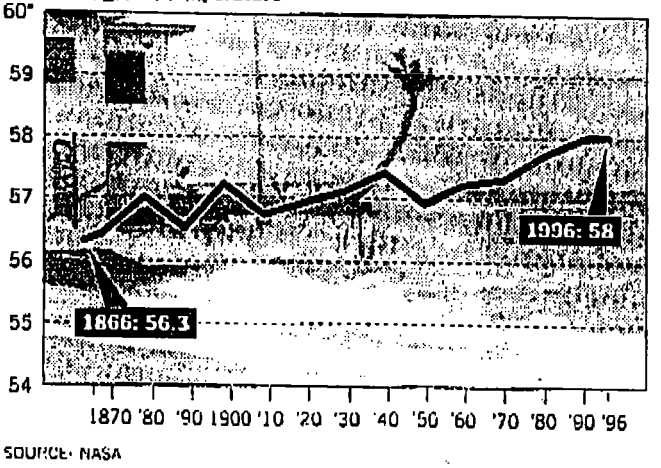
At Mobil Corp., for instance, there have been staff-level discussions about whether the company should track its emissions of carbon dioxide. Mobil hasn't yet reached any decision on the matter, a spokesman said.

But some are more concrete. Monsanto Co., the chemical and biotechnology company, has begun measuring its own CO^2 emissions. "If you look at the kind of businesses Monsanto is in, the economic consequences of even a slightly warmer world are pretty devastating," said Kate Fish, director of public policy for the St. Louis-based company.

"We depend on farmers to a large part, and farmers depend on things like stable weather patterns and soil moisture content," she said. "Extreme weather patterns are daunting."

TOO HOT TO HANDLE?

The earth is almost two degrees Fahrenheit warmer than it was 130 years ago; that, coupled with coastal erosion caused by particularly bad hurricane seasons, has businesses looking at ways to limit the environmental harm they cause.



SOURCE: NASA

Because of that, the issue of global warming is taken seriously by senior management at the company, she said. "The first step is where are you with CO^2 emissions," she noted. Although environmental laws require companies to keep track of other emissions—such as sulfur dioxide and nitrous oxide—carbon dioxide emissions have been "free," she noted.

Other companies have studied ways to offset or reduce emissions of carbon dioxide. AES Corp., a company that builds independent power generating plants, has in several cases in the past planted trees or bought endangered forests—because the trees will help absorb carbon dioxide produced by the power plants.

Northeast Utilities, the largest electric utility in New England, joined in a voluntary federal program to reduce emissions. The company reported last month that it had limited CO^2 emissions to 11.1 million tons systemwide in 1995—even lower than the target it had set, of 14.7 million tons.

Dow Chemical Co. has established a goal of improving energy efficiency at a rate of 2 percent per year, per product manufactured, according to Paul Cicio, the company's manager of government relations, hydrocarbons and energy policy. This is one of a series o

See CLIMATE, H8, Col. 1

Signs Increase That Business Attitudes Are Changing Toward Global Warming

CLIMATE, From H1

global environmental goals the chemical company has established, he said.

"The most important way companies improve energy efficiency is when they build new facilities," Cicio said. For instance, a new plant in Alberta, Canada, which produces ethylene—the basic raw material for the production of plastics—is 30 percent more efficient than a similar plant built just 17 years ago.

"The key is looking for projects that accomplish the best of both worlds—the ones that allow us to make a return for our shareholders and also to improve the environment," he said. "That doesn't happen by accident."

And other companies have achieved greenhouse-gas-reducing energy efficiency in the course of pursuing other goals. Carrier Corp., for instance, was looking for a new type of chiller to replace an old technology that relied on ozone-depleting chlorine. The company chose to skip over an interim generation of chillers that would still have used the ozone-depleting chemical.

Instead, it went directly to an alternative that used no chlorine at all, according to Matt Chadderdon, vice president for government relations for the United Technologies Corp. subsidiary.

One industry that is mindful of the potential effects of global climate change is the insurance industry—which would have to pay for floods, droughts and other natural disasters that might result from changes in global temperature and weather.

A warning to the industry came last April from Franklin W. Nutter, director of the Reinsurance Association of America. In a speech to the Casualty Actuarial Society, he urged the industry to encourage energy efficiency. Reinsurance is the process of sharing risks among insurance companies.

Nutter noted that the International Panel on Climate Change "predicts that over the next 100 years the earth will warm from 1.5 degrees to 6.3 degrees Fahrenheit, and that sea level will rise from 6 inches to 38 inches—roughly the same amount of change in the next 100 years as has occurred over the Earth since the last Ice Age nearly 10,000 years ago."

The result of these climate changes, according to the panel, "would be greater frequency and intensity of droughts, geographic spreading of disease more common in warmer climates, the retreat of mountain glaciers, storms of greater malevolence and more intense wet and stormy conditions."

The insurance industry "should not postpone reasonable and appropriate measures" while waiting for additional scientific assessment, Nutter said.

"There's no certainty as to what the impact of climate change will be on weather patterns," said Karen M. Clark, president of Applied Insurance Research of Boston, a company that provides computer modeling for the insurance industry. The computer models can only assess what the industry's losses would be if predictions about the impact of global warming on weather patterns are true, she said.

Clark and others said that, so far, there has been more corporate interest in the possible business impact of global climate change in Western Europe than in the United States.

Monsanto's Fish said she worries that "it will put U.S. business at a competitive disadvantage worldwide, if we see companies in other countries driving toward more efficient production."

International negotiators are hammering out details of how to address the issue of global climate change, including whether to set legally binding targets for reducing emissions of greenhouse gases after the year 2000.

Said Eileen Claussen, the State Department's assistant secretary for oceans and international environmental and scientific affairs: "I think it is a competitiveness issue, and I would like us to be out there in the lead."

for Dirk — How we view Peer review.

Predecisional Draft / Not for Quotation or Distribution

OUTREACH PLAN FOR MODELING RESULTS

Stage I -- Base case runs and major assumptions -- Mid February

- Release in briefings to Congressional staff (we go to them) and outside groups (invite in to DOC).

- Announce formation of peer review panel & process.

  -- 12 members (3 recommendations each from Secretary of Energy's Advisory Board, EPA Administrator's Science Advisory Board, OSTP's Science Advisory Panel ??? and Council of Economic Advisors???).

  -- Selection criteria: range of sectoral expertise, energy/environmental/economic modeling expertise, published work in area w/ peer review, independent from government, (also, academics, enviro's and industry???)

  -- Convened as Climate Modeling Review Panel. We will not seek consensus, just individual views. Should comply with FACA.

  -- Base case & assumptions would be presented to Taskforce by Ehrlich group in early March, and Taskforce members would be invited to provide review comments and recommendations for improvement within 2 weeks.

Stage II -- Modeling Runs -- Late April to Early May

- Provide confidential briefings to Congressional staff (and Members, where requested) at OEOB.

- Convene peer review panel to hear Ehrlich's presentation on modeling results and key interpretations; respond with written comments within 2 weeks. *This process would not become public until stage III. Again no FACA problem with keeping pre-decisional info confidential.*

Stage III -- Public Workshop on Modeling & Results -- Late May to Early June

- Opportunity for full public participation.
- Ehrlich group presents full package: basecase, runs, assumptions and interpretations of results.
- Peer review panel responds with individual review and comments.
- Ehrlich group provides response re: how we dealt with recommendations.
- Audience participates in question and answer session with Ehrlich group and review team.
- Package put on internet for public at large to consider.
- Package put in Federal Register as Notice for public at large.

GLOBAL CLIMATE COALITION

GROWTH IN A GLOBAL ENVIRONMENT

cc: AW
JAF
JS
TR

19 February 1997

Dear Member of the Interagency Taskforce on Climate Change Policy:

Attached for your information is a letter from the Global Climate Coalition to Assistant Secretary Eileen Claussen outlining several concerns expressed by Coalition members with the January 17 "U.S. Draft Protocol Proposal."

Also attached are questions that the GCC believes need further clarification so that sound climate policies can be developed.

I hope you find this information useful.

Sincerely,

William F. O'Keefe
Chairman

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Telephone: (202) 637-3162 • Fax: (202) 638-1032 • Fax: (202) 638-1043

GLOBAL CLIMATE COALITION

February 14, 1997

The Honorable Eileen Claussen
Assistant Secretary of State for Oceans
and International Environmental
and Scientific Affairs
Room 7831
U.S. Department of State
2201 C Street, NW
Washington, D.C. 20520

Dear Ms. Claussen:

On behalf of the Global Climate Coalition, I want to thank you and other State Department officials for the time you set aside January 17 to brief interested parties about provisions in the "U.S. Draft Protocol Proposal" to the Framework Convention on Climate Change. In the interest of continuing that dialogue, I want to express several general impressions and to pose a number of questions prompted by this latest U.S. proposal and its predecessor last December.

First, we note the impressive effort evident in the proposal's elaborate policy architecture, given the short time allowed by the Secretariat to submit such documents. However, it is difficult to analyze the draft protocol and its implications until we are fully informed about the Administration's proposed target, timetables and policy tools--such as emissions trading--that have been proposed to implement a Kyoto agreement. The lack of detail denies the American public, labor and industry groups such as ours the ability to fully assess the merits of the U.S. draft protocol proposal, especially its implications for our nation's economic well-being. In our view, any protocol of this nature, were it ratified, may well result in policies, regulations and other measures many times more costly than they need be. Certainly, the growing body of economic analyses argues strongly against early actions that would be many times more costly but would produce no greater benefits than policies that were based on optimal timing.

As you know, our members strongly share the view that developing nations need to be part of any new Kyoto agreement. We have attached questions on

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this matter, as well as others. It is vitally important to establish in advance of the Kyoto meeting appropriate criteria for including developing countries and the resolve not to support any agreement that does not involve a specific schedule for active developing country participation. There is a political and equity argument why developing countries must be included in any new commitments. Would Americans accept a U.N. agreement that requires substantial personal, economic and lifestyle sacrifices, yet allows environmental gains, however distant or few, to first be marginalized and then completely overrun by the absence of active participation by developing nations, which will be the major emission sources in the next century? We think not, and urge the Administration to stand firm on developing country participation in any new agreement. At home, we urge you to make public as soon as possible the economic analyses on which your draft protocol proposal is based.

The GCC is encouraged by the stipulation that all greenhouse gases be included in any new agreement and by the attention given to the "free rider" problem. However, the GCC believes a number of points in this document require additional comment so that policymakers and the public may more precisely understand what U.S. representatives are preparing to negotiate in Kyoto. For example, how are the results of the Administration's economic analyses linked to the policy choices outlined in this draft protocol proposal? What, if any, institutional organizations need to be created or strengthened to implement the proposed tradable permits initiative? If international oversight is not contemplated, how would the integrity of such a system be protected, and by whom? Given the myriad of proposals now before the Parties, is the Administration concerned that important issues will not be resolved at the December meeting in Kyoto? If key issues are left unresolved, would the "Kyoto Agreement" be contingent on the satisfactory resolution of those issues by a time certain?

In short, we are encouraged by the Administration's January 17 effort to clarify its position regarding post-2000 greenhouse gas emissions, but we also are concerned by the important questions the draft protocol raises and does not answer. Rather than dwell on those concerns here, we enclose a list of some of the questions that we hope you can respond to before or after the Bonn meeting late this month.

The Global Climate Coalition appreciates this opportunity to comment on the U.S. draft protocol proposal. Be assured we will continue to participate

constructively in this national and international debate seeking to identify realistic, flexible climate policies whose benefits are commensurate with costs.

Sincerely,

William F. O'Keefe
Chairman

Attachment

cc: Federal Interagency Group on Climate Change Policy

February 14, 1997

GLOBAL CLIMATE COALITION ENCLOSURE

RE: SOME ISSUES CONCERNING U.S. NON-PAPER OF DECEMBER 1996 AND U.S. DRAFT PROTOCOL FRAMEWORK OF JANUARY 17, 1997

In asking these questions, we, of course, recognize that, in some cases, (such as Articles 2.7 and 4.6) you have not had an opportunity to spell out all of the details in the draft protocol and, of course, the specific target and timetable are absent. However, in other Articles, the lack of details raises issues and serious concerns. Our primary interest is in understanding what you intend or what you were thinking in crafting any particular Article, Annex, or provision in order for industry, labor and others to better understand the impact of the draft U.S. proposal and how it would be implemented from a practical sense should it or elements of it combined with proposals by other Parties be adopted in Kyoto.

Article 1 - Definitions

A. The draft defines "Party" to mean a "Party to the Protocol". Annex A includes the Annex I Parties to the Convention that sign and ratify or accept the Protocol and Annex B includes such non-Annex I Parties to the Convention that want to be included in Annex B. Article 5.5 and 5.6 seem to suggest that other Convention Parties may become Parties to the Protocol. Is that intended? If the U.S. draft protocol or significant elements thereof are agreed to in Kyoto, could non-Annex I Parties to the Convention sign and ratify or accept the Protocol, have equal voting rights, and also not agree to be included in either Annex A or B?

Article 5 - Advancement of the Implementation of Article 4.1 of the Convention

B. As drafted, Article 5 of the draft Protocol only applies to those Convention Parties who become Parties to the Protocol. Since Article 5 seems to impose new requirements or obligations, which you presumably believe are consistent with section 2.(b) of the Berlin Mandate Decision, on Protocol Parties in regards to Article 4.1 of the Convention, what is the incentive for non-Annex I Parties to the Convention (i.e. developing countries) to become Parties to the U.S. draft protocol and be subject to such requirements?

C. Article 5.5 applies to non-Annex A and B Parties, while Article 5.7 applies to all Parties to the draft Protocol. Both include the words "no regrets measures" which are not defined. What are such measures? Is it true that "no regrets measures" are not necessarily "no risk measures"? Does Article 4.1 of the Convention provide for or require "no regrets measures" for any Party? If not, what is the application of Article 5.7(b) to Parties not subject to Article 5.5 of the draft Protocol?

Article 16 - Evolution

D. There is concern that greenhouse gas emissions are growing rapidly in developing countries and that the Berlin Mandate precludes any new commitments applicable to such countries in any AGBM protocol or other legal instrument with the result that any such

instrument will not be fully global, will create economic and competitive disadvantages and will not be environmentally sound. We think a provision like Article 16 is needed for the developing countries, although we realize that it is only an agreement to agree. It does not, for example, include even a hint as to whether the agreement might, as minimum, be patterned after Article 5 of the Montreal Protocol. However, we are concerned that Article 16 (which, as drafted, now applies only to Protocol Parties) will not apply to developing country Parties to the Convention unless they become Protocol Parties and become Annex B Parties. Is it your intention that Article 16 should apply to developing country Parties to the Convention? What if they are not included in Annex B of the Protocol? Would that intention be better achieved by converting Article 16 to an amendment to the Convention?

E. Do you contemplate that the process of implementation of Article 16 would be spelled out in a decision at COP3 by the Convention Parties or by the Parties to the Protocol at their first meeting after entry into force? Are you concerned that some Parties to the Convention might delay signing and ratifying the draft Protocol until they see the results of the process under Article 16, particularly if the delaying Parties are developing countries with significant growth in greenhouse gases?

F. Annex B states that it includes Convention Parties "not listed in Annex A" that "indicate" they want to be "included" in Annex B. One country that immediately comes to mind because of its recent accession to the OECD would, based on Administration testimony in the House Commerce Committee last September, seem to be Korea which is a U.S. trading partner. However, we understand that an OECD document entitled "Korea's Accession Revised Draft Report to the Council" and dated last August states in paragraph 24 of an Annex entitled "Korean Undertakings" that: "For purposes of future negotiations and agreements, Korea would not choose to be classified as a developing country, except in the areas of agriculture and the UN Framework Convention on Climate Change." If the U.S. draft protocol was agreed to in Kyoto, is Korea committed as an OECD member to becoming a Party subject to Articles 5 and 16, but not Annex A or B, or does it mean that, as a developing country Korea could choose not to become a Protocol Party?

G. As you know, non-Annex I Parties are participating in negotiations for new commitments for Annex I Parties, while they enjoy an exemption from new commitments. However, Article 16 provides no similar exemption for Annex I Parties. Why should Article 16 which calls for new and progressive "quantitative greenhouse gas emissions obligations" based on some future "agreed criteria" be applicable to Annex A Parties to the Protocol, including the U.S., since the U.S. draft of the Kyoto protocol otherwise applies to them and imposes new obligations on them beyond those in Article 4.1 and 2 of the Convention? What new obligations for Annex A Parties do you contemplate in the Article 16 process? Does, for example, this mean that under Article 4.1(b) Annex I Parties, like the U.S., by signing the Protocol are agreeing to reductions beyond the requirements of Article 2 of the draft protocol?

Article 2 - Emissions Budgets

H. We observe that Section III of the December Non-Paper called for "focusing" negotiations on a "binding, medium-term emissions target" and expressed interest in working toward a "longer-term concentration goal". However, Article 2.3 appears to call for a second target or "budget period" before there is an agreement by non-Annex A and B Parties to the Protocol that are developing countries to negotiate "quantitative greenhouse.gas emissions obligations" under Article 16 and to adopt such obligations by [2005]. Does this second target send the wrong signals to the developing countries who agree to become Parties to the draft protocol and are subject to Article 16? Why is it in the best economic and competitive interests of the United States to offer a second target and timetable before negotiations with all Parties to the Convention in the AGBM begin and before the U.S. analysis and assessment and its assumptions are provided to Congress, industry, labor, environmentalists, and others? What is the need?

I. The Non-Paper states that the U.S. "strongly urges consideration of banking" and that multi-year averaging would give Parties "important flexibility". However, Article 2.5 seems to weaken that support for banking by providing that emissions of tonnes "may" (not "shall") be carried over and added to the "next budget period". That leaves uncertainty for industry and suggests that a Party like the U.S., might retire such tonnes rather than bank them which could have future economic and competitive consequences. Why did you take this discretionary approach? Why not follow the mandatory approach of Article 2.6? The Article does not specifically mention multi-year averaging. Why? Is it implied?

Article 6 - International Emissions Trading

J. As the chief proponent of an emissions trading program, the U.S. in its December Non-Paper said it was "critical" that provisions for "international" emissions trading "be included in the Kyoto agreement." When Title IV of the Clean Air Act (CAA) was signed into law, it spelled out in great detail the allowance program for existing and new electric utility units, including the timetable, the target, the cap, the trading system, the nature of the allowances, the rights of allowance holders, the tracking system, and the limitations. Upon enactment, the utility industry knew the program details and could plan their future. That program, which applied equally to all covered units of the electric utility industry, is for one industry with an identified and limited number of sources and it is a national trading program. Presumably, an international trading program will cover many industries, sectors, and gases on an international scale. However, our review of Article 6 of the draft protocol provides none of the details of an international trading program. It merely authorizes trading between Annex A and B Parties that establish a "mechanism" for certifying and verifying trades. It does not require that a trading program be established by all such Parties or that such a "mechanism" be put "in place" or that it be operated uniformly. All the important details are missing.

Do you intend to include these "critical" provisions in the protocol to be adopted in Kyoto or do you plan to defer development of such provisions to a post Kyoto_legal instrument, to a decision of the Parties to the Protocol after it enters into force, to bilateral negotiations between Parties, or some other means?

K. Article 6 provides that a Party "may authorize" any domestic entity to participate in actions "leading to transfer" of tonnes. What "actions" do you have in mind for this entity? In the case of the CAA, the trades are between utilities with reporting to the Environmental Protection Agency. Is that same approach likely to be accepted on an international scale if the domestic entity is a non-governmental organization in one country and a government agency in another?

L. As noted, Article 6 authorizes trading between Parties. However, unlike the CAA no mention is made of trading by private sector entities that will likely need such trading to operate. Also, unlike the CAA it does not allocate, or provide for an allocation of, the initial tonnes for various industries and sources to operate or indicate whether such industries and sources will be faced with penalties for continuing to operate without such allocation if such a program is initiated.

It only allows private sector entities, after receiving authorization from a Party, to "participate in actions leading to transfer and receipt..." of carbon equivalent emissions. Therefore, it appears that private sector entities can only suggest to Parties that certain emissions trading transactions take place. This imposes significant constraints on private sector international emissions trading, establishes a bureaucracy involving two separate governments or their designees between the private sector and the completion of trades, lowers any possible expectation that private sector entities would receive any benefit from trades, and makes the private sector subservient to the political and policy whims of governments in order to carry out what industry does best, i.e., produce goods and services and employ workers.

The wording of Article 7 on Joint Implementation carries the same structure and constraints. Under Article 7.1, any Party can generate tonnes of carbon equivalent emissions. Under Article 7.5, only Annex A or B Parties may acquire those tonnes of carbon equivalent emissions. And under Article 7.6, private sector entities, even after receiving authorization from a Party, are limited to "participat[ing] in actions leading to generation, transfer and receipt under this Article of tonnes of carbon equivalent emissions." Again, the private sector entities cannot, themselves, engage in emissions trading.

The proposed construction of Articles 6 and 7 and lack of details would appear to virtually eliminate the functioning of an international market in tradable permits. Instead, trading, as noted, can occur only between governments. The type of trading activity that would occur between governments, as a practical matter, would likely bear little resemblance to the trading activity that would be expected to occur in a private sector international tradable permits market if the program works as its proponents contend. Is the Administration intending an international governmental trading system? Who will

make the trades, pay for the tonnes, and receive the tonnes and money? If not, when will we learn the details for evaluation by industry, labor, and others?

Article 3 - Measurement and Reporting

M. Article 3.5 suggests that the transfers of tonnes of carbon equivalent emissions under Articles 6 and 7 would be reported to the Convention Secretariat annually. Do you intend that the Secretariat would perform the role in trading that EPA does under Title IV of the CAA and if so is annual reporting adequate? If not, what entity should perform that role and what is the purpose and need for a Party to also report to the Secretariat? What are the advantages and disadvantages to the U.S. of an international entity performing the EPA-type role in trading?

Article 7 - Joint Implementation (JI)

N. Article 7.2(b) uses the term "additional" which is not defined or explained. The definition of "additional" and the methodology for calculating greenhouse gas reductions from JI projects must be determined in order to estimate the magnitude of the cost savings due to JI. How will the Administration obtain this information in order to factor the cost savings of JI into its economic analysis?

February 14, 1997

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K. Article 6 provides that a Party "may authorize" any domestic entity to participate in actions "leading to transfer" of tonnes. What "actions" do you have in mind for this entity? In the case of the CAA, the trades are between utilities with reporting to the Environmental Protection Agency. Is that same approach likely to be accepted on an international scale if the domestic entity is a non-governmental organization in one country and a government agency in another?

L. As noted, Article 6 authorizes trading between Parties. However, unlike the CAA no mention is made of trading by private sector entities that will likely need such trading to operate. Also, unlike the CAA it does not allocate, or provide for an allocation of, the initial tonnes for various industries and sources to operate or indicate whether such industries and sources will be faced with penalties for continuing to operate without such allocation if such a program is initiated.

It only allows private sector entities, after receiving authorization from a Party, to "participate in actions leading to transfer and receipt..." of carbon equivalent emissions. Therefore, it appears that private sector entities can only suggest to Parties that certain emissions trading transactions take place. This imposes significant constraints on private sector international emissions trading, establishes a bureaucracy involving two separate governments or their designees between the private sector and the completion of trades, lowers any possible expectation that private sector entities would receive any benefit from trades, and makes the private sector subservient to the political and policy whims of governments in order to carry out what industry does best, i.e., produce goods and services and employ workers.

The wording of Article 7 on Joint Implementation carries the same structure and constraints. Under Article 7.1, any Party can generate tonnes of carbon equivalent emissions. Under Article 7.5, only Annex A or B Parties may acquire those tonnes of carbon equivalent emissions. And under Article 7.6, private sector entities, even after receiving authorization from a Party, are limited to "participat[ing] in actions leading to generation, transfer and receipt under this Article of tonnes of carbon equivalent emissions." Again, the private sector entities cannot, themselves, engage in emissions trading.

The proposed construction of Articles 6 and 7 and lack of details would appear to virtually eliminate the functioning of an international market in tradable permits. Instead, trading, as noted, can occur only between governments. The type of trading activity that would occur between governments, as a practical matter, would likely bear little resemblance to the trading activity that would be expected to occur in a private sector international tradable permits market if the program works as its proponents contend. Is the Administration intending an international governmental trading system? Who will

make the trades, pay for the tonnes, and receive the tonnes and money? If not, when will we learn the details for evaluation by industry, labor, and others?

Article 3 - Measurement and Reporting

M. Article 3.5 suggests that the transfers of tonnes of carbon equivalent emissions under Articles 6 and 7 would be reported to the Convention Secretariat annually. Do you intend that the Secretariat would perform the role in trading that EPA does under Title IV of the CAA and if so is annual reporting adequate? If not, what entity should perform that role and what is the purpose and need for a Party to also report to the Secretariat? What are the advantages and disadvantages to the U.S. of an international entity performing the EPA-type role in trading?

Article 7 - Joint Implementation (JI)

N. Article 7.2(b) uses the term "additional" which is not defined or explained. The definition of "additional" and the methodology for calculating greenhouse gas reductions from JI projects must be determined in order to estimate the magnitude of the cost savings due to JI. How will the Administration obtain this information in order to factor the cost savings of JI into its economic analysis?

December 9, 1996

The President
The White House
Washington, DC 20500

Dear Mr. President:

We appreciate your summary of the Administration's position regarding climate change outlined in your letter dated September 17. We share common ground on several critical aspects, including the need for participation by all countries, the rejection of inflexible, harmonized policies and measures, and the effectiveness of market-based mechanisms. We also share your view that responsible stewardship of the environment is interdependent with sustainable economic growth.

However, we still have significant concerns with regard to the U.S. position. While we are encouraged by your call for additional economic analyses and technical assessments, we believe it is imperative that they be conducted using a transparent peer review process to ensure the objectivity and credibility necessary to build support for appropriate policy decisions. We encourage the active involvement of academics, labor, business, think tanks, and other stakeholders, along with consultations with Congress. Policy decisions that can have a significant impact on the U.S. and global economies deserve national debate and broad consensus. Indeed, a premature policy decision that could cost the equivalent of our annual economic growth for a decade warrants careful review and analysis.

Most importantly, we agree that this is a global issue requiring global solutions. Any actions must be predicated on a defined role and timetable for developing nations, which are projected to soon surpass industrialized nations in total carbon emissions. In addition, we need to focus on long-term, comprehensive global solutions that address the environmental, economic and societal consequences of policy decisions.

We remain concerned about the Administration's call for urgent action and the appearance that the U.S. may be prepared to make premature commitments that could have serious economic and competitive consequences. Given the long-term nature of this issue, there is time to reduce scientific uncertainties and to refine the climate models that predict the timing, extent and effect of human impacts on global climate. It is imperative that we take the time to do this right.

We welcome the opportunity for further dialogue on this critical issue as climate change policy has significant implications for America's economic health, for jobs, for the lifestyles of its citizens, and for trade relationships with other nations. You can count on our continued involvement as responsible corporate citizens.

Sincerely,

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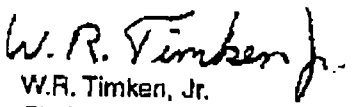

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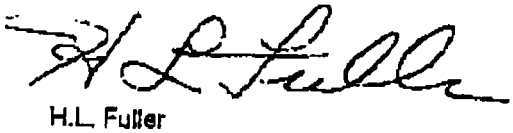

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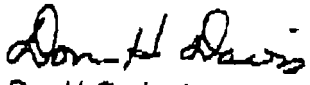

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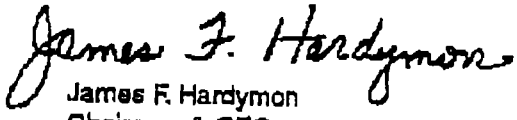

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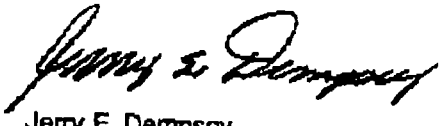

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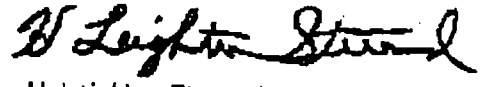

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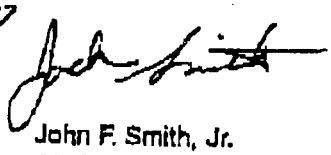

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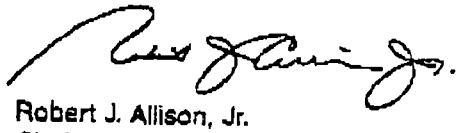

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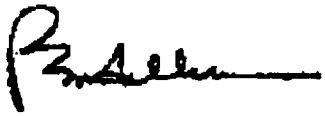

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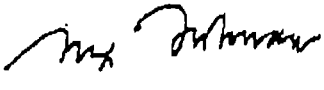

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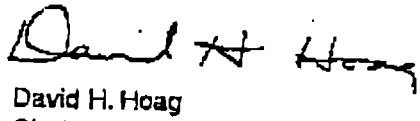

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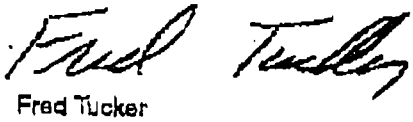

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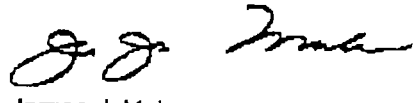

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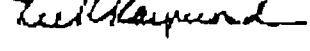

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CC: JAF

Capital Office
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URGENT

PLEASE DELIVER BEFORE AFTERNOON MEETING ON 1/10/97

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FROM: Joe Goffman

DATE: January 10, 1997

Number of pages including cover sheet (5)

ENVIRONMENTAL
DEFENSE FUND

Capital Office
1875 Connecticut Ave., N.W.
Washington, DC 20009
(202) 387-3500
Fax 202-234-6049

To: Participants, Inter-Agency Process on Climate Change

From: Dan Dudek, Joe Goffman, Annie Petsonk

Re: U.S. Protocol Submission for January 15

Date: January 10, 1997

Last July, Undersecretary Wirth transformed the international debate on climate change, establishing the United States' leadership role in that debate. His dramatic statement at the Geneva meetings forged an inextricable linkage between a U.S. commitment to support the development of an international agreement legally binding countries to greenhouse gas emissions (GHG) reduction obligations and flexible compliance elements exemplified by emissions trading and joint implementation for credit. Now, the U.S. has reached the moment when it must provide the international community with the essential details of an international GHG emissions budget and trading program that can fulfill that linkage.

The document submitted by the U.S. at last December's meeting of the Advisory Group on the Berlin Mandate outlined to an impressive and encouraging extent some of the elements of the structure of such a program. Nevertheless, many critical details remained unspecified in the December submission. In addition, the skepticism freely expressed by many other governments and interests, both here and abroad and including the environmental community, testified to the failure of the U.S. to communicate its ideas and intentions convincingly. The severity of this criticism and the apparent absence of a forceful U.S. response to it raises fears that the U.S. would be unable or unwilling to deliver in a final protocol those elements essential to integrating the flexibility and environmental integrity so necessary to the linkage established by Undersecretary Wirth.

That is why it is critical that the upcoming U.S. submission be carefully crafted to ensure that no one misconstrues or dismisses the U.S. commitment to fashioning an international agreement that can achieve political, economic and, above all, environmental success. **We believe that the attached detailed specifications -- which represent a fully integrated design, not merely an accretion of discrete, negotiable elements -- for a GHG emissions budget and trading system can provide the structure for an international regime that meets these demands for success. A protocol that includes only some of these elements and thus meets only some of these tests will justify the vigorous opposition of the environmental community for the fundamental reason that it will not accomplish its environmental objectives.**

We stress the necessity of maintaining the integration of all of the proposed elements set forth here because the test for success of an international GHG protocol is an exacting one. First, an international protocol and the regime it establishes must impose comprehensive and credible GHG emissions obligations. Second, it must ensure compliance by *sovereign nations* whose *voluntary* agreement lies at the foundation of the protocol itself and its implementation. Participants in the protocol also will no doubt demand assurance that their economic aspirations can be met even while fulfilling their GHG emissions requirements. At the same time, the protocol must accommodate the inevitable diversity of nations' domestic responses to their GHG obligations. Finally, to succeed environmentally, the protocol must stimulate early commitments to GHG emissions reductions and to innovation, foster the broadest menu of strategies, tools and opportunities for the development of successful solutions to the GHG emissions problem and maximize participation by both industrialized and developing countries.

In addition, capitalizing on the construct enunciated by Undersecretary Wirth last July, **the proposed design adopts an approach under which those elements affording flexibility to nations and firms and those ensuring the environmental integrity of the system are identical**. Thus, one of the rationales for setting emissions budgets on a 10-year scale, for example, is to ensure that the international community has the necessary time to complete the scientific and technology assessments as well as generate sufficient information (i.e., on the basis of 5 years' experience) about ongoing performance under the then-current budget regime in order to establish the GHG emissions budget for the ensuing period. At the same time, a 10-year budget period affords nations and firms the temporal latitude needed to respond both to their GHG emissions constraints and to changing economic demands, while also forcing nations and firms to take the actions necessary to curb their GHG emissions. **Accurate annual reporting is more crucial to the integrity of a GHG emissions budget and trading system than shortened or more frequent budget periods.**

Similarly, one of the critical features of the proposed design ties an automatic, limited "debt-carryover"-with-interest provision for nations' GHG emissions budgets to penalties for failure to meet budget obligations. This feature exemplifies the iron linkage that must be forged between flexibility and compliance accountability -- just as it is critical to ensuring the balancing of nations' compliance accounts and the atmospheric GHG ledger.

Without these structural and substantive provisions, any protocol negotiated by the next Conference of the Parties to the Framework Convention on Climate Change, scheduled for Kyoto, Japan before the end of the year will merit rejection by the U.S. With these provisions, an international protocol can blaze the path to a global solution to a crucial environmental threat. To ensure this, we urge that the U.S. January 15 submission fully reflect the details of the attached proposal.

We are prepared to offer you extensive support and assistance in the development of this effort both before and after January 15. Thank you for your consideration in this matter.

MINIMUM ELEMENTS OF AN INTERNATIONAL PROTOCOL FOR GREENHOUSE GAS EMISSION REDUCTIONS

January 9, 1997

I. Credible Environmental Goals
- first period of emissions reductions begins by 2005 and ends not later than 2014
- ultimate concentrations of 450 ppmv (CO_2 equivalent), inclusive of all GHG
- Transient constraint: warming rate not to exceed of 1^{o} C per Century

II. Legally Binding Obligations
- For OECD nations and economies in transition. Established on the basis of historic emissions baselines and Set as a cumulative emissions budget
- For other nations, Comprehensive GHG Inventory and Reporting

III. Transparent and Verifiable Annual National Reporting
- all gases, sources and sinks by sector
- all transacted international GHG reductions by country and vintage

IV. Continuing Review and Evaluation Process to Set New Budget Levels
- Assessment of Science
- Review of Progress of the Parties
- Review of Development and Adoption of Technologies
- Then Set New Decadal Emissions Budget

V. International Greenhouse Gas Emissions Trading
- decadal emissions budgets to provide both economic investment, planning, and response flexibility and action-spurring certainty
- banking for both early reductions and debt carryover
- all GHG emissions by sources, uptake by sinks, and transactions in terms of 100-year GWPs
- Joint Implementation, for credit, is an essential element for addressing both graduation and economic competitiveness concerns
  - In nations that have not taken a budget, project-by project crediting with international review
  - For nations with a budget, full international trading of reductions

VI. Enforcement

All GHG reduction obligations remain until discharged

For Cumulative Net Emissions Greater Than Budget But Less Than 110%:
- All Emissions Greater Than Budget Automatically Deducted From Next Budget
- Dispremium (interest) charged on emissions over budget

For Cumulative Net Emissions Greater Than 110% But Less Than 120%:
- Above **Plus** automatic discounting of the non-complier's sold GHG reductions that have not yet been used by other countries for compliance beginning in the year of first occurrence (discounting to be in proportion to amount of non-compliance)

For Cumulative Net Emissions Greater Than 120%:
- Above **Plus** Mandatory COP Review of Party's Non-Compliance

White House Climate Change Task Force

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

October 31, 1997

TO: DISTRIBUTION

FROM: Dirk Forrister

SUBJECT: Path forward based on recent outreach meetings

Over the past few weeks, I have arranged with representatives of the Assistant Secretaries working group on climate change meetings with three industries--air transport, cement, and steel--to discuss climate change policy. I am attaching detailed reports on these meetings for your review. Each contain a set of recommended "next steps" that Assistant Secretaries should consider at an appropriate future meeting. And each produced insights about low cost emission reduction potentials--ranging from 5 to 15%--for technology strategies in those sectors.

For the airline industry, the main issue is whether the Framework Convention on Climate Change (FCCC) should defer to the International Civil Aviation Organization (ICAO) in addressing greenhouse gas emissions from airplanes. At the United States' suggestion, the FCCC's Subsidiary Body for Scientific and Technological Advice (SBSTA) has already agreed to defer the issue temporarily while it requests a report from ICAO on how greenhouse gases should be addressed. Even though the U.S. government has already moved in the industry's direction, the industry is advocating a complete exemption of aircraft emissions in the Protocol, believing that emissions are more properly addressed by ICAO and its aviation experts. To that end, they will craft language for our consideration that would refer emission limitation responsibility for aircraft greenhouse gas emissions to ICAO in a way that (1) assures that action will be taken; and (2) respects the provisions of international law regarding what parties from one treaty can impose/request of parties to another treaty. They also plan to consult with other countries and with ICAO on this matter. On a particularly encouraging note, they provided a MITRE Corporation study indicating that improved air traffic control, measures could reduce emissions by about 12% worldwide. We agreed to convene a future meeting to discuss this study after government experts have reviewed it.

202 343-1060 • Fax 202 343-1162

For our cement industry consultations, we held an initial meeting with Holnam (America's largest cement manufacturer). Holnam believes that we could achieve a 5-15% reduction in cement industry emissions, while reducing costs, by using more cement substitutes. While there are numerous institutional and market barriers to increasing this utilization, there are a number of things that the federal government could do to reduce these barriers. EPA has already begun to work on this through its labeling and federal procurement programs. NIST is working within the American Society of Testing Materials (ASTM) cement committee on possible updated cement specifications to allow more substitutes. The Assistant Secretaries should discuss additional actions that other agencies could take to encourage the use of cement substitutes, particularly in public education and federal procurement.

The steel industry claims it could reduce its emissions 10% below 1990 levels by the year 2010 using voluntary programs, but they oppose mandatory programs. The Assistant Secretaries may want to consider further discussions about mechanisms (e.g., a la the 33/50 program under EPA's toxics programs) whereby the steel industry could make a voluntary commitment that would prompt significant action by this sector. The steel industry also had a number of suggestions for things the government could do. The Assistant Secretaries may be interested in following up on these as well.

I have received requests from a few other groups interested in briefing us on their ideas, but I know your time is very limited. I will be in touch regarding scheduling additional meetings, and Ill promise not to over-burden you.

Finally, I hope you can help me make sure that all of these ideas receive appropriate consideration. Thanks for your interest.

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	Henry Kelly	456-6023	456-6033
CEA	Jeff Frankel	395-6947	395-5046
Treasury	Robert Gillingham	622-2633	622-2220
	Jon Gruber		622-0563
	Karl Scholtz		622-0120
Justice	Lois Schiffer	514-0557	514-2701
	Jim Simon		
Interior	Brooks Yeager	208-4561	208-6182
	Brooke Shearer	208-1873	208-6291
	Mark Schaefer	371-2815	208-4811
NOAA	Terry Garcia	482-6318	482-3567
OMB	T.J. Glauthier	395-4639	395-4561
USTR	Jennifer Haverkamp	395-4579	395-7320
USDA	Charlie Rawls	720-5437	720-6158
DOE	Dan Reicher	586-0148	586-9500
	Mark Chupka	586-0861	586-5523
	Joe Romm	586-9260	586-9220
	Mark Mazur	586-9626	586-7700
EPA	David Doniger		260-2865
	David Gardiner	260-0275	260-4332
DOT	John Lieber	366-7127	366-4544
OVP	Pete Jordan	456-9500	456-9513
PCSD	Marty Spitzer	408-1655	408-5296
CCTF	Dirk Forrister	343-1162	343-1060
	Steve Seidel		
USAID	Sally Shelton-Colby	216-3235	712-1479
	David Hales	216-3174	712-1750
DOL	Ed Montogmery	219-4902	219-5108
DOD	Sherri Goodman	703-693-7011	703-695-6639
NEC	Peter Orszag	456-2223	456-5358
	Bill Antholis	456-5334	456-2198
CEQ/NSC	David Sandalow	456-2710	456-6224

Meeting with Holnam, Inc.
September 5, 1997
Meeting Summary and Proposed Next Steps

Dirk Forrister welcomed the attendees from Holnam and several federal agencies. (See attached list of attendees.) Gary Sauer of Holnam presented background information on the cement industry and explained how CO2 emissions could be reduced by 5 to 15 million tons per year from the U.S. cement industry by using blended cement. Holnam is a U.S. company, held by Holderbank, a global company. Holnam is also in the business of providing cement blending materials such as flyash, slag and limestone.

Sauer said that other countries are doing much more blending than the U.S. He said the barriers are antiquated standards; fragmented markets; and conservatism. Sauer argued that policymakers need to create incentives for reducing CO2 emissions.

Gloria Jeff of FHWA said that the blended cement tends to take longer to reach maximum strenghth; and this can be an issue, especially in the construction industry. The price of blended cement is lower, but there is this tradeoff with setting up time, and quicker set-up times are important. She also said that all concrete uses some flyash--98 to 99% of concrete has some flyash. However, not much slag is being used because it is not widely available.

In Europe, the roads contain more substitutes and they are more durable, but they are rougher. FHWA is conducting a test case in Michigan using European road specifications. FWHA is willing to work with ASHTO to look at specifications for more flyash, and to try to get more research on optimizing strength, durability and set-up times. She is also willing to work on education and training of state highway personnel responsible for state specifications.

Jean Briskin suggested a performance based standard in lieu of a content based standard. Jeff said FWHA already has both performance standards and content standards. M.S. Chawla of the Navy said that the Navy already allows substitution of materials as long as the performance standard is met.

Geoff Frohnsdorff of NIST, and chair of the ASTM cement committee, said he has advocated broade cement substitution for its energy efficiency benefits for nearly 25 years. After decades of work, he expects a draft specificcation for blended cement to be out this year. He said the barriers to broader substitution are lack of familarity and lack of data.

Briskin and Jeff pointed out that there are air quality benefits (in terms of Nox and particulates) as well as CO2 benefits to using blended cement, and that non-attainment areas have an incentive to look at blending. Judi Greenwald suggested that Holnam might want to quantify these benefits.

Mark Bernstein suggested that we might want to consult with the Construction and Building Subcommittee of the National Science and Technology Council.

Tom Rutherford of DOD said that they use a lot of blended cement in construction, so the set up

time is often not a problem. He suggested a federal task force to set up federal purchasing standards as well as a non government standards.

M.S. Chawla of the Navy suggested that we could require blended cement but allow waivers. Thus the norm would become blended cement, but there would still be an "out" when necessary.

Jean Briskin suggested that EPA could work with the cement industry on an energy star labeling program.

PROPOSED NEXT STEPS:

To follow up on meeting suggestions, the Assistant Secretaries climate change working group should consider appointing

1. EPA (Jean Briskin) could work with Holnam (Gary Sauer) on an Energy Star Labelling program and voluntary corporate commitment to reduce emissions. EPA could value Energy Star program benefits as credits under Clean Air Act State Implementation Plans. (See attachment.)

2. PUBLIC EDUCATION AND OUTREACH: FHWA (Gloria Jeff), OSTP (Mark Bernstein) and Holnam (Gary Sauer) could work with ASHTO and NSTCto :

--develop an education and training program on blended cement for highways, housring and other applications

--develop a model state specification aimed at increasing the amount of flyash in highway cement

--develop a joint research program to optimize strength, durability, and set-up time for blended cement

3. FEDERAL PROCUREMENT: EPA (Jean Briskin); DOD (Tom Rutherford), GSA (?), and FHWA (Gloria Jeff) should develop an effective approach (e.g., an executive order) to encouraging agencies to purchase cement that meets the Energy Star labelling requirements to be developed by EPA.

4. NATIONAL STANDARDS: NIST (Geoff Frohnsdorff) should continue working with ASTM to develop a standard for blended cement that can be used by all of the other efforts.

Opportunities to Reduce Carbon Emissions Associated with Production and Use of Cement
September 10, 1997

1. Energy Star Concrete

EPA could label concrete that has low carbon content during its production and use. Low carbon content could be achieved by increasing the amount and frequency of use of mix-ins such as fly ash or slag. As is the case for all Energy Star products, the criteria would be set to assure that product performance was the same or better than non-Energy Star products. Energy Star labeling is an effective way to educate purchasers and the public about environmentally preferable products.

2. Energy Star Pavement

EPA could label pavement that has a high albedo -- reflects heat well. By reflecting rather than absorbing heat, Energy Star pavement could contribute to a reduced urban heat island effect. As part of a comprehensive set of Cool Communities Activities, Energy Star pavement would help slow the formation of ground level ozone (reducing local air pollution) while reducing energy needed for air conditioning in urban areas. The criteria would be set to assure that product performance was the same or better than non-Energy Star products, including assurance of driver safety through no increased glare. Energy Star labeling is an effective way to educate purchasers and the public about environmentally preferable products. EPA has already begun a Cool Communities effort, and is presently identifying communities who wish to test appropriate measures on a pilot basis.

3. Energy Star Pavement/Concrete Procurement Initiative

EPA could work with other federal, state and local agencies to assist them in specifying low carbon concrete and/or reflective paving surfaces through performance rather than content based specifications. EPA has much experience with using procurement initiatives to promote the use of environmentally preferable products by providing model procurement specifications and leveraging key actors to undertake mass procurements. Experience with the Energy Star Computers program has proven that a procurement initiative would be greatly assisted by an Executive Order for federal agencies to follow the procurement specifications where their performance criteria are met by the specified products.

4. Incorporate effects of Energy Star Pavement/Concrete into Clean Air Act State Implementation Plans (SIPs)

EPA has begun to work with states to improve the way in which energy efficiency and other measures are credited into State Implementation Plans (SIPs). By incorporating the effects of Energy Star Pavement /Concrete into SIPs, communities will have an increased incentive to accelerate their adoption of these environmentally preferable materials, because they can contribute to lower cost compliance with the National Ambient Air Quality Standards for ozone and particulate matter. Increased use of fly ash, blast furnace slag or other appropriate mix-ins reduces the combustion of fuel used to make clinker, thereby reducing the emissions of regulated air pollutants, while also reducing emissions of carbon dioxide. Increased use of reflective pavements can cool urban heat islands, slowing the formation of ozone and reducing the need for air conditioning, thereby allowing for more efficient use of electricity, and reducing emissions from power plants.

Sign In Sheet

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GARY SAUER	HOLNAM	313 529 4341	" "
Joanne Briskin	EPA	202 233-9135	202 233-9575
Matt Williamson	EPA	202 233 9094	" " 9578
M.S. CHAWLA	NAVY DEPT	202-433-8760	202-433-8777
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DAVID GARDINER	EPA	202-260-4332/0275	
Jerry L. MALONE	DOT	202-366-6800 /	202-366-3956
GARY BACHULA	DOC	202-482-1091	202-501-2492
GLORIA J. JEFF	DOT	202-366 2240	202-366 9646
Joe Canny	DOT	202-366-4540	366-7127
CHUCK PITCHER	DOC	202-482-0385	482-0382
NAZIR BHAGAT	Doc	(202) 482-3855	(202) 482-5656
Bill Hooke	DOC	(202) 482-5419	(202) 482-4636
DIRK FORRISTER	WH Climate Change TF	202/343-1060	202/343-1162
Mike Mullin	Holnam	313 529-5316	529-5268
MAUREEN SULLIVAN	DoD	(703) 604-0519	(703) 607-4237
Tom Rutherford	DoD		

Meeting with Air Transport Association and Air Industries Association
September 17, 1997
Meeting Summary and Proposed Next Steps

Dirk Forrister, the Chair of the White House Climate Change Task Force, opened the meeting and introductions were made. (See attached attendees list). The business representatives asked about the outreach effort, and Dirk Forrister described the Task Force's activities. Richard Kettler of the ATA began the substantive discussion. He explained that returning to 1990 CO2 emissions levels would require a 25% reduction in air traffic. He said the industry is looking for some recognition in the climate negotiations that ICAO (International Civil Aeronautics Organization) needs to be the only worldwide agency for setting aviation standards. ICAO has been around for almost 50 years; they should remain in charge. Howard Ayleswowrth from AIA pointed out that there are tradeoffs between NOx and CO2 and between environmental performance and safety that ICAO is able to address. He also said that fuel use per passenger mile has been steadily declining. Airlines have an enormous incentive to reduce fuel costs by improving fuel efficiency, regardless of climate change. ATA's counsel said that it is very important that the climate treaty not conflict with the Chicago convention, which sets up an international regime for aviation regulation and provides a process for ensuring that nationsl comply.

Jonathan Pershing of the State Department explained that the United States had successfully inserted language into the Subsidiary Body for Scientific and Technological Advice (SBSTA) at the August negotiating session in Bonn. The language says that Parties should work through ICAO and report to SBSTA. Pershing said that this will essentially defer the issue until ICAO reports back. The industry representatives said that while this language is helpful, it is not suffficient. The industry wants complete deference to ICAO. Pershing said that the Europeans would object to that, and there was a risk that if the U.S. raised this matter and it was explicitly rejected, the aviation industry would be worse off. Pershing also explained that there were many things the U.S wants that no one else wants and that a provision such as the airlines are suggesting could simply become a negotiating target--i.e., people would object because we want it. Pershing suggested that the aviation industry work with their counterparts in other countries and see if they can find support for this.

Judi Greenwald asked what happens if we defer to ICAO, and then ICAO doesn't do anything. The industry representatives responded that the U.S. is a major player in ICAO and that we would work through ICAO to ensure action. Cindy Newberg of EPA said that ICAO is a consensus based organization and that they might not be able to move forward on this, even if the U.S. takes an aggressive stance. Greenwald also asked whether ICAO could do something prior to Kyoto that would give the climate negotiators confidence that they were actually moving forward on this. The industry representatives said that they would work on that. The U.S. Government's representative to ICAO, James Erickson, said that ICAO is aware of this issue.

Jim Conley of the IAM (representing labor) said that the workers are in agreement with the industry on this matter, and that we in the government need to keep the job implications of ths treaty in mind as we move forward.

Jonathan Pershing also handed out and discussed a report, "Special Issues in Carbon/Energy Taxation; Carbon Charges on Aviation Fuels" by the Annex I Expert Group on the UNFCCC. He said that the report describes the difficulties inherent in raising aviaiton fuel taxes, and thinks the report makes it less likely that aviation fuel taxes would be adopted as a common policy and measure. The U.S. position is to oppose any common policies and measures.

At the close of the meeting, industry provided a brief summary of a "MITRE study" that finds substantial greenhouse gas reductions available from air traffic control improvements.

NEXT STEPS

1. The industry will work on Protocol language for our consideration that would refer emission limitation responsibility to ICAO in a way that (a) ensures action will be taken and (b) respects international law regarding what parties of one treaty can impose/request of parties to another treay. The industry will also meet with their international counterparts to identify other countries who would support complete deferral to ICAO on aviaiton greenhouse gases.

2. The industry and the U.S. ICAO representative will try to get ICAO to report to the parties on its greenhouse gas activities prior to the Kyoto negotiating session.

3. NASA and FAA will provide their comments on the MITRE study (on the greenhouse gas reduction benefits of air traffic control improvements) to Dirk Forrister.

4. Dirk Forrister will hold a follow-up meeting to discuss the MITRE study.

Sign In Sheet

NAME	AFFIL	PHONE	FAX
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Greta Creech	NASA	358-1734	358-4066
Howard Aylesworth	AIA	371-8456	371-8471
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John Buscher	United Airlines	296-2337	296-2869
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Susan Walsh	Pratt + Whitney/UTC	202336 7443	x 7421
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Michael Wascom	Air Transport Assn	(202) 626-4033	(202) 626-4408
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JIM MURDOCH	FAA	202-267-7573	267-5594
Pat SNYDER	Dyer Ellis & Joseph for ATA	202 944-3562	944-3068
Mary Raines	Delta	404 715-2705	404 715-2333
RAY BROWN	DELTA AIR LINES	404 715-7230	715-7202
John Montgomery	American Airlines	817-967-1069	967-9352

Meeting Summary
Thursday, September 25
Greenhouse Gas Reduction Opportunities in the Steel Industry

Continuing our outreach efforts on climate change, Agency representatives met with several member companies of the American Iron and Steel Institute (AISI). (See attached list of attendees). AISI requested the meeting to follow up on Bethlehem Steel's suggestions to the President regarding voluntary programs.

Dirk Forrister, Chair of the White House Climate Change Task Force, opened the meeting with introductions. Bruce Steiner made a presentation called "Global Climate Change and the Steel Industry." He said that this issue is important to steel. Steelmaking is energy intensive and largely coal-based (coal is not only an energy source but also a feedstock). The steel industry has made major investments in energy conservation, accomplishing a 45% reduction in energy consumption since 197, without decreasing production. But the pace of reductions is slowing and further reductions are more difficult to obtain. The economic consequences of climate change policy could be devastating to the domestic steel industry, based on studies by Argonne and ESI. The developing countries are major competitors for U.S. steel makers. 4 of the top 10 steelmaking countries--China, Korea, India, and Brazil--are not Annex 1 countries. The U.S. steel industry does not own facilities abroad.

The key issues for the steel industry are : (1) a global solution is needed; (2) maximum flexibility is needed (including voluntary commiments and recognition of progress to date; they applaud Administration's flexibility proposals, but have some questions); (3) taxes and energy reduction mandates should be avoided; and (4) science must lead policy.

The industry has already done a lot to reduce greenhouse gas emissions through more effective utilization of materials; improved energy efficiency in existing processes; other efforts such as Green Lights; development and implementation of new technology; employee and community awareness and education programs; and product-related remission reduction efforts (e.g., participation in PNGV).

THE OVERALL STEEL INDUSTRY EXPECTATION IS THAT THEY CAN ACHIEVE AT LEAST A 10% GREENHOUSE GAS EMISSION REDUCTION BELOW 1990 LEVELS BY 2010 THROUGH VOLUNTARY EFFORTS. This would be achieved through a wide variety of activities--from greater scrap utilization to fuel substitution to reducing plant traffic to replacement of existing units with more efficient new technologies.

AISI also pointed out that the government could do more. They want us to avoid overstatement of the science; work toward more cost-effective regulations; support electricity competition; promote voluntary programs; provide R&D assistance and incentives; promote CO2 sinks; promote joint implementation, technology transfer; and flexibility; promote energy efficiency labelling (taking into account materials and energy use over the whole life cycle); promote life-cycle analysis in procurement policies; develop safe, economical nuclear power; and

include all greenhouse gases.

Judi Greenwald of the WHCCTF commended AISI for their constructive suggestions regarding what the steel industry can do; as well as what the government can do. Denise Swink of DOE said that it is important to keep in mind that all of the technologies don't work all the time. She finds the estimate believable, and suggested that a few concrete examples of what technology has achieved in specific cases would be helpful.

Jean Briskin of EPA said that the steel industry could work with her office and/or DOE on labeling. She said another promising area would be the use of steel slags in cement. She also said that her office works on federal and state procurement guidelines for energy efficient equipment, and would like to work with the steel industry on this. Judi Greenwald asked whether EPA was working on life-cycle labeling in terms of materials, and Jean said no. Bruce Steiner said that the International Iron and Steel Institute is doing a study on life cycle analysis. Jean said that recycled content labelling would also have potential benefits. Jean also siad that the federal advisory committee on clean air, energy and climate might be a useful forum for these ideas.

Denise Swink pointed out that in many states cogeneration facilities have one-stop permitting, which is a big advantage. Diane Regis talked about the Common Sense Initiative, where all the stakeholders have learned that technology is the key. The NGO participants would support targeted investment tax credits. Chuck Carson of USX said that it is important to keep in mind that for many years the steel industry wasn't profitable. Now they've done the hard work and sacrifice to become profitable agin, but there still isn't enough capital to do all the things everyone wants them to do. Diane thinks CSI has had some success in raising the level of appreciation for these capital issues, and for things like plantwide performance standards. Diane also pointed out that there is a continuum between voluntary and regulatory approaches; it's not a purely either/or choice.

Judi Greenwald explained that she would be putting together a more detailed path forward as a result of this meeting. She asked for suggestions from Jean Briskin, Denise Swink and Diane Regis, and from AISI (if they decide they have anything more to add).

NEXT STEPS:

1. EPA (Jean Briskin) and/or DOE (?) could work with the steel industry on labelling (including of recycled content, encouraging the use of steel slags in cement; and on federal and state procurement guidelines for energy efficient equipment.

2. EPA (Diane Regis) could work with the steel industry through the Common Sense Initiative on one-stop permitting, investment tax credits, and plantwide standards.

3. DOE (Denise Swink) could work with the steel industry on coming up with illustrative real-world examples of the benefits of technology.

Opportunities to Reduce Carbon Emissions Associated with Production and Use of Steel
September 30, 1997

1. Label Star for Recycled Content

Using steel scrap consumes less energy and lowers the cost of producing new steel. EPA could label products made from steel (i.e. appliances) that contain a certain specified level of recycled material. Labeling can be an effective way to educate purchasers and the public about environmentally preferable products. Need to research current status of labeling efforts in this area.

2. Energy Star Steel Procurement Initiative

EPA could work with other federal, state and local agencies to assist them in specifying high efficiency equipment. This equipment could include motors which use a higher grade of steel that is more efficient and therefore uses less energy and emits less CO_2 into the atmosphere. EPA has considerable experience with using procurement initiatives to promote the use of environmentally preferable products by providing model procurement specifications and leveraging key actors to undertake mass procurement. Experience with the Energy Star Computers program has proven that a procurement initiative would be greatly assisted by an Executive Order for federal agencies to follow the procurement specifications where their performance criteria are met by the specified products.

3. Incorporate effects of Energy Star Steel into Clean Air Act State Implementation Plans (SIPs)

EPA has begun to work with states to improve the way in which energy efficiency and other measures are credited into State Implementation Plans (SIPs). EPA can work to understand the relationship between energy efficiency and air quality in steelmaking to assure appropriate accrediting of efficiency improvements undertaken by the industry. Mutually agreed upon measures may provide an increased incentive for the industry to accelerate their adoption of energy efficiency measures because they can contribute to lower cost compliance with the National Ambient Air Quality Standards for ozone and particulate matter..

Sign-In Sheet

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GARY ALLIE	INLAND STEEL	219/399-3332	399-603
JIM SCHULTZ	CARGILL/NORTH STAR	612-688-1243	688-129
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cc: JA
JS
JR

Friday, February 21, 1997

Alicia Munnell
Member
Council of Economic Advisers
OEOB Room 314
17th St. and Pennsylvania Ave, NW
Washington, DC 20502

Dear Ms. Munnell:

As you probably know, in January, five preeminent economists -- Kenneth Arrow, Dale Jorgenson, Paul Krugman, William Nordhaus and Robert Solow -- signed the enclosed "Economists' Statement on Climate Change," and circulated it to their colleagues. The Statement has now been endorsed by eight Nobel Prize-winning economists and over 2,300 economists around the country. Never before, even in the case of the Smoot-Hawley Tariff Act, have so many economists endorsed a consensus declaration.

This remarkable consensus has garnered significant attention in the press. For example, Peter Passel of the *New York Times* commented that "the nation's movers and shakers would do well to pay attention" to the statement. The *Washington Post* discussed the Statement in a Sunday editorial that concluded that a "near-term date" should be set for reducing greenhouse gas emissions and that the consequences of inaction on climate change "are likely to be dire." We have enclosed copies of these and other press reports on the Statement.

We expect that the same special interests who continue to dispute the science of climate change will also continue to claim that climate change cannot be mitigated without adversely impacting Americans' standard of living. We believe, however, that the consensus expressed in the Economists' Statement makes such claims untenable, and we hope that the Administration's consideration of mitigation strategies is based on sound economics, just as its consideration of climate science has been based on sound science.

We would welcome the opportunity to discuss any aspect of climate change mitigation with you in greater detail. Please call either of us at (202) 797-6500.

Sincerely,

George Abar

Doug Kendall

Enclosures

ECONOMISTS' STATEMENT ON CLIMATE CHANGE

Endorsed by Over 2000 Economists
including six Nobel Laureates

I. The review conducted by a distinguished international panel of scientists under the auspices of the Intergovernmental Panel on Climate Change has determined that "the balance of evidence suggests a discernible human influence on global climate." As economists, we believe that global climate change carries with it significant environmental, economic, social, and geopolitical risks, and that preventive steps are justified.

II. Economic studies have found that there are many potential policies to reduce greenhouse-gas emissions for which the total benefits outweigh the total costs. For the United States in particular, sound economic analysis shows that there are policy options that would slow climate change without harming American living standards, and these measures may in fact improve U.S. productivity in the longer run.

III. The most efficient approach to slowing climate change is through market-based policies. In order for the world to achieve its climatic objectives at minimum cost, a cooperative approach among nations is required—such as an international emissions trading agreement. The United States and other nations can most efficiently implement their climate policies through market mechanisms, such as carbon taxes or the auction of emissions permits. The revenues generated from such policies can effectively be used to reduce the deficit or to lower existing taxes.

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January 3rd, 1997

Dear Colleague,

As you may know, representatives of the world's nations will convene in Kyoto in December, 1997 to negotiate an international agreement addressing the threat of global climate change due to greenhouse gas emissions. This presents a significant opportunity for the United States to exercise a leadership role in ensuring our long-term well-being. Conversely, a failure on the part of the U.S. government to put forward a well-reasoned position would be a major environmental, economic, and diplomatic setback.

As the climate debate unfolds, it is imperative that public policy be guided by sound economics rather than misleading claims put forward by special interest groups. For this reason, we invite you to join us in endorsing the attached non-partisan consensus statement on the economics of climate change.

Once this statement has been signed by a large number of economists, it will be widely disseminated to leaders in the public and private sectors, and to the general media. This effort is being coordinated by Redefining Progress, a non-partisan, non-profit public policy organization.

Attached please find an endorsement form for your consideration. This letter and endorsement form are being sent to the membership of the American Economic Association. Please feel free to circulate it to your colleagues in case they are not on the AEA mailing list.

We thank you for your prompt attention to this critical issue.

Sincerely,

Kenneth J. Arrow

Dale W. Jorgenson

Paul R. Krugman

William D. Nordhaus

Robert M. Solow

NOBEL LAUREATE SIGNATORIES

Kenneth J. Arrow
Stanford University

Gerard Debreu
University of California at Berkeley

John C. Harsanyi
University of California at Berkeley

Lawrence R. Klein
University of Pennsylvania

Wassily Leontief
New York University

Franco Modigliani
Massachusetts Institute of Technology (Emeritus)

Robert M. Solow
Massachusetts Institute of Technology

James Tobin
Yale University

ECONOMISTS' STATEMENT ON CLIMATE CHANGE

Among the over 2,300 economists who have endorsed the Economists' Statement on Climate Change are the following, they include scholars at top universities and economists from top corporations.

Michael C. Barth	ICF Kaiser
William J. Baumol	New York University
Steven Neil Braun	Council of Economic Advisers
W.A. Brock	University of Wisconsin, Madison
Martin Bronfenbrenner	Duke University
John P. Brown	KPMG Econmic Consulting Services
R. Thomas Burge	Proctor & Gamble Pharmaceuticals
Dallas Burtraw	Resources for the Future
Trudy Ann Cameron	University of Los Angelos California
Jian Cao	AT&T
Carl F. Christ	Johns Hopkins University
Gerard Debreu	University of California at Berkeley
Stephen J. DeCanio	University of California at Santa Barbara
Robert Dorfman	Harvard University
Franklin M. Fisher	Massachusetts Institute of Technology
Peter J. Francis	CNA Corporation
Victor R. Fuchs	Stanford University
Claudia Goldin	Harvard University
Edward Gramlich	University of Michigan
Jerry R. Green	Harvard University
Frances Hammond	General Motors Corporation
John C. Harsanyi	University of California at Berkeley
Oliver Hart	Harvard University
James J. Heckman	University of Chicago
Albert O. Hirschman	Institute for Advanced Study
Jack Hirshleifer	University of Los Angelos California
Robert Hunt	World Bank
Leonid Hurwicz	University of Minnesota
Christopher Jencks	Harvard University
Gale D. Johnson	University of Chicago
Carl Kaysen	Massachusetts Institute of Technology
Robert Kirchner	PEPCO
Lawrence R. Klein	University of Pennsylvania
J. Kmenta	University of Michigan
Laurence J. Kotlikoff	Boston University
Anne O. Kreuger	Stanford University
Mordecai Kurz	Stanford University
Steven G. Lanning	Bell Labs-Lucent Technologies
Lester Lave	Carnegie Mellon University
David Lui	Southern California Edison
Paul W. MacAvoy	Yale School of Management
Gerald M. Meiser	Stanford University
John R. Meyer	Harvard University
Christopher J. Monroe	AT&T
Richard R. Nelson.	Columbia University
Richard B. Norgaard	University of California at Berkeley
Charles Plott	California Institute of Technology
Richard E. Quandt	The Andrew W. Mellon Foundation
Roy Radner	New York University
Gordon Rausser	University of California at Berkeley
Kenneth Rogoff	Princeton University
David Romer	University of California at Berkeley
Michael Rothschild	Princeton University
Daniel Rubinfeld	University of California at Berkeley
Vernon W. Ruttan	University of Minnesota
Jeffrey Sachs	Harvard University
Thomas Sargent	University of Chicago
F.M. Scherer	Harvard University
T. Paul Schultz	Yale University
M.M. Shahjahan	PEPCO
Steven Shavell	Harvard University
A. Michael Spence	Stanford University
Robert Stavins	Harvard University, Kennedy School
Bruce Stram	Enron Corporation
James Tobin	Yale University
Gordon Tullock	University of Arizona
Hal R. Varian	University of California at Berkeley
W. Kip Viscusi	Harvard Law School
Oliver E. Williamson	University of California at Berkeley

The Washington Pos

Staying Cool

WE NOW KNOW that the old saying attributed to Mark Twain—"We all grumble about the weather but nothing is *done* about it"—is not quite true. By virtue of the coal we burn and the gasoline we use and in a thousand other ways, we all have a great effect on the weather. The earth has grown warmer by about one degree, on average, during the last century, and scientists believe the process is accelerating. If nothing is done to slow global warming, the consequences in the next century are likely to be dire. Much turns on decisions the government must take this year.

After years of debate, few now dispute that the burning of fossil fuels releases gases into the atmosphere which then trap more of the sun's warmth than the planet would otherwise retain. The effects of this are more complex than the term "global warming" suggests. Some parts of the earth are likely to become colder, others drier; monsoon and hurricane paths may shift; storms may become more extreme; sea levels will rise. Many small islands and low-lying coastal areas, such as Maryland's Eastern Shore, are at risk. Relatively small temperature changes could have a dramatic impact on agriculture and even the spread of disease.

At the 1992 Earth Summit in Rio de Janeiro, the United States—which produces something like one-quarter of the world's greenhouse-gas emissions—vowed to reduce them to 1990 levels by the year 2000. It seemed a modest goal, but it won't be met. So last year the administration accepted, in principle, the notion of binding targets. Now nations are negotiating those targets—amounts and dates—hoping to reach agreement at yet another conference in Kyoto in December.

Opponents of meaningful action, led by parts of the energy and utilities industries, have shifted their strategy from attacking the scientists to warning of dire economic consequences. But last week more than 2,000 economists signed a statement challenging the industry claims. The broad array of economists, led by Nobel-Prize winners Kenneth J. Arrow and Robert M. Solow, said that measures to reduce greenhouse-gas emissions need not harm the economy—and "may in fact improve U.S. productivity in the longer run." That's because there are many innovative and energy-efficient technologies just awaiting the right financial incentives to enter the market. In many such fields, U.S. industry leads the way.

The key, then, is for the United States to set a goal that's not pushed off to some distant date like 2020 or beyond. A near-term date would send the signal industry needs to begin seriously investing in more efficient technologies, and the commercialization of such technologies would offer an alternative path for development to giants like China and India. Their economies are sure to grow in coming decades; and if they follow the U.S. path to prosperity, we will all be doing more than just grumbling about the weather.

The New York Times
THURSDAY, FEBRUARY 13, 1997

Economic Scene | Peter Passell

Yawn. A global-warming alert.

But this one has solutions.

STERNLY worded petitions and ringing screeds of principle are as much a part of campus life as grade inflation — which is why Washington rarely takes them seriously. But the nation's movers and shakers would do well to pay attention to a statement on global warming by some 2,000 mostly academic economists.

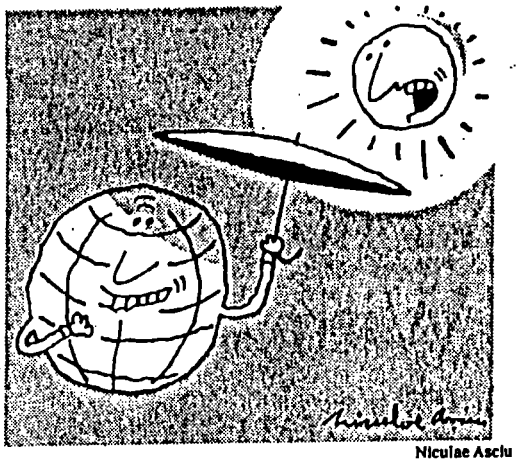
For one thing, the signatures collected by Redefining Progress, a group of policy-minded social scientists based in San Francisco, range from the newish left (Duncan Foley of Barnard College) to the skeptical center (James Heckman of the University of Chicago) to the libertarian right (Gordon Tullock of the University of Arizona). "Market-based approaches to coping with climate change generate as much consensus among economists as free trade," explains Paul Krugman of M.I.T., one of the organizers of the statement.

More important, the statement focuses on what is now regarded by insiders as a make-it-or-break-it issue in slowing atmospheric warming: designing an international system that permits rich economies to contribute cash in lieu of emissions reductions. "Allowing some to pay others to reduce greenhouse emissions could reduce the total cost by 80 to 90 percent," estimates William Nordhaus, an economist at Yale and another organizer of the statement.

• • •

Like any committee looking for consensus, the drafters of the climate statement cast their net widely. "We believe that global climate change carries with it significant environmental, economic, social and geopolitical risks, and that preventive steps are justified," the unshocking introduction reads.

Those who read on, however, will discover there is meat on these bones: "Sound economic analysis," the authors argue, "shows that there are policy options that would slow climate change without harming American living standards."



Niculae Asciu

And what might these policy options be? Here, the drafters stake out a position that seems almost obvious to economists, but has barely entered the consciousness of environmental policy makers. "A cooperative approach among nations is required — such as an international emissions trading agreement," the statement asserts.

To understand where the economists really want the diplomats to go, consider where we are now. Current rates of deforestation and combustion of carbon-based fuels — coal, oil, gas — are adding carbon dioxide into the atmosphere faster than the oceans can absorb it. The higher carbon dioxide concentrations trap solar energy. Rising temperatures will likely change weather patterns radically and raise the level of the oceans.

Governments of all the major economies are vaguely committed to containing greenhouse gas emissions before once-a-century hurricanes become an annual event in the Caribbean, Kansas turns into a dust bowl and the Bay of Bengal doubles in size at the expense of Bangladesh. But the emphasis is on the vague: the process of setting emissions targets or creating political institutions to enforce the targets is in the talking stage.

That's where the economists' statement fits in. "We wanted to be there early," said Stephen DeCanio of the University of California at Santa Barbara, "before governments and politicians were locked into positions." Specifically, the statement is intended to give the Clinton Administration some help in pressing the idea of creating an international market in emissions permits at the next global meeting on climate change, set for Kyoto, Japan, in December.

The idea is simple. If and when world leaders start to deal with the practical issues, they are apt to set national targets for containing emissions that will be very expensive to meet in the rich industrial economies, and probably won't be honored in the large emerging economies like China, Russia, India and Indonesia.

Creating an emissions trading system that allows already rich economies to pay the emerging economies to use less energy and less carbon-intensive fuels as they develop offers a double dividend. It reduces the cost for developed countries, in turn reducing the chances their legislatures will balk. And it creates a pool of capital to be used as an incentive to push emerging economies toward environmentally benign growth.

Translation: Getting, say, China or India to switch from coal to natural gas, or to encourage energy conservation by charging world market prices at home would be a lot easier if they were paid billions of dollars each year to do it.

• • •

Not every economist who favors emissions trading signed the statement. "I'm worried it will be used at Kyoto to commit America to useless, expensive unilateral actions in reducing emissions," says Robert Hahn, an economist at the American Enterprise Institute.

But Mr. Nordhaus has very different worries. "Economists haven't been important players in environmental policy over the last 30 years," he said. "This time we could make a difference."

FINANCIAL TIMES

FRIDAY FEBRUARY 14 1997

Economists back call for new carbon taxes

By Mark Suzman in Washington

More than 2,000 US economists, including six Nobel laureates, yesterday endorsed an unprecedented statement calling for new taxes on carbon use and an international emissions trading agreement to help control global warming.

The economists argue that using such market-based policies to limit the growth in greenhouse gas emissions could ultimately prove beneficial for the economy.

"For the United States in particular, sound economic analysis shows there are policy options that would slow climate change without harming American living standards, and these measures may in fact improve US productivity in the long run," the statement says.

Although there are still some sceptics, the overwhelming consensus among economists is a blow for energy companies and other lobby groups which have managed to derail previous attempts to introduce such a carbon tax on the grounds that it would be prohibitively expensive.

It will also put pressure on the Clinton administration to come up with concrete proposals on combating global warming ahead of the international conference on the issue in Kyoto, Japan, next December.

The administration recently indicated its support for emissions trading but has backed away from the idea of a carbon tax.

The statement was drafted by five prominent economists, Mr Kenneth Arrow and Mr Robert Solow, both Nobel prizewinners, Mr Dale Jorgenson of Harvard University, Mr Paul Krugman of the Massachusetts Institute of Technology and Mr William Nordhaus of Yale University.

It was circulated to economists across the country by Redefining Progress, a non-partisan, non-profit public policy organisation based in San Francisco.

The statement cites scientific evidence from the United Nations-sponsored Intergovernmental Panel on Climate Change in 1995 to argue that "preventive steps are justified" to combat the "significant environmental, economic, social and geopolitical risks" associated with global warming.

Specifically, it calls for the US and other countries to co-operate on reforms such as carbon taxes and the auction of internationally tradeable emission permits. "The revenues generated from such pol cies can effectively be used t reduce the deficit or to lower exis ing taxes," it says.

Mr Stephen DeCanio, senior ec nomic fellow with Redefinin Progress, said the statement aimed at persuading the US t take an international lead in con bating global warming.

"Some groups have asserted th we cannot address the global cl mate change problem witho incurring serious economic harm, he said. "These 2,000 economis have said essentially the opposi – that the greatest risks lie wit inaction."

THE WALL STREET JOURNAL

THURSDAY, FEBRUARY 13, 1997 B

Group of Economists Seeks Treaty on Global Warming

By a WALL STREET JOURNAL *Staff Reporter*

WASHINGTON — A group of 2,100 economists signed a statement calling for international controls to prevent global warming, asserting that such controls would not harm Americans' standard of living and "may in fact improve" the nation's economic productivity.

The statement—to be announced here today — takes issue with a letter by more than 100 chief executives of U.S. companies sent to President Clinton in December that warned that a global treaty "could have serious economic and competitive consequences."

The proposed treaty would control emissions of carbon dioxide and other "greenhouse gases" that many scientists believe are slowly warming the planet by trapping sunlight. In their letter, the CEOs also warned the president to avoid making "premature commitments" because of "scientific uncertainties" that require further study.

But Kenneth J. Arrow, a Nobel Prize-winning economist at Stanford University who helped shape the agreement among the economists, said they believe there now is enough scientific research to establish that man-made causes of global warming will have a "significant" detrimental effect on climate.

The Washington Pos

FRIDAY, FEBRUARY 14, 1997 A3

Economists Urge Reduced U.S. Emissions

Reuter

More than 2,000 economists said in a statement yesterday that the United States would be able to reduce its industrial emissions to slow global climate change without damaging its economy.

Prepared by five leading economists, the statement said well-designed policies relying on market mechanisms "may in fact improve U.S. productivity in the longer run."

Spokesmen for industries that depend largely on fossil fuels such as oil and coal have argued that the threat of climate change from heat-trapping industrial emissions is overblown, and countries should wait for more scientific proof of global warming before implementing policies to slash emissions.

But the economists, who released the statement at a news conference, said climate change "carries with it significant environmental, economic, social and geopolitical risk," and that "preventive steps are justified."

They endorsed a system of "market mechanisms, such as carbon taxes or trading of marketable emissions permits among countries."

Revenues from carbon taxes or emissions credits could be used to reduce budget deficits or lower taxes to benefit the economy, said the statement drafted by Nobel laureates Kenneth Arrow and Robert Solow, as well as Dale Jorgenson of Harvard University, Paul Krugman of the Massachusetts Institute of Technology, and William Nordhaus of Yale University.

Predecisional Draft / Not for Quotation or Distribution
Revised 2/27

OUTREACH PLAN FOR MODELING RESULTS

Objectives:

- Improve Congressional, stakeholder & public confidence in economic underpinnings of negotiating position.
- Support (but not compromise) negotiating strategy.
- Identify any problem spots early enough to respond -- not awaiting critique at end that could spoil value of analytical effort.
- Build on momentum of recent statement by 2,000 economists.

Stage I -- Base case runs and major assumptions -- Mid March

- Release in briefings to Congressional staff (we go to them) and outside groups (invite in).
- Announce formation of peer review panel & process.
  - -- 12 members (Interagency Analysis Team ("IAT") recommends members + Deputies sign-off).
  - -- Selection criteria: macro-economic expertise, range of sectoral expertise (including economics of energy, environment, labar, agriculture, industry, etc.), published & peer reviewed work in the climate change field, independent from government.
  - -- Convened as Climate Modeling Review Panel, with written Charge outlining scope of review provided by IAT. Since we would not seek consensus, but rather individual views, it would not come within the ambit of the Federal Advisory Committee Act [*see Natural Resources Defense Council vs. Herrington*, 637 F. Supp. 116 (D.D.C. 1986)].
  - -- Base case & assumptions would be presented to the Panel by Ehrlich group in mid March, and Taskforce members would be invited to provide review comments and recommendations for improvement within 2 weeks (early April).

Stage II -- Modeling Runs -- Late April to Early May

- Provide confidential briefings to Congressional staff (and Members, where requested).
- Convene Panel to hear Ehrlich's presentation on modeling results and key interpretations; they respond with written comments within 2 weeks. *This process would not become public until stage III.*

Stage III -- Public Workshop on Modeling & Results -- Early June

- Opportunity for full public participation.
- Full economic analysis offered to Congress.
- Ehrlich group presents full package: basecase, runs, assumptions and interpretations of results.
- Peer review panel responds with individual review and comments.
- Ehrlich group provides response re: how we dealt with recommendations.
- Audience participates in question and answer session with Ehrlich group and review team.
- Package put on internet for public at large to consider.
- Package put in Federal Register as Notice for public at large.

REDEFINING PROGRESS
ONE KEARNY STREET • 4TH FLOOR • SAN FRANCISCO • CALIFORNIA 94108
Telephone 415.781 1191 • Facsimile 415.781 1198

Joe Gravelle
& Elsa Cleveland

January 14th, 1997

8 labels
2,420

Mr. Jeffrey Frankel
Member Designate
Council of Economic Advisors
OEOB Room 315
Washington, DC 20502

Mailing
Letter

Dear Mr. Frankel,

We want to bring to your attention the enclosed "Economists' Statement on Climate Change." The statement – originally drafted by Kenneth Arrow, Dale Jorgenson, Paul Krugman, William Nordhaus, and Robert Solow – is now being circulated for endorsement to the entire membership of the American Economics Association (AEA). We expect a large number of endorsements from economists across the country, after which an official public announcement will be made in mid-February.

This initiative is being coordinated by Redefining Progress, a non-partisan, non-profit public policy organization. We are pleased to provide you with advance notice of this undertaking.

As you will notice, the attached statement represents a remarkable consensus. It not only provides strong support for the United States to seek an international agreement on climate change, but also a rebuke to those who claim that any meaningful effort to mitigate climate change will devastate the economy.

We would welcome the opportunity to discuss this initiative or the economics of climate change in more detail. Please call Ted Halstead at (415) 781-1191 or Stephen DeCanio at (805) 893-3130.

Most Sincerely,

Ted Halstead
President

Stephen J. DeCanio
Stephen J. DeCanio, Ph.D.
Senior Economist

enclosure

White House Climate Change Taskforce

February 26, 1997

Agenda

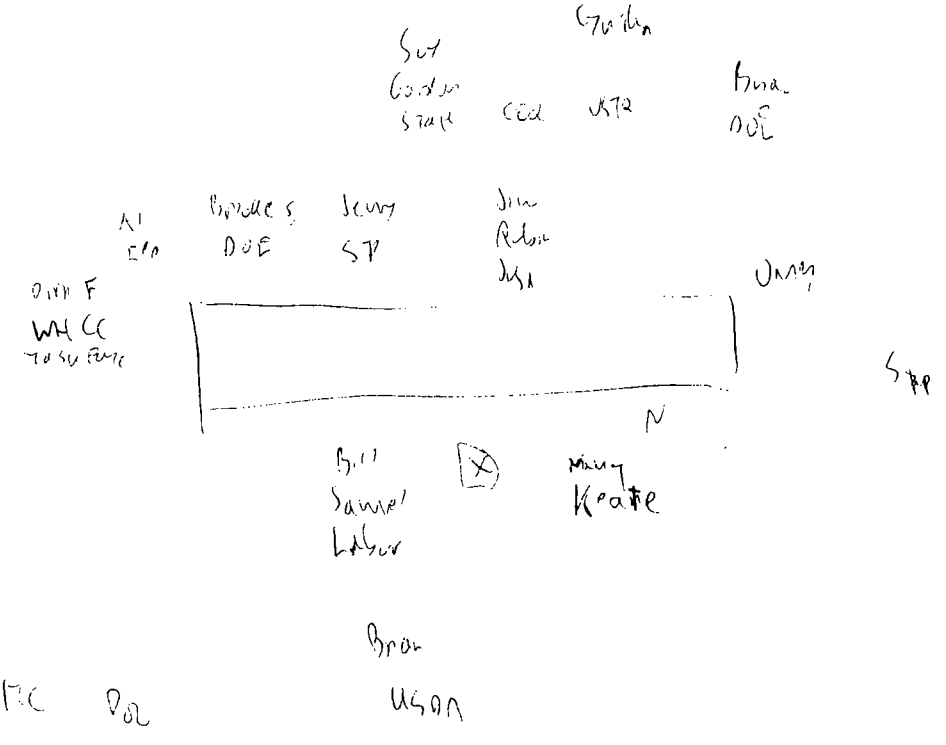
1. Outreach Plan for Modeling Results

- Insights from Hill Discussions
- Objectives
- Straw-person Proposal on Process
- Next Steps

2. Initial Draft Outreach Plan for Year

- Organization
- Key Activities
- Staff Support
- Next Steps

3. Around the Table



- Convene peer review panel to hear Ehrlich's presentation on modeling results and key interpretations; they respond with written comments within 2 weeks. *This process would not become public until stage III. Again no FACA problem with keeping pre-decisional info confidential.*

still not sure outside-circulars
about on this stage.

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OMTech Sandalow mtg

GOAL

To solicit public input on a variety of domestic policy options so that the Administration can be informed as it makes decisions with respect to both domestic and international policy issues, and to communicate the most current Administration thinking regarding domestic policy options and approaches.

TIMETABLE

February 15	Administration produces a white paper regarding overall policy options and publishes in Federal Register.
May 15	Comment Period Closes.
July 15	Administration publishes summary of comments and reactions as part of updated paper.
October 15	Comment Period Closes.
January 15	Administration publishes final paper.
Ongoing	Discussions in specified fora, and in informal meetings with interested parties.

DISCUSSION FORA

President's Council on Sustainable Development

EPA Advisory Committee on Climate Change

Heinz Center Project

Kennedy School Utility Effort

Center for Clean Air Policy Group