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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
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001. list	[Personally Identifiable Information] [partial] (8 pages)	09/00/1997	b(6)
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COLLECTION:

Clinton Presidential Records
Staff Secretary
Todd Stern
OA/Box Number: 11463

FOLDER TITLE:

Meetings- Todd [1]

2019-0774-S

rs3420

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).

RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

J-

from

4-26

mpk.

MEETING

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AMERICAN METAL MARKET

1/23/97

Mtg. M.F.

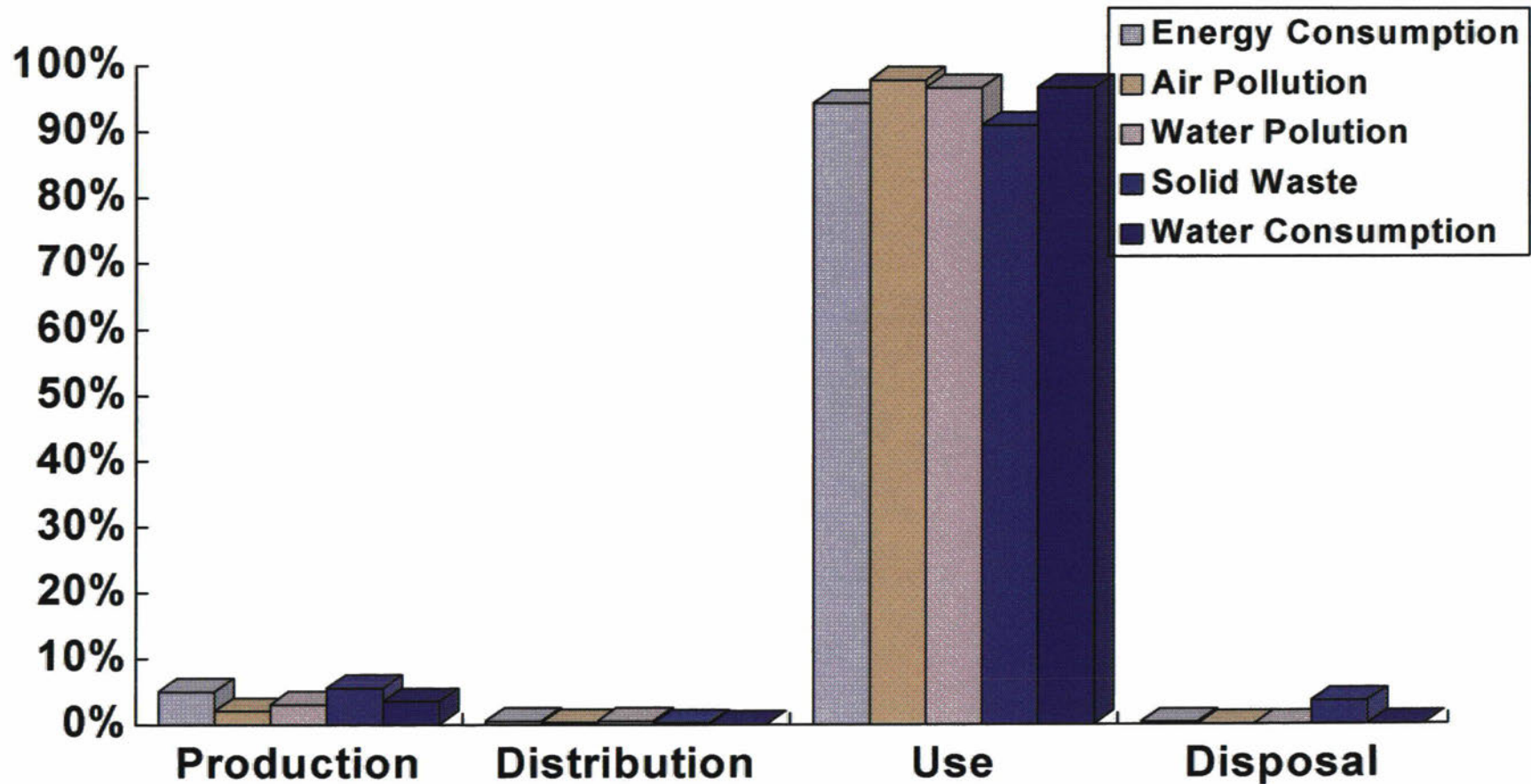
The Major Steel-Producing Countries in 1996

(in millions of metric tons)

Rank		1996	1995	% 96/95
1	China	100.4	95.4	5.2
2	Japan	98.8	101.6	-2.8
3	United States	94.6	95.2	-0.6
4	Russia	49.2	51.3	-4.2
5	F.R. Germany	39.8	42.1	-5.3
6	South Korea	38.9	36.8	5.7
7	Brazil	25.2	25.1	0.6
8	Italy	24.5	27.7	-11.7
9	Ukraine	22.1	22.3	-1.2
10	India	21.8	20.8	4.9
11	United Kingdom	18.0	17.6	2.4
12	France	17.6	18.1	-2.8
13	Canada	14.7	14.4	1.9
14	Mexico	13.2	12.1	9.1
15	Turkey	13.2	12.7	3.3
16	Spain	12.3	13.8	-10.6
17	Taiwan	12.0	11.6	3.1
18	Belgium	10.8	11.6	-6.4
19	Poland	10.3	11.9	-13.8
20	Australia	8.4	8.5	-1.0
21	South Africa	8.0	8.7	-8.5
22	Czech Republic	6.4	7.2	-10.5
23	Netherlands	6.3	6.4	-1.3
24	Romania	6.1	6.6	-7.5
25	North Korea (e)	6.0	6.0	0.0
26	Iran	5.4	4.7	15.3
27	Sweden	4.9	4.9	-0.3
28	Austria	4.4	5.0	-11.5
29	Indonesia	4.3	4.1	4.1
30	Argentina	4.1	3.6	14.4
31	Venezuela	3.7	3.6	4.3
32	Slovak Republic	3.5	3.9	-9.7
33	Finland	3.3	3.2	4.0
34	Kazakhstan	3.1	3.0	2.3
35	Saudi Arabia	2.7	2.5	9.5
36	Egypt	2.6	2.6	-0.9
37	Luxembourg	2.5	2.6	-4.3
38	Malaysia	2.5	2.5	2.0
39	Bulgaria	2.5	2.7	-10.1
	World	750.4	755.8	-0.7

e - estimate

Cradle-to-Grave Assessment of Environmental Impact Example: Clothes Washer



Source: "Ecolabelling Criteria for Washing Machines"
by the UK Ecolabelling Board, August 1992

List for Manufacturing Meeting

Marcia Dalrymple
Harold Russell
Maurice Carino
Tom Jacob
John Palmisano
James Bostic
Gary Risner
David Rinas
Thomas Casten
John Hopkins
Paul Cicio
Michael Thompson

Alcoa
FMC
Bethlehem
DuPont
Enron
Georgia-Pacific
Weyerhaeuser
Holnam
Trigen
Owens Corning
Dow Chemical
Whirlpool

September 25, 1997

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

I. 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 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 manufacture 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 health 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 than 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.

Weyerhaeuser

Gary D. Risner, Federal Environmental Regulatory Affairs Manager

Weyerhaeuser is one of the largest forest products companies in the world. Weyerhaeuser 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); Weyerhaeuser Real Estate, and Weyerhaeuser Mortgage.

Regarding climate change, Weyerhaeuser 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 Officials' 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.

Technology Qs

Feel.
R.D.
etc.

- ① Target / timetable
- ② ~~the~~ Implement'n -- eg JI; Trading
- see probs. w/ trading?
- ③ Role of tech -- what useful for govt
to do
- ④ Trading domestic -- what kind?
grandfathered auctioned
- ⑤ [Taxes + recycled]
- ⑥ views on Kyoto / EU
- ⑦ views on LDCs
- ⑧ Vol'y - P.ships w/ govt.

Bottom up industry by industry
vol'y w/ some trigger?

Take on commitment
but reach then vol'y P.ships
borrowing from next period
if necessary; trigger on cap &
trade if vol'y fails after
12 yrs. Industry challenges -
maybe with small incremental
tax at start.

September 25, 1997

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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 manufacture 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 health 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 than 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.

Weyerhaeuser

Gary D. Risner, Federal Environmental Regulatory Affairs Manager

Weyerhaeuser is one of the largest forest products companies in the world. Weyerhaeuser 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); Weyerhaeuser Real Estate, and Weyerhaeuser Mortgage.

Regarding climate change, Weyerhaeuser 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 Officials' 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.

Withdrawal/Redaction Sheet

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Clinton Presidential Records
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Todd Stern
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Meetings- Todd [1]

2019-0774-S

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RR. Document will be reviewed upon request.

Mtgs - Churches

Date: September 23, 1997

To: Jonathan Adashek

From: Jaydee Hanson

Re: Meeting of National Council of Churches Representatives with Todd Stern Re. Climate Change

The following members of the National Council of Churches' Eco-Justice Working Group will meet with Mr. Stern at 5pm. I am pleased that several that I thought would have to make flights were able to change them.

Bernadine McRipley, Presbyterian Church, USA, & Co-Chair Eco-Justice Working Group

(b)(6)

Shantilal Bhagat Church of the Brethren

Edwin C. Dreby IV, Philadelphia Yearly Meeting of Friends,

Richard Kilmer, Staff, NCCC

Beverly Meeker, Episcopal Church,

Christine Wood, Antiochian Orthodox Church,

Jaydee Hanson, United Methodist Church,

274-3121

Todd Hagg

**Tuesday, September 9, 1997 -- 11:30 a.m.
Meeting Attendees**

**Robert (Bob) Moss
Vice President
American Automobile
Manufacturers Association**

B-day:

S.S.#:

(b)(6)

**Thair Phillips
Associate Director of Public
Affairs
Seniors Coalition**

B-day:

S.S.#:

**Jerald (Jerry) Jasinowski
President
National Association of
Manufacturers**

B-day:

S.S.#:

**Karen Kerrigan
President
The Small Business Survival
Committee**

B-day:

S.S.#:

**Robert (Bob) Stallman
Texas President
American Farm Bureau
Federation**

B-day:

S.S.#:

**Frederick (Bill) Banig
Executive Assistant to
Secretary Treasurer
United Mine Workers of
America, AFL-CIO**

B-day:

S.S.#:

**Dennis Stolte
Policy Director
American Farm Bureau
Federation**

B-day:

S.S.#:

**Everett Zillinger
Director, Government Affairs
Fertilizer Institute**

B-day:

S.S.#:

Jonathan

Mtg - La Gar

THE WHITE HOUSE
WASHINGTON

October 3, 1997

TO: DEBBIE SCHIFF

FROM: JONATHAN ADASHEK
CAROL CLEVELAND

Attached is the list of individuals who will be attending the 11:00 a.m. meeting in the Roosevelt Room. All have been cleared through WAVES.

Thank you for all your help.

**PUBLIC POLICY DEPARTMENT
AFL-CIO
815 16TH STREET, N.W.
WASHINGTON, D.C. 20006
FAX #(202)508-6967**

Roosevelt Rm

FAX TRANSMITTAL MEMO

DATE: October 2, 1997

TO: Carol Cleveland

FAX NO. 456-2215

FROM: Maria Denyer - 202-637-5209
Public Policy Department

PAGES: 1
(Total # of participants -- 13)

Hi Carol:

List of participants for tomorrows Climate Change meeting from the AFL-CIO:

NAME	SS#	Date of Birth
Mr. Bill Banig		
Mr. Alan Reuther		
Mr. Richard Miller		
Mr. Bill Klinefelter		
Mr. Will Paul		
Mr. Bob Powers		
Mr. Ed Wytkind		
Mr. Michael Boggs		
Mr. David A. Smith		
Mr. Bradley Burton		
Ms. Jane Perkins		
Mr. Ken Zinn		
Mr. Bill Cunningham		

**Carol -- I will give you a call to verify you have received all thirteen (13) names.
Thanks.**

11:00 - Roosevelt Rm

Todd Mtg

12/19/97

Note To: Jonathan Adashek

Enclosed are the attendees and information for the 5:00pm meeting. Thank you for your assistance with this matter.

John J. Novak

DOB- [REDACTED]
SS# - (b)(6)

Robert Beck

DOB [REDACTED]
SS# [REDACTED]

Richard H. Rosenzweig

DOB [REDACTED]
SS# [REDACTED]

Todd Higgs

CEO ENVIRONMENTAL TECHNOLOGY COALITION MEETING
AGENDA

November 5, 1997

Location: *White House Conference Center
726 Jackson Place, NW
Washington, D.C.*

8:30 **Coffee**

9:00-9:30 **Greeting and Overview:** **Co-Chair, Ralph Peterson**
President & CEO, CH2M HILL
Challenge to Coalition: **Co-Chair, Don Deieso**
President & CEO, EA Engineering, Science & Technologies

9:30-10:00 **Coalition Subgroup Updates**
Subgroups include Clean Air, Regulatory Reinvention, R&D, Exports and Climate Change.

10:00-11:30 **Specific Identification of Where the Coalition Can Help.**
-11:00 A panel to discuss major challenges on climate change over the next six months and areas where the coalition could play a key role.

Gary Hirshberg, CEO, Stoneyfield Farms
Todd Stern, The White House (Message, Outreach, Policy)
Dan Reicher, Asst. Sec. Energy Efficiency (R&D)
Jeff Seabright, USAID (Global Climate Export Strategy)

11:30-12:15 **Working Lunch**
Determine Action Items for Climate Change

12:15-1:15 **Meeting with Katie McGinty, Chair, Council on Environmental Quality**
Report Climate Change Action Items and Make Recommendations to Administration

1:15 **Move to the Indian Treaty Room, Old Executive Office Building**

2:00-3:00 **Meeting with: Fred Hansen, Deputy Administrator, EPA**
Secretary Federico Peña, Department of Energy*
Possible Meeting with Vice President Gore

3:00-3:30 **Discussion of Next Steps**

**CEO Coalition Meeting
November 5, 1997**

Participants

**Ralph Peterson
President & CEO
CH2M HILL
P.O. Box 22508
Denver, CO 80222-0508
Phone: (303) 771-0952, ext. 2400
Fax: (303) 771-0879**

**Mr. Don Deieso
President & CEO
EA Engineering, Science and Technology
11019 McCormick Rd.
Hunt Valley, MD 21031
Phone: (410) 584-7000
Fax: (410) 527-1840**

**Mr. Ben Henneke
President
Clean Air Action Corp.
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Fair Haven, Maryland 20754
Phone: (410) 286-2995
Fax: (410) 286-3463**

**Mr. Lee McIntire
President
Bechtel
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Phone: (415) 768-6110
Fax: (415) 768-3521**

**Dr. Alvin Trivelpiece
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Oak Ridge National Laboratory
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Fax: (423) 241-2967**

Alan Liby
President & CEO
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Fax: 423-481-3142

Mr. Wally Hayes
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Fax: 617-421-7360

Mr. Ken Winger
President & CEO
Laidlaw Environmental Services, Inc.
220 Outlet Point Blvd.
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Fax: 803-551-4348

Mr. Ed Harper
COO
Commodore Environmental Systems
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Fax: 703-748-0201

Mr. Joseph Boren
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70 Pine Street
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Mr. Larry Cody
President & CEO
Public Service Electric & Gas of New Jersey

Ms. Rose McKinney-James
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Mr. Tom Hoog
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Hill & Knowlton
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Mr. Ray Anderson
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Roger Little
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Spire Corporation
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Dr. Edward Kern
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Mr. Bob Stemple
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Fax: 248-280-2697

Michael Bergey
President
Bergey Wind Power
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Phone: 405-364-4212
Fax: 405-364-2078

Mr. John Cirello
President & CEO
Florida Water Services Corporation
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Fax: 407-880-5998

Mr. Jonathan M. Weisgall
V.P. (Attending for CEO David Sokol)
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Fax: 202-828-1380

Mr. Bob Kelly
Chairman
Enron Renewable Energy Corporation
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Fax: 713-646-8870

Mr. John McTague
V.P. Technical Affairs
Ford Motor Co.
American Road
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Fax: 313-845-0512

Mr. Mike Driver
Partner
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Deana M. Perlmutter
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Tel: 1 (202) 328-4800
Fax: 202-667-5233



NEW ZEALAND EMBASSY

37 OBSERVATORY CIRCLE, NW
WASHINGTON, DC 20008

'97 SEP 10 PM4:31

FACSIMILE MESSAGE

DATE: 10 September 1997

TO: Mr Todd Stern
and Guest
White House Climate Change
Taskforce

FAX NO: (202) 456 2215

FROM: Sherryl Short

CHARGE CODE: WSH

PAGE 1 OF: 1

SUBJ: DINNER AT THE NEW ZEALAND RESIDENCE WEDNESDAY 17
SEPTEMBER AT 7.30PM

ATTN JONATHAN

Further to our telephone conversation, the invitation follows for Mr Todd Stern and Guest to attend the dinner hosted by the New Zealand Ambassador, John Wood at his Residence on Wednesday 17 September at 7.30pm in honour of the Honourable Simon Upton, Minister for the Environment. Many thanks



*The Ambassador of New Zealand, John Wood
and Rose Newell*

*request the pleasure of the company of
MR TODD STERN & GUEST
at DINNER*

*on WEDNESDAY 17 SEPTEMBER
at 7.30pm o'clock*

*P.s. o.p.
(202) 328-4858
DRESS: Business*

*New Zealand Residence
27 Observatory Circle*

Mtg/Hi-tech
'97 SEP 25 PM3:32

-EXECUTIVE OFFICE OF THE PRESIDENT-
**COUNCIL ON ENVIRONMENTAL
QUALITY**

ROOM 360
OLD EXECUTIVE OFFICE BUILDING
WASHINGTON, D.C. 20502

PHONE: (202) 456-6224

FAX: (202) 456-2710

TO:

Jahnathan x.6-2245

FROM:

KATHLEEN MCGINTY

ROBERT KAPLA

DATE:

SEP 25 1997

PAGES:

5

(INCLUDING COVER SHEET)

COMMENTS:*List of attendees for tomorrow's
meeting**- RSB*

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Update on Friday 9 am Roosevelt Room Meeting

Jim Wolf, Vice President, Govt Affairs, American Standard Companies

ssn:

DoB:

(b)(6)

Glen Skovholt, Vice President, Honeywell

ssn:

DoB:

Rich Guimond, Corporate Director, Risk Management, Motorola

ssn:

DoB:

Joe McQuire, Director, Legislative and Regulatory Affairs, Allied Signal

ssn:

DoB:

Tim Mohin, Manager, Government Affairs, Intel

ssn:

DoB:

Alice Borrelli, AT&T, Director

ssn:

DoB:

Larry Boggs, Legislative Counsel, General Electric

ssn:

DoB:

Judith Bayer, Director, Environmental Government Affairs, United Technologies

ssn:

DoB:

Bruce McCrodden, VP, External Affairs, BP

ssn:

Dob: 12/6/47

Scott Weiner, President, Ballard Power Systems

ssn:

DoB: (b)(6)

Kevin Fay, Executive Director, International Climate Change Partnership

ssn:

DoB:

Michael Marvin, Executive Director, Business Council for Sustainable Energy

ssn:

DoB:

Stephen Seidel

White House Climate Chnage Task Force

ssn:

DoB:

Confirmed attendees for Manufacturing Meeting at 3 p.m. Friday, September 26

Russell Room

James E. Bostic, Jr., VP, Georgia Pacific
Phone: 404-652-5250; Fax: 404-230-7543

SS#: (b)(6)

Thomas R. Casten, President and CEO, Trigen
Phone: 274-2950

SS#:

Marcia Bresee Dalrymple, Manager, Government Affairs, Alcoa
Phone: 956-5307; fax: 956-5305

SS#:

Harold S. Russell, VP, Government Affairs, FMC
Phone: 956-5220; fax: 956-5235

SS#:

Gary D. Risner, Federal Environmental Regulatory Affairs Manager, Weyerhaeuser
Phone: 293-7222

SSN:

John D. Hopkins, Jr., VP, Legislative Affairs, Owens Corning
Phone: 393-2765; fax: 393-2799

SS#:

Maurice (Mo) Ernest Carino Jr., VP, Federal Government Affairs, Bethlehem Steel
Phone: 775-6211; fax: 775-6221

SS#:

David Rinas, Sr. Vice President, Holnam, Inc.
Phone: 313-529-4389; fax: 313-529-5268

SS#:

Michael Charles Thompson, Director of Government Relations, Whirlpool Corporation
Phone: 616-923-4647; Fax: 616-923-4652

SS#:

Paul Cicio, Global Issues Manager/Government Affairs, Dow Chemical Company
Phone: 429-3411; Fax: 429-3467

SS#:

Tom Jacob, DuPont

DOB: [REDACTED]
SSN: [REDACTED] (b)(6)

John Palmisano, Enron Corp.

SSN:

DoB:

Judith Greenwald

DoB: [REDACTED]
ssN: [REDACTED]

DLT 23 '97 mtg w/ Ag. Staff
(also EPW)

Field Mktg

JEFF BURMAN

LOGGER

44814

DAVID FRENCH

SANTORUM

224-6324

Walt Lukken

Lugar

4-7444

Miko Carlson

Santorum

4-6324

Page Taub

Sentorum

4-6322

Sarah Lister

Senate Agr. Democratic

4-5929

Eric Washburn

Dorschle

4-2321

Ginny Worrest

Sen. Snowe

4-8672

Ben Thinner

Sen. Kyl

4-4521

Stephanie Mercer

Sen. Ag. (Harkin)

4-0014

Keith Yehle

Sen. Roberts

44774

Juka Hathaway

Sen. Graham

4.1546

Angela Marshall

Sen. Baucus

4-2651

Kira Finkler

Sen. Energy & Env.

4-8164

Gerry Hilligan

Sen. Sessions

4-4124

Wayne Hammon

Craig

4-2752

Ethan Tready

Craig

4-4242

PAUL BURGESS

ENZI

4-3424

DEBBIE REED

BOB KERREY

43518

Karl Glasener

Ag. Cmte

4-5830

JOHN RODRIGUEZ

~~RODRIGUEZ~~ LOTT

4-~~3325~~

Dave White

Ag Cmte

4-2468

Richard Foxat

Moynihan

4-445

Melissa Grey

Moynihan

4-4451

Linda Delgado

Boxer

4-355

Sally Kane

Wiberman

4-7203

John Hemphill

Env. & Public Works
Minority

4-7069

List for Hi-tech Meeting

Richard Guimond
Scott Weiner
Judith Bayer
American Standard Cos.
Honeywell
AT&T
GE
Allied Signal
INTEL
BP
Kevin Fay
Michael Marvin

Motorola
Ballard Power Systems
United Technologies
Jim Wolf
Glen Skovholt
Alice Borrelli
Larry Boggs
Joseph McQuire
Tim Mohin
Bruce McCrodden
ICCP
Bus. Council for Sus. Energy

Todd M. G. S. =

THE SMITH-FREE GROUP

Suite 325

1500 K Street, NW
Washington, DC 20005

TELEPHONE
202/393-4760

FACSIMILE
202/393-3516

November 6, 1997

MEMORANDUM

VIA FAX: 456-2878 ✓

Total # pages, including this cover: 1

To: THE HONORABLE GENE B. SPERLING
Attn: Pete Weissman

From: JIM FREE *Jim Free*

I would like to invite you to speak to a group of approximately 40 top level executives at the November 19th meeting of the Global Climate Change Coalition Board. The talk would start at 9:00 a.m. and they would be grateful for whatever amount of time you felt you could give them. For instance, you could speak for ten minutes and have Q&A's for ten minutes.

Thank you for considering this request. My assistant, Leslie Florence, will be in touch with Mr. Weissman or you can call us directly at 626-6140.

Jim
THE SMITH-FREE GROUP

Suite 325
1500 K Street, NW
Washington, DC 20005

TELEPHONE
202/393-4760

FACSIMILE
202/393-3516
1

November 10, 1997

MEMORANDUM

VIA FAX: 456-2223
Total # pages, including this cover: 3

To: PETER ORSZAG

From: JIM FREE

Per our conversation, enclosed is a sheet on The Global Climate Coalition. We are very excited about the possibility of Mr. Sperling speaking to this group on November 19, and appreciate anything you can do to help make it happen. For your convenience, I have also attached our original request.

Please call me if you need further information.



THE GLOBAL CLIMATE COALITION MEMBERSHIP BACKGROUNDER

Global Climate Coalition
1275 K St. N.W.
Suite 890
Washington, D.C. 20005
Tel: 202.682.9161
Fax: 202.638.1043

The Global Climate Coalition (GCC) is an organization of private companies and business trade associations representing more than 230,000 firms. Membership includes a broad range of business from virtually every sector of the US economy. Large manufacturers in the aluminum and paper industry join small businesses with common interests in maintaining the abundant and inexpensive energy that keep American standards of living the envy of the world. Transportation industries such as the airlines, railroads and automobile manufacturers share a common interest in US energy policies along with independent and investor-owned power generating companies, the petroleum industry, chemical firms and owner-managed small businesses across the country. All are represented in the Coalition, the lead business voice on climate change issues.

Established in 1989 to coordinate business participation in the scientific and policy debate on the global climate change issue, the GCC places a high priority on scientific and economic research to advance the understanding of earth systems. The coalition also supports the improvement of climate models and the refinement of the tools necessary for decision-making with respect to long-term scientific and economic strategies to successfully address potential climate change.

Board Membership

ABB Vetco Gray, Inc.
Air Transport Association
Allegheny Power
Aluminum Association, Inc.
American Automobile Manufacturers Association
American Commercial Barge Line Co.
American Forest & Paper Association
American Iron & Steel Institute
American Petroleum Institute
American Portland Cement Alliance
Association of American Railroads
Association of International Automobile Manufacturers
Atlantic Richfield Coal Company
Baker Refractories
Chemical Manufacturers Association
Chevron
Chrysler Corporation
Cinergy
Council of Industrial Boiler Owners
CSX Transportation, Inc.
Cypress-Amax
Drummond Company
Duke Power Company
Edison Electric Institute
Exxon
Ford Motor Company
General Motors
Illinois Power Company
IPSCO Steel Inc.
Mobil Corporation
National Association of Manufacturers
National Lime Association
National Mining Association

National Rural Electric Cooperative Association
Norfolk Southern
Parker Drilling Company
Petroleum Helicopters, Inc.
Process Gas Consumers
Rail Progress Institute
Southern Company
TECO Energy, Inc.
Texaco, Inc.
TRICO Marine Operators, Inc.
U.S. Chamber of Commerce
USX Corporation
Union Electric Company
Virginia Power
Western Fuels Association

General Membership

BHP Minerals
Bethlehem Steel
CONRAIL
Consumers Energy
Dow Chemical Company
ELCON
Eastman Chemical
Goodyear Tire & Rubber Co.
Greencool
Hoechst Celanese Chemical Group
Kaiser Aluminum & Chemical Corp.
McDonnell-Douglas
Northern Indiana Public Service Co.
Ohio Edison
Shell Oil Company
Society of the Plastics Industry
Union Carbide
Union Pacific



'97 NOV 7 AM 10:17

**FAX COVER SHEET****FROM THE DESK OF:**

HANNAH SPILLMAN-SIMONE
MANAGER, POLITICAL AND GRASSROOTS PROGRAMS

EDISON ELECTRIC INSTITUTE
701 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, D.C. 20004

PHONE NUMBER: 202.508.5777
FAX NUMBER: 202.508.5403

PLEASE DELIVER THE ENCLOSED FAX TO:

NAME/COMPANY

Todd Stern / atten: Jonathan

FAX NUMBER:

456-2215

NUMBER OF PAGES SENT:

2

Including cover sheet

If there are any difficulties with this transmission, please contact Anna Gaskins at
202.508.5459.

Message:

701 Pennsylvania Avenue, N.W.
Washington D.C. 20004-2696
Telephone 202-508-5520
FAX 202-508-5300

**EDISON ELECTRIC
INSTITUTE**

EDWIN R. ANTHONY
Vice President, Corporate Affairs
and Member Relations

November 10, 1997

Mr. Todd Stern
Assistant to the President & Staff Secretary
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20500

Dear Mr. Stern:

On behalf of EEI, I am pleased to invite you to address our annual Governmental Affairs Conference, which is being held at The Registry Resort & Spa in Fort Lauderdale, Florida, from January 14-17, 1998. If your schedule permits you to accept our invitation, we would like you to speak on the morning of Thursday, January 15, Friday, January 16 or Saturday, January 17.

EEI is the association of the nation's shareholder-owned electric utilities. Our member companies serve approximately three-quarters of all U.S. consumers. The Conference will bring together approximately 200 governmental affairs and senior management representatives to focus on legislative, political and regulatory issues affecting our industry, customers and the American economy.

We would appreciate your comments on the Administration's views on utility restructuring and the Global Climate Meetings in Kyoto.

Please call Hannah Simone at (202) 508-5777, if your schedule permits you to attend. If you have any questions about the Conference and for assistance with hotel and airline reservations, please contact Sharon Taylor at (202) 508-5476.

Sincerely,


Edwin R. Anthony

ERA:hss

Todd [signature]

Jim
THE SMITH-FREE GROUP

Suite 325
1500 K Street, NW
Washington, DC 20005

TELEPHONE
202/393-4760

FACSIMILE
202/393-3516
1

November 10, 1997

MEMORANDUM

VIA FAX: 456-2223
Total # pages, including this cover: 3

To: PETER ORSZAG

From: JIM FREE

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American Iron & Steel Institute
American Petroleum Institute
American Portland Cement Alliance
Association of American Railroads
Association of International Automobile Manufacturers
Atlantic Richfield Coal Company
Baker Refractories
Chemical Manufacturers Association
Chevron
Chrysler Corporation
Cinergy
Council of Industrial Boiler Owners
CSX Transportation, Inc.
Cyrus-Ames
Drummond Company
Duke Power Company
Edison Electric Institute
Exxon
Ford Motor Company
General Motors
Illinois Power Company
IPSCO Steel Inc.
Mobil Corporation
National Association of Manufacturers
National Lime Association
National Mining Association

National Rural Electric Cooperative Association
Norfolk Southern
Parker Drilling Company
Petroleum Helicopters, Inc.
Process Gas Consumers
Rail Progress Institute
Southern Company
TECO Energy, Inc.
Texaco, Inc.
TRICO Marine Operators, Inc.
U.S. Chamber of Commerce
USX Corporation
Union Electric Company
Virginia Power
Western Fuels Association

General Membership

BHP Minerals
Bethlehem Steel
CONRAIL
Consumers Energy
Dow Chemical Company
ELCON
Eastman Chemical
Goodyear Tire & Rubber Co.
Greencool
Hoechst Celanese Chemical Group
Kaiser Aluminum & Chemical Corp.
McDonnell-Douglas
Northern Indiana Public Service Co.
Ohio Edison
Shell Oil Company
Society of the Plastics Industry
Union Carbide
Union Pacific



THE SMITH-FREE GROUP

Suite 325

1500 K Street, NW

Washington, DC 20005

TELEPHONE
202/393-4760

FACSIMILE
202/393-3516

November 6, 1997

MEMORANDUM

VIA FAX: 456-2878 ✓

Total # pages, including this cover: 1

To: THE HONORABLE GENE B. SPERLING
Attn: Pete Weissman

From: JIM FREE 

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Thank you for considering this request. My assistant, Leslie Florence, will be in touch with Mr. Weissman or you can call us directly at 626-6140.

Todd
Miles

ALCALDE & FAY

GOVERNMENT & PUBLIC AFFAIRS CONSULTANTS

FACSIMILE TRANSMISSION

Confidentiality Note

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DATE: 11/17

TO: Jonathan ADASKE

FAX #: 456-2015

FROM: Rich ROSENZWEIG

NUMBER OF PAGES: Cover Page + 1 Page(s)

COMMENTS:

ALCALDE & FAY

GOVERNMENT & PUBLIC AFFAIRS CONSULTANTS

November 17, 1997

Mr. Jonathon Adashek
Office of The Staff Secretary
The White House
1600 Pennsylvania Avenue, NW
Washington, DC

Dear Mr. Adashek:

The purpose of this letter is to request a meeting with Mr. Stern for representatives of the Edison Electric Institute for the week of November 17. Tuesday or Wednesday would be the best time for such a meeting.

I will follow up with you to determine if there is a convenient time to meet. In the meantime, if you have any questions do not hesitate to contact me at (703) 516-4139. Thank you in advance for your attention to this request.

Sincerely,



Richard H. Rosenzweig

Toda Mts

ALCALDE & FAY

GOVERNMENT & PUBLIC AFFAIRS CONSULTANTS

FACSIMILE TRANSMISSION

'97 NOV 18 AM 10:00

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DATE: 11/18

TO: JONATHAN ADAMS

FAX #: 456-2215

FROM: RICHARD E. ADAMS

NUMBER OF PAGES: Cover Page + 1 Page(s)

COMMENTS:

ALCALDE & FAY

GOVERNMENT & PUBLIC AFFAIRS CONSULTANTS

November 18, 1997

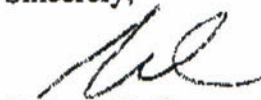
Mr. Jonathan Adashek
Office of the Staff Secretary
The White House
1600 Pennsylvania Avenue, NW
Washington, DC

Dear Jonathon:

Pursuant to my letter to you yesterday, and your return call, I would like for Bob Beck, Vice President, Environmental Affairs, Edison Electric Institute, to accompany me to a meeting with Mr. Stern. There may be one additional EEI representative at the meeting.

Once again, thank you in advance for your attention to this request.

Sincerely,



Richard H. Rosenzweig

Todd M&S

November 18, 1997

MEMORANDUM FOR: GENE SPERLING

FROM: PETER ORSZAG

SUBJECT: Presentation to the Global Climate Coalition on Wednesday

You will be speaking to the Global Climate Coalition tomorrow morning. The session is quite short: 20 minutes total, including Q&A. You and Todd will speak for 10 minutes combined, and then take a total of 10 minutes in Q&A.

Todd and I thought that the following program may make sense:

- You give a brief (5 minute) introduction, which goes over the basic elements of the President's plan;
- Todd gives a brief (5 minute) summary of diplomatic developments;
- You both take 10 minutes of Q&A.

We have informed Jim Free that the 20 minute constraint will be a tight one, and I am going to be very aggressive in making sure that it is obeyed.

This memorandum:

- Provides some background on the Global Climate Information Project, which is closely aligned with the Global Climate Coalition;
- Provides a set of talking points about the President's proposal;
- Provides background and some Q&A.

I. Background on Global Climate Coalition

A. Sponsors of Global Climate Information Project, which is basically the same group as the Global Climate Coalition:

A. Philip Randolph Institute
American Automobile Manufacturers Association
American Corn Growers Association
American Farm Bureau Federation
American International Automobile Dealers Association
American Iron and Steel Institute

American Petroleum Institute
American Plastics Council
American Sheep Industry Association
American Trucking Associations
The American Portland Cement Alliance
Association of American Railroads
The Center for Energy and Economic Development
Chemical Manufacturers Association
Coalition for Vehicle Choice
Edison Electric Institute
The Fertilizer Institute
Global Climate Coalition
National Association of Farmer Elected Committeemen
National Association of Manufacturers
National Automobile Dealers Association
National Black Chamber of Commerce, Inc.
The National Cattlemen's Beef Association
National Farmers Union
National Grange
National Mining Association
National Rural Electric Cooperative Association
Texas Conference of Black Mayors, Inc.
The Seniors Coalition
The Small Business Survival Committee
United Brotherhood of Carpenters, AFL-CIO
United Mine Workers of America, AFL-CIO
United States Hispanic Chamber of Commerce
United Transportation Union, AFL-CIO
U.S. Chamber of Commerce

***B. STATEMENT OF THE GLOBAL CLIMATE INFORMATION PROJECT IN REACTION
TO WHITE HOUSE CLIMATE PROPOSAL: Wednesday, October 22, 1997***

"The Administration's proposal isn't fair to consumers, workers, farmers, seniors and small businesses.

While the President said the U.S. will not adopt binding obligations without developing country participation, the developing nations are adamantly opposed to any new commitments. Without the full participation of developing countries the UN treaty isn't global and will have little or no environmental benefit. The proposal also ignores the clearly expressed views of the U.S. Senate in S. Res. 98, which passed 95-0.

The Administration's reliance on mandated targets and timetables will send shockwaves through the U.S. economy. The arbitrary deadline for stabilization of greenhouse gas emissions would require significant cuts in energy consumption, adversely affecting American jobs and lifestyles.

Now that the Administration's proposal is finally on the table, a national dialogue about the consequences on U.S. jobs and competitiveness can begin in earnest. However, the plan should have been shared with the American people and the Congress much earlier. It is unfortunate that policymakers and the public have only a month before Kyoto in which to debate its pros and cons, as well as alternatives that are environmentally and economically responsible."

C. According to Coalition: How the Treaty Would Affect The Average American

"It is a fact that limiting carbon dioxide emissions will mean significant changes in energy use and energy sources." (Senator John Chafee, Committee on Environment and Public Works hearing, July 17, 1997.) The tie between energy usage and economic growth is well-documented. Using coal, oil and natural gas is a large source of man-made greenhouse gas emission but provides our lowest cost sources of energy. Thus global climate policy has the potential of completely upsetting the economy. Even with market-based measures and trading -- which could result in relatively more cost-effective approaches -- great harm could be done to the world's economy and jobs if the targets and timetables are too stringent. The American people have the most to lose under drastic energy cutback plans. Greenhouse gas emissions caps and cuts will put the U.S. on an energy diet. To return U.S. emissions to 1990 levels by 2010 would require a more than 20% cut in energy use. A proposal by the European Union to reduce greenhouse gas emissions by 15% by 2010 would mean the U.S. would have to cut energy use by more than 30%.

"Reputable economic studies have estimated that such an "energy diet" would result in higher electricity and home heating costs, bigger bills at the gas pumps and more expensive transportation. Charles River Associates, an independent economic research company, has projected that to just return the U.S. emissions to 1990 levels by 2010 would have the following impacts on U.S. consumers:

Consumer Goods	Price Increase %Increase
Refined petroleum products -including gasoline/home heating oil	\$0.50 per gallon 38% / 48%
Electricity	1.93 cents/kWh 23%
Natural Gas	\$2.25 per MCF 46%

A. Some facts that could be useful

- In 1980, real gas prices (in 1997 dollars) were \$2.23 per gallon. In 1981, \$2.27. In 1982, \$2.00. In 1983, \$1.84. In 1984, \$1.73. In 1996, \$1.22. Thus far in 1997, \$1.24.
- According to the Energy Information Administration's most recent projections (the Annual Energy Outlook, released November 12, 1997), *electricity prices are expected to decline 1 percent per year -- and to fall from 6.9 cents per KW hour in 1996 to 5.5 cents in 2020.* (The baseline in this forecast does *not* include climate change policies.)
- According to the same set of projections, carbon emissions are expected to rise at 1.2 percent per year -- so that by 2010, they are expected to be 34 percent above 1990 levels (1803 million metric tons in 2010, relative to 1346 in 1990).
- According to the Energy Information Administration's *Emissions of Greenhouse Gases in the United States* (October 1997), U.S. emissions of greenhouse gases in 1996 increased by 3.4 percent over 1995 emissions.

	1990	1995	1996	% growth, 1990-1996
Carbon emissions	1374	1445	1496	8.9 percent
Total greenhouse gas emissions	1618	1696	1753	8.3 percent

Source: *Emissions of Greenhouse Gases in the United States*. Note that carbon emissions figure differs slightly from that in the *Annual Energy Outlook*.

- \$100 per ton of carbon translates into 26 cents per gallon of gasoline.
- A report issued by the National Environmental Trust (formerly the Environmental Information Center), entitled "Powering the Future: Clean Energy for a Clean Environment" (Friday, Oct. 17, 1997) finds large gains are possible with existing technology. For example:
 - The Harbor Generating Station of the Los Angeles Department of Public Works reports emitting just 655 pounds of carbon dioxide for each megawatt hour of electricity it generates by burning natural gas. That compares with a national average of 1,314 pounds per megawatt hour for all natural gas-fired plants. But such plants vary from that average by up to 40 percent.
 - On the other hand, the Rock River plant operated by Wisconsin Power and Light Co. emits 3,056 pounds of carbon dioxide for each megawatt hour of electricity it generates by burning mostly coal, with some oil and natural gas. That compares with a national average of 2,296 pounds per megawatt hour for coal-fired plants. But such plants vary from that average by up to 33 percent,

regardless of power generating capacity or the age of equipment. That shows how much opportunity for improvement there is.

The report also finds that total U.S. carbon dioxide emissions could be reduced 7 percent if our existing electric power plants all burned fossil fuels as efficiently as the most efficient do now. This assumes just a 20 percent improvement, rather than the larger range of 33 to 40 percent which the statistics suggest is possible.

If better energy efficiency standards for household and commercial appliances -- allowed under statutes passed in 1992 and 1987 -- were issued by the Department of Energy, carbon dioxide emissions would fall another 4 percent. This would also save consumers millions of dollars on their electric bills, since use of electricity would actually fall in this case.

A modest gain in the gas mileage of existing cars and trucks could reduce U.S. carbon dioxide emissions an additional 4 percent, according to a recent Department of Energy report. This would take an improvement of three miles a gallon, readily achievable through simple maintenance steps such as tuneups and proper tire inflation.

Carbon emissions, past/business-as-usual

	Millions of metric tons			Growth rate per year			
	1990	1997	2010 (BAU)	1990-97	1997-2010	1990-2010	1990-2010 (
Buildings	460	511	571	1.51	0.86	1.09	24.13
Industry	452	482	548	0.92	0.99	0.97	21.24
Transportation	432	486	616	1.70	1.84	1.79	42.59
TOTAL	1344	1479	1735	1.38	1.24	1.28	29.09

Possible sources of reductions. Best example: We currently throw out, as waste heat, 2/3 of the energy we use to produce electricity. We believe that much of this waste heat can be captured, and put to good use, through combined heat-and-power systems that use the waste heat from electricity generation to warm buildings and thus reduce the need for separate heating systems. Engineering estimates suggest we could reduce emissions by 20 percent or more without increasing costs.

1. Buildings

- A. Heating (space heating) accounts for 43 percent of building emissions. With improved building designs, fuel cells, and gas turbines, new residential heating systems can be 10 to 25 percent more efficient and commercial heating systems almost 50 percent more efficient.
- B. Heating water accounts for almost 10 percent of building emissions. The best available appliance technology for water heating can increase efficiency by 25 to 30 percent.

2. Transportation

- A. Autos account for 35 percent of transportation emissions. Partnership for a New Generation of Vehicles (PNGV) has a goal of reducing automobile fuel use per mile by a factor of three.
- B. Aircraft account for 13 percent of transportation emissions. A new NASA/FAA/DoD program is studying improvements in aircraft design and air traffic control, with a goal of reducing fuel use per mile by 35 percent in 10 years.

3. Industry

- A. Steam and process heat account for 46 percent of industrial emissions. Combined heat-and-power systems can dramatically reduce CO2 emissions while providing the same industrial output; potential CO2 reductions of up to 2/3.

4. Joint implementation

- A. Chinese coal-fired plants are only 2/3 as efficient as US boilers. Retro-fitting Chinese plants with US boilers saves more money than it costs. *A recent World Bank analysis found that China could reduce its emissions nearly 15 percent -- or roughly 333 million metric tons -- through zero and negative cost energy efficiency improvements.*
- B. Retrofitting Russian apartments saves 30 percent of heat use and saves more money than it costs.

B. Talking Points on President's Climate Change Proposal

I. Science is compelling. Administration believes that climate change is the most significant environmental challenge of our generation. Over 2500 scientists from over 150 countries have endorsed the report of the Intergovernmental Panel on Climate Change (IPCC), which concluded that "the balance of evidence suggests that there is a discernible human influence on climate change." Scientific consensus that on the business-as-usual trajectory, temperatures will increase by between 2 and 6.5 degrees Fahrenheit over the next century. (For reference, cooling in average temperature since last ice age is 9 degrees Fahrenheit.)

II. President's plan is ambitious, but sound and sensible. The target and timetable is to reduce emissions to 1990 levels by the period of 2008 to 2012, and below 1990 levels in the 5-year period that follows. Approach based on five fundamental principles:

1. Guided by the science;
2. Rely on market-based and common sense tools to reduce costs;
3. First look for the win-win, positive solutions that exist (engineering studies suggest that we can reduce emissions by 20 percent at zero or negative cost);
4. Global participation -- global problem that requires a global solution; and,
5. Recognizing the uncertainty, we need to have regular common sense, economic and scientific reviews.

III. Three-stage approach:

- **Stage 1: Priming the Pump Through R&D, Tax Incentives, Incentives for Early Action, Federal Leadership, and Industry Consultations.** The first stage of the President's package includes a 9-point action plan including:

\$5 billion over 5 years in tax incentives and spending for R&D and energy efficiency,

Incentives for early action,

Electricity restructuring,

A set of Federal government energy initiatives, and

Industry-by-industry consultations to explore their best ideas on how to reduce emissions in a cost-effective manner (including market-oriented standards for energy efficiency).

The first economic review would occur near the end of Stage 1.

- **Stage 2: Review and Evaluation.** The second stage, which would begin around 2004, will build upon the programs adopted in Stage 1, by including a review of our progress and an evaluation of next steps as we move toward a market-based permit trading system for carbon emissions. Details of the permit system refined and perhaps tested. Such a permit system is similar in concept to the one that dramatically cut acid rain emissions -- although the scale would be significantly larger than the current acid rain program. The second economic review would occur near the end of Stage 2.
- **Stage 3: Meeting Binding Targets Through Domestic and International Emissions Trading Program.** In the third stage, we would reduce emissions to 1990 levels by 2008-2012, and below 1990 levels in the 5-year period after that, through a market-based domestic and international emissions trading system. Before beginning this third stage, the second economic update and review would allow Congress and the President to evaluate how the economy had responded to a decade's worth of experience in the first two stages of the President's plan. The President is committed to working with labor and Congress to insure that we give proper assistance to any workers dislocated by the changes in energy usage inherent in any climate change plan.

IV. Immediate action plan: 9 Elements

1. \$5 billion in Tax Cuts and Federal R&D: To spur energy efficiency and the development of lower-carbon energy sources, the Administration supports a major new package of tax cuts and R&D spending amounting to \$5 billion over five years. Many of the ideas from the recent report of the President's Committee on Science and Technology (PCAST) will be considered in constructing this package.

2. Credit for Early Action: To provide an immediate incentive for near-term actions to cut emissions, the Administration is committed to ensuring that firms which act early are rewarded appropriately. We will work with companies to build a program that appropriately rewards those who take prompt and early actions before the beginning of the mandatory emissions budget period in Stage 3.

3. Industry-by-Industry Consultations: The Administration challenges key industry sectors to prepare plans over the next 9 months on how they can best reduce emissions, including how the Federal government can remove regulatory hurdles that discourage energy efficiency. The Administration will work in partnership with industry to develop sensible efficiency standards in a variety of areas.

4. Encouraging the Use of Energy-Efficient Products: As the Department of Energy's 5-Labs study illustrates, many existing technologies produce win-win solutions to reducing carbon emissions -- but nonetheless are still not widely used. The President is committed to expanding their reach. He will therefore complement his other programs by engaging in a broad-based effort to expand the use of *existing* energy-efficient technologies -- while also spurring the development of *new* technologies.

5. Federal Procurement and Energy Use: To reduce greenhouse gas emissions from

Federal sources, DOE will spearhead a comprehensive effort that includes expanded performance contracting to make Federal buildings more energy-efficient, improved Federal procurement of energy-efficient technology, and partnerships to improve the energy efficiency of Federal aircraft, ships and vehicles. Federal agencies will also be called upon to assess emissions in major initiatives.

6. *Electricity Restructuring:* To spur further efforts to clean our air and deliver a downpayment on greenhouse gas emission reductions, while saving consumers billions, we will pursue a bold plan to restructure the energy sector. It is time to change the rules that are often more than 70 years old -- stifling innovations that can save money and impede newer, cleaner technologies.

7. *Setting a Concentration Goal for Greenhouse Gases in the Atmosphere:* The goal of the existing climate treaty is to stabilize concentrations of greenhouse gases, but the specific concentration has never been defined. The U.S. supports developing a specific, long-term goal, with the assistance of the National Academy of Science and other appropriate bodies.

8. *Bilateral Dialogues:* In addition to pursuing agreement in Kyoto, the Administration will pursue bilateral dialogues with key developing countries to promote clean energy.

9. *Economics and Science Reviews:* The President proposes regular scientific and economic reviews, to ensure that policy-makers have the best possible information on climate

Q: WHY DIDN'T YOU CONDUCT FORMAL ECONOMIC ANALYSIS?

A: We did. We conducted an intense program of economic analysis in six critical areas, and the conclusions we drew in these key areas are reflected in our policy package:

1. We studied the economic effects of not acting.

-- Several prominent economists, including Bill Cline and Bill Nordhaus, have examined the economic impact of *not* acting to address climate change. They study the costs of climate change in terms of agriculture, sea-level increases, life and morbidity, hurricane damage, and other factors.

-- Their general conclusion is that the cost of allowing climate change to continue unabated could amount to losses of about 1 percent of GDP -- equivalent to about \$80 billion -- in the United States. [Nordhaus, *Managing the Global Commons*, Table 4.1; Cline, *The Economics of Global Warming*, Table 3.4.]

-- Other analysts believe that the effects could be even larger.

CONCLUSION: We concluded that failing to act to address climate change could have substantial economic as well as environmental costs. We therefore put forward an ambitious, but sound and sensible, plan to reduce emissions.

2. We studied the impact of market-based systems to reduce costs.

-- The acid rain system provides the best example. It shows that a tradeable permits system, by harnessing the power of the market, can substantially reduce the costs of achieving an environmental objective.

-- Numerous papers -- including recent ones from Resources for the Future and Robert Stavins of Harvard University ("What Can We Learn from the Grand Policy Experiment? Positive and Normative Lessons from SO₂ Allowance Trading") -- conclude that the acid rain program is a resounding success, with reductions of acid rain ahead of schedule and well below projected cost.

CONCLUSION: Our analysis concluded that market-based systems would *substantially* reduce the costs of addressing climate change. One of our key principles is therefore to rely on market-based systems to reduce emissions. The acid rain tradeable permits system served as the model for our carbon tradeable permits system.

3. We studied the potential for international emissions trading and joint implementation to reduce costs.

-- A series of papers from the Stanford Energy Modeling Forum, which we would be happy to provide to you, highlight the benefits from international emissions trading and joint implementation.

-- Another recent paper (JA Edmonds, SH Kim, CN MacCracken, RD Sands, MA Wise, "Return to 1990: The Cost of Mitigating United States Carbon Emissions in the Post-2000 Period," Battelle, October 1997) also highlights the cost reductions available through international trading.

-- World Bank analysis (including by China experts Charles Feinstein and Kirk Hamilton) has concluded that China could reduce its emissions nearly 15 percent -- or roughly 333 million metric tons -- through zero and negative cost energy efficiency improvements. Note that we only have to reduce by about 400 million metric tons to reach 1990 levels by 2010.

CONCLUSION: Our analysis concluded that international trading and JI could lead to substantial cost reductions. A key aspect of our proposal is therefore to extend permit trading to the international sphere, and to include an innovative program of "Joint Implementation" to allow U.S. firms to pursue low-cost emissions reductions and win-win solutions wherever they may occur.

4. We studied the potential for energy efficiency improvements here at home.

-- The Department of Energy's Five-Labs study ("Scenarios of U.S. Carbon Reductions: Potential Impacts of Energy Technologies by 2010 and Beyond") documents in detail how four key sectors of the economy -- buildings, transportation, industry, and electric utilities -- could expand the adoption of energy-efficiency and low-carbon technologies.

-- A 1991 National Academy of Sciences study, which we could also provide to you, concluded that emissions reductions of 25 percent were available at a cost of less than \$10 per ton (2.6 cents per gallon of gas).

CONCLUSION: Our analysis concluded that there were many win-win solutions here at home -- and that we would work with industry to identify ways of increasing the penetration rate of energy-efficient products.

5. We studied the potential impact of electricity restructuring.

-- The Department of Energy has been working with EPA and other agencies to develop estimates of the carbon emission impact of a appropriately crafted electricity restructuring bill.

CONCLUSION: Our analysis concluded that an appropriately crafted electricity restructuring bill could significantly reduce emissions and save consumers billions of dollars. The President therefore announced his support for such an appropriately crafted bill as part of his climate change plan.

6. We studied the payoffs from R&D.

-- An October 1995 report from the Council of Economic Advisers shows that the rate of return from R&D investments can be quite large.

-- A report from the President's Council of Advisors on Science and Technology (PCAST), led by John Holdren, identified many of the specific R&D areas that would have the highest long-term payoffs in terms of energy efficiency and carbon reductions.

CONCLUSION: Our analysis suggested that a package of R&D and tax incentives could have very large benefits in reducing emissions. We therefore proposed a \$5 billion program over 5 years to provide tax incentives and R&D for carbon-reducing activities.

- [• It's true that we did not rely on macroeconomic models, because we decided that they were incapable of providing a definitive answer to how the economy would behave over the next 13 years. To give some insight into why the macroeconomic effort is so hard, remember that it is hard enough to predict what will happen to the economy next quarter, let alone next year. But the modelling effort involved here has to look ahead 13 years. To get a sense of how hard that is, do you think any econometric model would have predicted 13 years ago that we could possibly have a budget deficit of \$23 billion, an unemployment rate of 4.9 percent, and an inflation rate of 2.2 percent? Or would any econometric model have predicted in 1981 that the real price of gasoline would fall from \$2.27 per gallon to \$1.22 in 1996?]

Q: DON'T ECONOMIC MODELS SUGGEST THAT THIS EFFORT WILL COST MORE THAN 1.5 MILLION JOBS AND TANK THE ECONOMY?

A: Some models may suggest that, but only by ignoring several key elements of the President's plan:

1. They ignore the President's \$5 billion package of tax cuts and Federal R&D: To spur energy efficiency and the development of lower-carbon energy sources, the Administration supports a major new package of tax cuts and R&D spending amounting to \$5 billion over five years.

2. They ignore the potential for increased use of existing energy-efficient products: As the Department of Energy's 5-Labs study illustrates, many existing technologies produce win-win solutions to reducing carbon emissions -- but nonetheless are still not widely used. The President is committed to expanding their reach. The models referenced assume little

change in the penetration rate of existing energy-efficient equipment. Engineering studies suggest that we could reduce emissions by 20 percent at no (or negative cost) by improving the penetration of energy-efficient equipment.

3. They ignore the President's Federal energy initiative: To reduce greenhouse gas emissions from Federal sources, the Department of Energy will spearhead a comprehensive effort that includes expanded performance contracting to make Federal buildings more energy-efficient, improved Federal procurement practices, establishment of a new level of excellence for Federal building construction and renovation, and partnerships to improve the energy efficiency of Federal aircraft, ships and vehicles.

4. They ignore electricity restructuring: To spur further efforts to clean our air and deliver a downpayment on greenhouse gas emission reductions, while saving consumers billions, we will pursue a bold plan to restructure the energy sector. It is time to change the rules that are often more than 70 years old -- stifling innovations that can save money and impede newer, cleaner technologies.

5. They ignore international emissions trading. Two key components of the President's plan are his support for an international system of emissions permit trading, and his commitment that developing countries must participate in the international effort. International trading can substantially reduce the costs of emissions reductions. A recent World Bank analysis found that China could reduce its emissions by 333 million metric tons in 2010 at zero or negative cost.

6. They ignore the economic costs associated with climate change itself. Climate change will lead to increased flooding, sea-level rise, and other dislocation. So looking just at the impact of reducing emissions on GDP is misleading.

Annual Energy Outlook 1998

Real Gross Domestic Product, 1970-2020

- Through 2015, the baseline economic growth forecast is revised slightly upward. The GDP in *AEO98* grows by 2.1 percent through 2015, up from 1.9 percent in *AEO97*. Projected growth in the labor force is similar to *AEO97*, but productivity growth is 1.1 percent in *AEO98* through 2015, up from 0.9 percent in *AEO97*.
- *AEO98* extends the forecast horizon out an additional five years to 2020. The rate of growth for the economy slows in the latter half of the forecast horizon as the labor force grows. From 2010 to 2015, the labor force grows by 0.5 percent and, in 2015 to 2020, slows further to only 0.3 percent. Productivity remains at or near 1.0 percent throughout the entire forecast period.
- More rapid growth is projected for non-energy-intensive industries. Growth in manufacturing is higher in *AEO98*, 2.1 percent raised from 1.9 percent. Growth in energy-intensive industries lags growth in other sectors. Energy-intensive sectors expand by 1.0 percent while non-energy-intensive manufacturing industries grow at a rate of 2.6 percent.

World Oil Price Projections, AEO98 and AEO97 Compared, 1970-2020

- World oil prices grow from \$20.48 a barrel in 1996 to \$22.32 a barrel in 2020.
- Prices are the same in 2015 as in *AEO97*—\$21.48 a barrel. Although world demand for oil is about 3 percent higher in 2015 than in *AEO97*, higher world production keeps the prices at the same level.

Sources of World Oil Supply, 1996-2020

- *AEO98* has a lower assessment of capacity expansion in the Persian Gulf countries of OPEC, which is partially offset by higher production in Nigeria, Algeria, and Venezuela. OPEC production in 2015 is 7 percent lower than in *AEO97*.
- Offsetting lower OPEC production are increases in OECD Europe (particularly Norway), non-OPEC Central and South America (particularly Mexico, Brazil, Colombia, and Argentina), the Former Soviet Union (particularly the Caspian Sea fields), Canada, the Pacific Rim, and China.

Domestic Crude Oil Production, AEO98 and AEO97 Compared, 1970-2020

- Domestic crude oil production declines from 6.5 million barrels per day in 1996 to 4.9 million barrels per day in 2020.

- Because of the similar world oil price projections, the projected crude oil production in *AEO98* is the same as in *AEO97* in 2015—5.2 million barrels a day.
- Compared to *AEO97*, domestic crude oil production in *AEO98* is nearly 400,000 barrels a day higher in the earlier years. Much of the increased oil production is expected from the deep waters of the offshore Gulf of Mexico, where new finds and high flow rates are increasing production.

U.S. Net Import Dependency, 1970-2020

- The percent of U.S. petroleum consumption met by net petroleum imports reached 46 percent in 1996, matching the 1977 peak.
- Through 2020, domestic petroleum production declines and consumption increases. As a result, the percent of consumption met by net imports increases to 66 percent.
- In 2015, domestic crude oil production is the same in *AEO98* as in *AEO97*, but petroleum demand is higher. In 2015, the import dependency increases from 61 to 63 percent.

Lower 48 Natural Gas Wellhead Prices, AEO98 vs. AEO97, 1970-2020

- The lower 48 natural gas wellhead price is \$2.38 per thousand cubic feet in 2015, 9 percent above *AEO97* levels, and reaches \$2.54 by 2020.
- Higher prices are due to two major factors:
 - A more conservative view about the ability to add to the reserve base from available resources, based on the expected pace of technological improvements.
 - Higher drilling costs as indicated by more recent data.
 - Higher production requirements as a result of higher demand. Total demand is 0.5 quadrillion Btu, 2 percent higher, in 2015 than in *AEO97*.

Total Natural Gas Consumption, AEO98 vs. AEO97, 1970-2020

- Natural gas consumption reaches 32 trillion cubic feet by 2020, an increase of 10 trillion cubic feet over current consumption levels.
- Electric generation accounts for most of the increased consumption over the forecast period. In 1996, natural gas met about 9 percent of energy requirements for generation. By 2020, this share reaches 24 percent. Lower projected costs for natural gas generation technologies and increased demand for electricity lead to an increase in natural gas consumption for generation from 3 to 10 trillion cubic feet between 1996 and 2020.

Coal Minemouth Price, AEO98 vs. AEO97, 1970-2020

- Compared to *AEO97*, coal minemouth prices in 2015 are 12 percent lower. Lower prices result from an analysis of more recent data that show a greater impact of productivity on mining costs and prices, reduced costs for Western surface mines as a result of productivity improvements, and a greater shift of production to Western mines.
- Real coal minemouth prices, which began to decline in the late 1970's, decline at a rate of 1.4 percent per year through 2020. In 2020, the price is \$13.27 per ton compared to \$18.50 per ton in 1996.
- Technology improvements, economies of scale, and better mine design have led to strong gains in labor productivity. Competitive pressures both within the industry and vis-a-vis other fuels should lead to continued gains in the future.
- The national average price decline also reflects the continuation of a shift to low-sulfur and low-cost western coals. The share of western coal should surpass that from the east by approximately 2006.

Competitive Pricing Assumptions

- *AEO98* includes electricity industry restructuring plans in those regions with specific announced plans—California, New York, and New England.
- Increased competition is also represented by a shorter capital recovery period, a higher cost of capital, and additional cost reductions.

Electricity Prices, AEO98 vs. AEO97, 1970-2020

- Average electricity prices decline at 1 percent per year between 1996 and 2020, in part as a result of industry competition. Prices fall from 6.9 cents per kilowatthour in 1996 to 5.5 cents in 2020.
- *AEO97* addressed electricity industry restructuring by incorporating the Federal Energy Regulatory Commission actions on open access, lower costs for natural gas-fired generation plants, and early retirements of higher cost coal-fired plants.
- *AEO98* makes additional assumptions about competitive pricing and restructuring:
 - Lower operating and maintenance costs, as indicated by recent data.
 - Lower capital costs and improved efficiency for coal- and gas-fired plants.
 - Lower general and administrative costs.

- Early retirements of higher cost nuclear plants.
 - Changes to the financial structure, including a shorter payback period for capital expansion and a higher cost of capital due to higher risk.
 - Transition to competitive prices in California, New York, and New England, with partial recovery of stranded costs in prices through 2008.
- Because of these assumptions and lower coal prices, average electricity prices in 2015 are 13 percent lower than in *AEO97*.

Electricity Generation from Renewable Energy Sources, AEO98 vs. AEO97, 1990-2020

- In 2015, generation from all renewable sources is lower than in *AEO97*, due to competition with fossil technologies and the competitive pricing assumptions that tend to favor less capital-intensive technologies instead of coal and baseload renewables.
- Hydropower, which currently accounts for approximately 90 percent of renewable generation, had banner years in 1996 and 1997 because of heavy rainfall. In the forecast, hydroelectric generation returns to normal levels, which are on the order of 30 billion kilowatthours lower annually.
- New generation from wind, biomass, and MSW (including landfill gas) essentially offsets the decline in hydropower, due to normal weather assumptions. By 2020, electricity generation from non-hydro renewable sources will represent approximately 2.5 percent of U.S. grid-connected electricity supply.
- Further penetration of renewable generation technologies, which are capital-intensive, is limited by strong competition from fossil fuel sources. Natural gas prices grow slowly over the forecast period and coal prices decline. Generation from all renewable sources remains essentially stable through 2020.
- These projections could change substantially depending on decisions that are made in Kyoto or if some type of renewable portfolio standard is adopted.

Average Annual Growth in Electricity Sales by Sector, 1960-2020

- Continued efficiency improvements and slower population growth yield lower electricity sales forecasts particularly later in the forecast period.

Total Residential Energy Consumption, AEO98 vs. AEO97, 1970-2020

- Total energy consumption increases by 1 percent a year through 2020, reaching 119 quadrillion Btu, an increase of about 27 percent over current levels. In 2015, total

consumption is about 4 percent higher than in *AEO97* because of increased demand in all sectors.

- Total residential energy consumption is higher in 2015 by 3 percent than in *AEO97*. Lower electricity prices, greater use of traditional heating technologies, and a slower pace of efficiency improvements for many types of equipment all contribute to higher demand.

Total Energy Consumption by Residential End Use, 1996 and 2020

- Future growth in energy use for space heating, the most energy-intensive residential end use, should be slowed by higher equipment efficiency and tighter building codes.
- "Other" electricity use (including losses) now accounts for 29 percent of residential energy use and accounts for 39 percent in 2020 as small electric appliances continue to penetrate the market. Personal computers are among the fastest growing uses, with annual growth in delivered energy consumption of 5.3 percent between 1996 and 2020.

Residential Electricity Price & Central AC Stock Efficiency, AEO98 vs. AEO97, 1995-2020

- Lower electricity prices in *AEO98*, relative to *AEO97*, give residential consumers less incentive to purchase high efficiency central air-conditioning systems.
- The stock efficiency of central air conditioners still increases 14 percent between 1995 and 2020 due to the combination of current Federal efficiency standards and stock turnover.

Total Transportation Energy Consumption, AEO98 vs. AEO97, 1970-2020

- Although energy demand increases in all sectors in *AEO98* relative to *AEO97*, the transportation sector accounts for over half the increase in demand in 2015.
- Higher economic growth assumptions, leading to higher travel forecasts, and more modest gains in efficiency combine to increase transportation sector energy use by 8 percent in 2015 compared to *AEO97*.

Total Energy Consumption by Transportation Mode, 1996 and 2020

- Transportation sector energy use increases at an annual rate of 1.6 percent over the forecast period, twice the rate of growth of population.
- Personal highway and air travel account for three-fourths of the increase in transportation sector energy use, spurred by travel growth of 1.5 and 3.7 percent, respectively.

- Low fuel prices and growth in disposable personal income continue the trend toward more powerful vehicles. Over the forecast period, average new car horsepower increases by two-thirds.
- New car fuel economy increases slowly to 30.7 miles per gallon as improved technologies and lighter materials are used to offset consumer demand for greater vehicle performance.

Total Carbon Emissions, AEO98 vs. AEO97, 1990-2020

- Carbon emissions from the use of energy increase at a rate of 1.2 percent a year, due to increased energy demand, the slow penetration of renewables, and the reduction in nuclear generation over the forecast period. In 2010, emissions are 34 percent higher than the 1990 level and are 45 percent higher in 2020.
- In 2015, carbon emissions are 5 percent higher than in *AEO97*, as a result of the higher demand and lower use of renewables.

Total Carbon Emissions by Sector, AEO98 vs. AEO97, 2015

- The sector projections shown in this graph include the emissions from the generation of the electricity used in each sector.
- Because energy demand is higher in all sectors in 2015 compared to *AEO97*, emissions in all sectors increase. Increased use of petroleum in the transportation sector accounts for more than 50 percent of the increased emissions in the *AEO98* projections in 2015.
- Looking at the emissions from electricity generation separately, generation accounts for about one-third of the increased emissions in 2015 compared to *AEO97*, as a result of increased electricity demand and the use of fossil fuel generation to meet that demand.

Country and Region Carbon Emissions, 1990-2015 (MMTCE)

Country/Region	1990	1995	2010	2015
United States	1337	1424	1721	1798
Canada	137	143	182	192
Western Europe	1016	1014	1208	1279
France	113	110	n/a	n/a
Germany	279	241	n/a	n/a
Italy	118	124	n/a	n/a
Netherlands	61	67	n/a	n/a
United Kingdom	173	170	n/a	n/a
Japan	308	361	466	492
Australasia	100	112	127	133
EEFSU	1339	893	1178	1251
Former Soviet Union	1029	653	872	933
Eastern Europe	309	240	306	318
Annex I minus U.S.	2900	2523	3161	3347
Annex I	4237	3947	4882	5145
Mexico	87	97	163	180
Developing Asia	1092	1475	2735	3232
China	625	821	1523	1838
India	159	221	421	490
Other Asia	307	432	792	904
Middle East	203	254	315	344
Africa	205	248	322	352
Central and South America	189	220	382	452
Non-Annex I	1776	2294	3917	4560
World minus U.S.	4676	4817	7078	7907
World	6013	6241	8799	9705

Sources: Energy Information Administration -- International Energy Outlook 1997, conversations with Arthur Rypinski (EIA) and Linda Doman (EIA)

Region Definitions

Western Europe:

Austria*
Belgium*
Denmark*
Finland*
France*
Germany*

Greece*
Iceland
Ireland*
Italy*
Luxembourg*
Netherlands*
Norway
Portugal*
Spain*
Sweden*
Switzerland
Turkey
United Kingdom*

* Countries included in EU bubble

Australasia:

Australia
New Zealand
U.S. Territories

EU Proposal

Member States	Emission Reductions in 2010 For CO ₂ , CH ₄ , and N ₂ O Together (GWP100 Weighted) Compared to 1990
Austria	-25%
Belgium	-10%
Denmark	-25%
Finland	0%
France	0%
Germany	-25%
Greece	+30%
Ireland	+15%
Italy	-7%
Luxembourg	-30%
Netherlands	-10%
Portugal	+40%
Spain	+17%
Sweden	+5%
United Kingdom	-10%

Source: EU Proposal, March 1997 paper, courtesy of State Department