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SWANA

The Solid Waste Association of

ASSOCIATION OFFICES
1100 Wayne Avenue, Suite 700
Silver Spring, MD 20910

MAILING ADDRESS
P.O. Box 7219
Silver Spring, MD
20907-7219

Sent in
Copies to

Joe
Henry/Rosina

Todd
Katie

Rm

October 3, 1997

Mr. T.J. Glauthier
Associate Director for Natural Resources, Energy and Science
Office of Management and Budget
Old Executive Office Building
17th Street and Pennsylvania Avenue, N.W. Room 246
Washington, D.C. 20503

Dear Mr. Glauthier:

As a key participant in President Clinton's efforts to craft an international agreement to reduce greenhouse gas emissions, the Solid Waste Association of North America (SWANA) wants to ensure that you are aware of the important contribution landfill gas utilization projects can make in the economic implementation of any policy intended to reduce such emissions. Collection and utilization of methane emitted from municipal solid waste landfills is an economically feasible and existing technology by which significant greenhouse gas emission reductions can be achieved, and considerable amounts of renewable energy can be produced, within the U.S., as well as within developing countries. Methane gas has 21 times more heat trapping potential than carbon dioxide (CO₂) and the emissions from domestic landfills represent an equivalent amount of CO₂ equal to almost 5% of net CO₂ emissions in the U.S.

SWANA is a 6400-member association of solid waste management professionals in the United States and Canada which has as its mission the advancement of environmentally positive and economically sound solid waste management practices. Please find enclosed a copy of our Policy Statement on the Role of Landfill Gas in Efforts to Control Greenhouse Gas Emissions. The Policy Statement sets forth the many attributes of landfill gas utilization projects and supports the Administration's proposal to create a national and international trading market for greenhouse gas emission reductions.

We hope the information set forth in our Policy Statement will be of assistance to you. We urge you to ensure that landfill gas utilization projects are incorporated as an integral part of the Administration's greenhouse gas reduction policy and implementation programs.

Very Truly Yours,

John H. Skinner

John H. Skinner, Ph.D.
Executive Director
& Chief Executive Officer

enclosure



The Solid Waste Association of North America

ASSOCIATION OFFICES
1100 Wayne Avenue, Suite 700
Silver Spring, MD 20910

MAILING ADDRESS
P.O. Box 7219
Silver Spring, MD
20907-7219

TELEPHONE (301) 585-2898
FACSIMILE (301) 589-7068
HOME PAGE on the Internet:
<http://www.swana.org>

THE ROLE OF LANDFILL GAS IN EFFORTS TO CONTROL GREENHOUSE GAS EMISSIONS

Policy Statement

By

The Solid Waste Association of North America

The Solid Waste Association of North America (SWANA), a not-for-profit association of 6,400 public and private solid waste management professionals, urges the recognition of projects to control and utilize methane gas emitted from landfills in any federal policy whose goal is to control greenhouse gas emissions. Collection and utilization of landfill gas (LFG) is a low-cost method to limit the nation's greenhouse gas emissions and conserve fossil fuels. In addition to improving local air quality, this proven technology provides a two-fold reduction in greenhouse gas emissions:

- through the direct abatement of methane (CH_4), a greenhouse gas 21 times more potent than carbon dioxide (CO_2); and
- by providing a renewable energy source that can preclude the need for fossil fuel combustion, the largest source of greenhouse gas emissions in the U.S.

Projects to collect and utilize LFG can play a significant role in U.S. compliance with the proposed international protocol for greenhouse gas emission reductions now being negotiated under the auspices of the United Nations Framework Convention for Climate Change. Landfill gas control projects offer a cost-effective option for meeting treaty objectives on an international and national basis. Specifically, SWANA strongly believes that any greenhouse gas emissions reduction policy supported by the United States must:

- provide comprehensive coverage of greenhouse gases (including methane);
- provide maximum flexibility to ensure the greatest environmental benefit at the lowest cost;
- establish an allowance trading system for emissions reduction credits; and
- support trading of post-1990 emissions reduction credits on both domestic and international levels.

Introduction to Landfill Gas

The generation of landfill gas, or "LFG", occurs naturally in municipal solid waste (MSW) landfills as MSW decomposes. Landfill gas, primarily methane and CO_2 , constitutes the largest source of methane emissions in the U.S. Methane, as a greenhouse gas, is 21 times more potent than CO_2 . Human beings will always generate solid waste and, for the foreseeable future, dispose of such waste in landfills. Thus, LFG will continue to be a greenhouse gas of concern. This is true,

notwithstanding, that today's integrated municipal solid waste management systems stress, as a priority, waste reduction, followed by composting, recycling and waste-to-energy projects. In 1995, according to the Environmental Protection Agency (EPA), nearly 11.1 million metric tons of methane gas was emitted from U.S. landfills. Based on methane's higher heat trapping potential, this release is equivalent to releasing over 233 million metric tons of CO₂ into the atmosphere, almost 5% of net annual CO₂ emissions in the U.S. (Solid waste in the landfill not yet decomposed into methane, on the other hand, is considered, under international protocol, as a store of sequestered carbon, thereby, reducing the overall "greenhouse effect".)

Left uncontrolled, LFG, in addition to its greenhouse gas effects, can also impair air quality and create odor problems and potential fire hazards. The LFG impairs air quality by contributing to formation of ground-level ozone and it also contains hazardous air pollutants (HAPs). In view of these effects, EPA recently promulgated New Source Performance Standards (NSPS) under Section III of the Clean Air Act (CAA) to control LFG emissions from large landfills. The NSPS requires the gas to be collected and flared to destroy 98% of non-methane organic compounds (NMOCs). Control of LFG emissions is accomplished by installing wells and piping at the landfills to collect the gas. The fact that LFG control can reduce NMOCs, and thereby reduce ground-level ozone and HAPs, will make this technology more important as EPA implements its new, more stringent ozone standard and as it aggressively moves to eliminate hazardous pollutant emissions into the environment. EPA also has a program, the Landfill Methane Outreach Program (LMOP), which encourages collection of LFG on a voluntary basis at smaller landfills.

Because LFG can be used as a fuel, it can replace the use of conventional fossil fuels for heating, industrial processes or to generate electricity. In 1995, 15% of the 11.1 million metric tons of methane gas emitted from landfills was recovered and used to produce energy. This utilization of LFG is recognized as an important energy resource in numerous national reports including President Bush's 1991 National Energy Strategy, the U.S. Department of Energy's 1997 Renewable Energy Annual Report and the 1993 EPA report to Congress on Opportunities to Reduce Anthropogenic Methane Emissions. It is also recognized that in the U.S., fossil fuel combustion is the single largest source of greenhouse gas emissions, primarily CO₂ and nitrous oxide (N₂O). Thus, with LFG utilization projects, greenhouse gas emissions are reduced not only from the landfills but by avoiding such emissions that would have occurred by combustion of fossil fuels. (Pursuant to international protocol, CO₂ emissions from the combustion of LFG do not count as a greenhouse gas since the CO₂ is biogenic in origin and its release merely closes the loop in the natural carbon cycle.)

Existing Federal Greenhouse Gas Programs Which Recognize LFG Utilization

LFG control projects are recognized as a key component of the President's Global Climate Change Action Plan and in the voluntary emission reduction programs of federal agencies. For example, EPA, under its Landfill Methane Outreach Program



(LMOP), encourages landfill owners to reduce greenhouse gas emissions by collecting and utilizing the LFG as a substitute for fossil fuels. (As previously discussed, the utilization of LFG as a fuel provides additional greenhouse gas reductions not achieved by simply collecting and flaring the LFG, the baseline requirement for EPA's NSPS.) Under DOE's Climate Challenge Program, several electric utilities have voluntarily committed to reduce, avoid or offset greenhouse gas emissions by working with SWANA members to control methane emissions at MSW landfills. SWANA members with LFG collection projects are also voluntarily reporting methane reductions to DOE pursuant to Section 1605(b) of the Energy Policy Act of 1992.

LFG Control and Utilization Projects Are A Cost-Effective Option to Reduce Greenhouse Gas Emissions

Utilization of LFG is one of the most cost-effective methods to reduce greenhouse gases in both developed and developing countries. Currently in the U.S., there are over 150 LFG utilization projects in operation and up to an additional 200 projects can become operational within a few years, especially if federal incentives for greenhouse gas reductions are created. The technology to control and reduce methane generated in landfills is well developed and cost-effective, as demonstrated by EPA's adoption of the NSPS for landfills. In the U.S., investments to collect LFG at large landfills are already required to comply with the NSPS standards. The added investment to utilize the gas to displace the use of fossil fuels is also cost-effective when compared to other alternatives for reducing greenhouse gas emissions. For example, the cost of perfecting a technology for fossil fueled power plants to control CO₂ and N₂O emissions is presently unknown, and the cost of switching to cleaner burning fuels could double electricity rates in some parts of the country. Improvements in the transportation sector or in the efficiencies of industrial production processes to reduce greenhouse gases will surely require significant investments and take considerable more time to develop.

In developing countries, as economies and populations grow, the volumes of MSW generated will increase. As these countries move towards more sanitary landfilling practices, LFG emissions will grow. Consequently, LFG utilization projects can provide cost-effective and local energy resources for these developing countries creating immediate economic benefits while significantly reducing greenhouse gas emissions. For example, the World Bank and the United Nations Development Program's Global Environment Facility (GEF), which is charged with financing climate change mitigation technologies, has recently begun a LFG utilization project in China. The GEF has a goal of initiating three pilot projects.

Principles for the Role of LFG Utilization Projects In Policies to Reduce Greenhouse Gas Emissions

The various proposals to reduce greenhouse gas emissions, including those offered as part of the international treaty negotiations now being negotiated under the auspices of the United Nations, have typically set a goal of limiting those emissions in the next



decade to a percentage of 1990 levels. In achieving such a goal, policy makers must recognize the significant and cost-effective greenhouse gas reductions that can be realized by collecting and using LFG. The following principles, several of which are proposed by the U.S. in the international treaty negotiations, must be incorporated in any policy intended to effectively reduce greenhouse gas emissions. These principles will ensure a workable and cost-effective reduction program, in addition to encouraging the use of LFG collection and utilization projects. These principles are:

1) Domestic policies to reduce greenhouse gas emissions must be harmonized with policies for air quality improvement, other relevant environmental management programs, deregulation of the electric utility industry, and energy utilization and production to achieve optimal environmental and economic benefits.

2) All measurable and verifiable post-1990 greenhouse gas emission reductions must be recognized and counted, including:

- reductions incidental to compliance with mandatory reductions for other pollutants (e.g., application of NSPS to reduce non-methane organic compound (NMOC) emissions);
- reductions achieved as part of DOE's Climate Challenge Program and reported pursuant to Section 1605(b) of EPA Act of 1992;
- reductions directly produced in one country by capital investments originating in another country; and
- other voluntary reductions that are measurable and verifiable.

3) Maximum flexibility in reducing greenhouse gas emissions should be allowed through adoption of various direct and indirect means, including support of new or developing technologies that will lead to greenhouse gas reductions.

4) Reduction of greenhouse gas emissions should be achieved at minimum cost primarily through market mechanisms which provide monetary value to greenhouse gas emissions reductions and through priority implementation of proven reduction projects and measures.

5) If binding greenhouse gas emissions limits are adopted pursuant to an international treaty, an allowance trading system for greenhouse gas reductions should be implemented that is modeled after the U.S. acid-rain allowance, free market trading system. The allowance trading system should have the following elements:

- all greenhouse gases, sources and sinks should be included;



- tradeable units should be based on tons of CO₂ or carbon equivalent;
- accurate allocation of allowable tons per country should be based on standardized measurement and accounting methods;
- international and domestic trading should be allowed;
- allocation of a country's allowable tons to all domestic greenhouse gas emission sources should be based on potential to emit; and
- ownership of allowances should be tradeable to third parties.

6) An allowance trading system for greenhouse gas reductions should also:

- allow economic cross-trading of greenhouse gas reductions, SO_x allowances or other tradeable air pollutant allowances; and
- provide weighted greenhouse gas reductions credits based on the level of negative environmental externalities that are avoided or offset (e.g., reduction by LFG energy production should have higher value than by LFG flaring).

In summary, federal policy makers should encourage and support installation of LFG utilization projects, impose economic value on the consequent greenhouse gas reductions, and establish a market trading system for such reductions in any policy and programs that may be adopted to reduce greenhouse gas emissions. Because developing and developed countries will always generate solid waste and are expected to always landfill a portion of such waste, LFG will remain a major greenhouse gas of concern. LFG control and utilization projects are a proven and cost-effective technology that have been recognized as providing a multitude of environmental and energy benefits including reducing methane emissions, which are 21 times more potent as a greenhouse gas than CO₂.



sent in

FAX

'97 OCT 3 AM 7:47

Date: 10/03/97

Number of pages including cover sheet: 8

To:

Todd Stern, Jonathan Ad
White House

Phone: (202)456-2702

Fax phone: (202)456-2215

From:

kbossong@cais.com
Sustain. Energy Coal'n.
315 Circle Avenue, #2
Takoma Park, MD 20912-4

Phone: (1-301)270-2258

Fax phone: (1-301)891-2866

REMARKS:

For Release: October 3, 1997

Contact: Ken Bossong

**250 BUSINESSES, ORGANIZATIONS URGE CLINTON ADMINISTRATION TO SUPPORT
STRONG INTERNATIONAL ACCORD TO REDUCE GREENHOUSE GAS EMISSIONS**

In a letter delivered today, 250 businesses, environmental & consumer groups, and energy policy organizations urge President Clinton to "assume a leadership role in negotiating an international agreement setting [ambitious and] legally binding targets [and timetables] to achieve substantial reductions in the emissions of greenhouse gases by early in the next century." The letter was prepared by the Sustainable Energy Coalition, a coalition of 40+ national organizations.

Noting that many of the signers support a goal of reducing greenhouse gas emissions by 20% below 1990 levels by 2005, the letter stresses that energy efficiency and renewable energy technologies could enable "significant reductions in net greenhouse gas emissions ... in every sector at little or no cost to the economy." It outlines policy options to "help ensure the rapid development, diffusion, and transfer" of these and other new technologies.

The full text of the letter and a complete list of the 250 signers (and the states they are based in) follows.

SUSTAINABLE ENERGY COALITION

315 Circle Avenue, #2, Takoma Park, MD 20912-4836 (301-270-2258; fax: 301-891-2866)

October 3, 1997

Bill Clinton
President of the United States
The White House
1600 Pennsylvania Avenue, N.W.
Washington, D.C. 20500

Dear President Clinton:

We, the undersigned 250 business, environmental, consumer, and energy policy organizations, are writing to express our view that the United States must assume a leadership role in negotiating an international agreement setting legally binding targets to achieve substantial reductions in the emissions of greenhouse gases by early in the next century.

As you know, human activities are substantially increasing the atmospheric concentrations of carbon dioxide, methane, nitrous oxide, and other greenhouse gases. Eleven of the warmest years ever recorded have occurred since 1979 and in the United States the incidence of extreme weather patterns has grown significantly more pronounced. In fact, the Second Assessment Report of the Intergovernmental Panel on Climate Change released in December 1995 determined that already "the balance of evidence suggests a discernible human influence on global climate." Without specific policies to mitigate climate change, the global average surface temperature relative to 1990 is projected to increase by about two to six degrees Fahrenheit and average sea level is projected to rise by about one-half to three feet by the year 2100.

Moreover, the projected changes in climate will result in significant adverse and potentially irreversible impacts on ecological systems and socio-economic sectors, including food supply and water resources, and on human health. In order to stabilize greenhouse gases at levels which do not interfere dangerously with climate, it will eventually require global emissions to be less than 50 percent of current emissions.

The United States and other industrialized nations are responsible for the great majority of the existing increase in concentrations of greenhouse gases. The United States alone emits more carbon dioxide than any other nation and has among the highest per capita carbon dioxide emissions of the major industrialized nations. Accordingly, the United States has the responsibility to take a leadership role in both reducing its own greenhouse gas emissions and in securing the agreement of other nations to reduce their growth in greenhouse gas emissions.

An important step in this direction was taken under the terms of the 1992 Framework Convention on Climate Change signed in Rio de Janeiro by the Bush Administration and ratified by the U.S. Senate. It committed the United States and most other major industrialized nations to the non-binding targets of reducing greenhouse gas emissions to 1990 levels by the year 2000 as well as stabilizing greenhouse gas emissions concentrations in the atmosphere at a level that would prevent

dangerous anthropogenic interference with the climate system. Unfortunately, most nations, including the United States, will not meet these targets.

It is therefore essential that the United States now work to negotiate an international agreement that would commit it and other nations to ambitious and legally binding targets and timetables for achieving significant reductions in the emissions of greenhouse gases if we are to protect the earth's climate. In fact, many of us have previously gone on record in support of the United States reducing its greenhouse gas emissions to a level at least 20 percent below 1990 levels during the next decade -- preferably by the year 2005.

This will be a major challenge but one which offers far more positive opportunities than risks. Through the aggressive employment of well-established as well as emerging energy efficiency and renewable energy technologies, significant reductions in net greenhouse gas emissions can be realized in every sector at little or no cost to the economy. Employing these technologies in this country would have other benefits including (1) a reduction of other pollutants (such as smog and airborne particulates), (2) a reduction in the nations' dependency on foreign oil with its attendant national security risks, and (3) the creation of thousands of jobs in the energy efficiency and renewable energy industries.

Furthermore, the commercialization and deployment of energy efficiency, renewable energy, and other new technologies in the United States will make such technologies affordable to other countries and will simultaneously increase U.S. exports, create new domestic jobs, and reduce emissions in developing countries. A range of available policy options exist that can help ensure the rapid development, diffusion, and transfer of energy efficiency, renewable energy, and other new technologies. These include strengthening automobile and appliance efficiency standards, ending public subsidies for fossil fuel production, providing incentives and mandates to support sustainable energy technologies in utility restructuring legislation, establishing externality cost pricing of energy supplies, utilizing tradable emission permits, and securing adequate federal funding for sustainable energy research, development, and deployment programs as well as programs (e.g., EPA's Green Lights) that encourage voluntary efforts to reduce greenhouse gases.

We believe the United States should take all necessary steps to protect the Earth's climate including the negotiation of an international agreement to substantially reduce U.S. greenhouse emissions during the next decade.

We look forward to working with you on this most important effort.

Sincerely,

Action for a Clean Environment (GA)
AIM Associates, Architects (CA)
Alaska Craftsman Home Program (AK)
All Quality Solar Systems (NJ)
Alley Pond Environmental Center, Inc. (NY)
Alliance to Close Indian Point (NY)
Alternative Environment (CA)
American Association for Fuel Cells (CA)
American Council for an Energy Efficient Economy
American Hydrogen Association (AZ)
American PIE: Public Information on the Environment (CT)

American Solar Energy Society
 American Wind Energy Association
 Ample Technology (WA)
 Anacostia Watershed Society (MD)
 Appalachia-Science in the Public Interest (KY)
 Aqua Sun (NV)
 Aquarius Enterprises (AZ)
 Architectural Energy Corporation (CO)
 Aspen Solar Systems (CO)
 Astro Power, Inc. (DE)
 Atlas Corporation (CA)
 Bay Energy Services, Inc. (MI)
 Better Building Systems, Inc. (CA)
 Biomass Energy Advocates
 Blackhawk Solar Access (CA)
 Bommarito Lighting (WA)
 Bridgewater Solar Works (CT)
 Brookmont Builders, Inc. (MD)
 Building Energy Services (FL)
 Campaign for a Prosperous Georgia (GA)
 Capital Sun Group, Ltd. (MD)
 Carolina Country Builders of Chatham County, Inc. (NC)
 Carpenter Design (OR)
 Cascade International Co. (WA)
 Center for Energy Efficiency and Renewable Technologies (CA)
 Center for Field Research (MA)
 Citizen Action
 Citizen Power (PA)
 Citizens' Monitoring Network of Safe Power for Maine (ME)
 Clean Air Council (PA)
 Clean Fuels Development Coalition
 Clean Water Action (ND)
 CMG International Energy Consultancy (MD)
 Coalition for Jobs and the Environment (VA)
 Community Eco-Design Network (MN)
 Community Office for Resource Efficiency (CO)
 Communications Consortium Media Center
 CONCERN, Inc.
 Connecticut Opposed to Waste (CT)
 Contemporary Designs, Inc. (WI)
 Context Institute (WA)
 Cooperative Citizen's Monitoring Network, Inc. (CT)
 Crystal Systems, Inc. (MA)
 D.A.G., PE (NH)
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 Dankoff Solar Products (NM)
 Daystar Technologies, Inc. (CO)
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 Dynamic Energy Group (CO)
 EarthConnection (OH)
 Earthsake (CA)
 Earthship Global Operations (NM)

Earth Smarts, Inc. (NY)
 Earth Talk (CA)
 Earthwares, Inc. (NC)
 EBC Company (CA)
 Echols Construction, Inc. (MO)
 Eclectic Electric, Inc. (NM)
 ECO-ACTION (FL)
 Ecology Center (CA)
 Eco-Store (FL)
 Ecologic Development Fund (MA)
 Ecological Life Systems Institute, Inc. (CA)
 Ecology Center of Southern California (CA)
 Electric Motor Cars Sales & Service, Inc. (TX)
 El Paso Solar Energy Association (TX)
 Endless Energy Corporation (ME)
 Energy Logistics (NY)
 Energy Outfitters, Ltd. (OR)
 Energy Outreach Center (WA)
 Energy Partners, Inc. (FL)
 Energy Rated Home of Vermont (VT)
 Energyscapes, Inc. (NM)
 Energy Service Company (OR)
 Energy Translations, Inc. (OR)
 Environmental and Energy Study Institute
 Environmental Crisis Center (MD)
 Environmental Defense Fund
 Environmental Design (IA)
 EnviroVideo (NY)
 ETA Engineering, Inc. (AZ)
 Florida League of Conservation Voters (FL)
 Forest Park Environmental Awareness Program (OH)
 Friends of the Earth
 Fuel Cells 2000
 Fuel Cells for Transportation
 Genesis Farm Ecological Learning Center (NJ)
 Geothermal Energy Association
 Geothermal Resources Council (CA)
 GeothermEx, Inc. (CA)
 Global Cooling Action Center (FL)
 Global Energy Concepts, Inc. (WA)
 Global Energy Options (WI)
 Government Purchasing Project
 Grand Solar, Inc. (HI)
 Green PCs of Florida (FL)
 Hanalei Solar (HI)
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 Heathside Builders (ME)
 Hicks Waterstoves & Solar Systems, Inc. (NC)
 Horizon Industries (CA)
 Howlin Marsh Alternative Energy Co. (NY)
 Hurshtown Alternative Power, Inc. (IN)
 Hydrogen & Fuel Cell Letter (NY)

Illinois Solar Energy Association (IL)
 Independent Power Providers (CA)
 Inland Northwest ALT-Trans (WA)
 Institute for Local Self-Reliance (MN)
 Integral Design, Inc. (CA)
 International Bicycle Fund (WA)
 International Center for Technology Assessment
 International District Energy Association
 International Institute for Energy Conservation
 Iowa Renewable Energy Association (IA)
 Keep It Simple Systems (MT)
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 Louisville Resource Conservation Council (KY)
 Maine Solar Energy Association (ME)
 ManaSota-88 (FL)
 Maryland Safe Energy Coalition (MD)
 MD,DC,VA. Solar Energy Industries Association (MD)
 Missouri Coalition for the Environment (MO)
 Morning Sun Press (CA)
 Morse Associates, Inc. (DC)
 Mr. Sun Solar (OR)
 Museum of Science and Art (MI)
 National Biofuels Association
 National Center for Appropriate Technology
 National Home Energy & Resources Organization
 Natural Energy Works, Inc. (OR)
 Natural Resources Defense Council
 New Alternatives Fund, Inc. (NY)
 New England Solar Electric, Inc. (MA)
 New Jersey Environmental Lobby (NJ)
 Nevada Nuclear Waste Task Force (NV)
 North Canyon Solar & Satellite (AZ)
 Northcoast Environmental Center (CA)
 Northwest Conservation Act Coalition (WA)
 NRG Engineering, Inc. (NM)
 NRG Systems, Inc. (VT)
 Nuclear Energy Information Service (IL)
 Nuclear Information and Resource Service
 Offline, Inc. (CA)
 Pacific Energy Co. (CA)
 Paul Macht, Architects (PA)
 Peace Action

Pedal Express (CA)
 Pellet Fuels Institute
 People's Action for Clean Energy (CT)
 Planning & Conservation League (CA)
 Possibilities Tech (CA)
 Public Citizen
 Real Goods Trading Corp. (CA)
 Real Goods, Inc. (OR)
 Renewable Energy Services (MN)
 Renewable Northwest Project (OR)
 Rhode Island Solar Energy Association (RI)
 Rivers Electric Co., Inc. (MA)
 RJD Associates, Inc. (NY)
 Rocky Mountain Institute (CO)
 Rural Economic Development Through Energy Efficiency (CA)
 Safe Energy Communication Council
 Sailshade, Inc. (MA)
 Save Our Earth (CA)
 Save Our World (NY)
 Scholfield Solar Energy Co. (CA)
 Science Applications International Corp. (CO)
 Seawest Energy Corporation (CA)
 Seedcorn's Alternative Energy Program (NY)
 SEMMES & Co. (CA)
 SES, Inc. (NM)
 Shared Living Resource Center (CA)
 Sierra Student Coalition (RI)
 SJG Design, Inc. (NJ)
 SKS (Solar King Supply), Inc. (MD)
 Solar Action for Vermont (VT)
 Solar Age Press (WV)
 Solar City (AZ)
 Solar Cookers International (CA)
 Solar Electric Systems of Kansas City, Inc. (KS)
 Solar Energy Association of Oregon (OR)
 Solar Energy Company, Inc. (CA)
 Solar Energy Industries Association
 Solar Energy Systems (FL)
 Solar World, Inc. (CO)
 Specialized Turbine Services, Inc. (CA)
 Staber Industries, Inc. (OH)
 Starlight Technology, Inc. (IN)
 S.T.E.V.E.N. Foundation (NY)
 SUN DAY Campaign
 Sun King, Inc. (HI)
 Sun Life, Inc. (AR)
 SunLight Works, Inc. (AZ)
 SunTunnel Systems, Inc. (CA)
 Surface Transportation Policy Project
 Sustainable New Wealth Industries
 Synertech Systems Corporation (NY)
 Synergy, Inc. (WY)

SYNERJY (NY)
Tennessee Valley Energy Reform Coalition (TN)
Thermal Conversion Technology (FL)
Thermomax, Inc. (MD)
Thomas Caldwell, Architects (TN)
Tim Olsen Consulting (CO)
Trace Engineering (WA)
Union of Concerned Scientists
UNISUN (CA)
Unitarian Universalist Seventh Principle Project (NC)
Urban Options (MI)
U.S./ECRE - Caribbean Centre
U.S. Public Interest Research Group
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Wind Power Management (CA)
Wint Turbine Company (WA)
Wind Way Technologies, Inc. (IA)
Winter Sun Design (WA)
WinWay A.E.S. Corp. (NY)
Wisconsin's Environmental Decade (WI)
Women's Energy Mattress (CA)
World Energy Efficiency Association
World for Grandchildren (PA)
Yestermorrow Design/Build School (VT)
20/20 Vision National Project

Misc

C

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FAX COVER SHEET

FRIENDS OF THE EARTH
1025 VERMONT AVENUE, NW
THIRD FLOOR
WASHINGTON, DC 20005
(202) 783-7400 (202) 783-0444 FAX

IT'S A FAX FROM THE PRESIDENT !

DATE:

9/11/97

PAGES INCLUDING COVER:

3

TO:

Todd Stern

FR:

BRENT BLACKWELDER

RECIPIENT'S PHONE:

RECIPIENT'S FAX:

456-2215

contact Sherri Owens on ext. 222 for transmission errors.

MESSAGE:

eco

TOXIC EDITION
**FOCUS ON METHYL
BROMIDE**

HANDLE WITH CARE

published by non-governmental environment groups at major international conferences since Stockholm in 1972

TODAY'S TALLY SHEET: METHYL BROMIDE

ECO is closely monitoring country positions on the methyl bromide (MB) phase-out and other pressing issues, to ensure that citizens back home know whether their governments are doing what it takes to protect human health and the environment.

Here's a tally of where countries stand on MB. ECO notes that performance to date has been far from stellar and is looking for real results on this issue over the next week.

Stayed tuned for a tally on HCFC positions in the next ECO.

INDUSTRIALIZED COUNTRIES

GOOD (Phase-out as of 2001):

Austria
Canada
Denmark
Finland
Germany
Iceland
Netherlands
Norway
Sweden
Switzerland

USA (but will they move beyond "urging"?)

BAD (Phase-out as of 2005):

France
Belgium
Greece
Japan
Israel
Italy
New Zealand
Portugal
Spain
United Kingdom

TERRIBLE (No acceleration of phase-out):

South Africa
Australia

DEVELOPING COUNTRIES

GOOD (Agree to set a phase-out schedule at this meeting):

Argentina
Brazil
Colombia
Chile
Uruguay
Venezuela
Costa Rica

TERRIBLE (Oppose setting a phase-out date at this meeting):

China
Cuba
Egypt
Jordan
India
Indonesia
Mexico
Peru
Philippines
Sri Lanka



ABSOLUTELY THE WORST

Kenya

**THE COSTS AND BENEFITS OF CUTTING U.S. CARBON
EMISSIONS:**

**A CRITICAL REVIEW OF THE ECONOMIC ARGUMENTS OF
THE FOSSIL FUEL LOBBY**

by

Florentin Krause, Ph.D.

May 1997

International Project for Sustainable Energy Paths (IPSEP), 7627 Leviston Ave
El Cerrito, CA 94530
Tel. 510 525 7530 Fax 510 525 4446
w.w.w.ipsep.org

SHORT SUMMARY

The current economic debate over climate policy is being dominated by fossil energy producers and some manufacturing industries that oppose effective international agreements or national action. Major lobbying groups representing these status quo stakeholders, such as the Global Climate Coalition (GCC) and other organizations warn of dire economic consequences should governments adopt policies to reduce carbon emissions. They predict losses of jobs and income not only for their own industries, but also for the U.S. economy as a whole, consisting of a broad decline of U.S. competitiveness, reduced living standards, and the migration of industries to developing countries.

The stakeholders' economic cassandra calls have recently been challenged in a statement signed by 2500 U.S. economists that includes the following passage:

"Sound economic analysis shows that there are policy options that would slow global warming without harming American living standards, and these measures may in fact improve U.S. productivity in the longer run."

The following report explains why so many economists and for that matter, technologists and other energy policy experts, beg to differ on the notion that climate policies would hurt or burden the economy. The report critically examines the economic modeling studies on which stakeholders base their media campaigns and congressional testimony. This review also provides and illustrates a generic conceptual framework for evaluating studies on the costs of mitigating climate change that should be useful for policy makers, business representatives, and journalists in screening further studies on this topic.

First conclusion:

The claims made by the status quo stakeholders misrepresent the results of mitigation cost research performed to date.

These claims are based on unrealistic climate policies constructed from a limited subset of policy options that are known to produce unfavorable economic outcomes. Specifically, the studies cited by status quo stakeholders systematically omit all of the five major policy options for increasing economic output and welfare while reducing emissions (so-called double dividends or no-regrets options). These five no-regrets options are:

- 1) shifting taxes from investments and labor to energy
- 2) reforming subsidies to the energy and transportation sectors
- 3) incorporating environmental impacts into energy prices
- 4) removing market failures and diffusion barriers in energy supply and energy efficiency markets
- 5) accelerating technological innovation

In addition, the stakeholder analyses fail to consider and model well-known policy options for insulating energy-intensive manufacturing industries from competitiveness problems, such as border tax adjustments or tax credits for energy efficiency investments.

Second conclusion:

The studies cited by the status quo stakeholders fail to employ analytically sound, state-of-the-art modeling procedures, with the effect of a strong bias toward higher cost estimates and exaggerated effects on energy prices.

Specifically, the modeling systems and input data used in the stakeholder-endorsed studies lack key components needed to account for real world market failures, existing technology options, and technical change induced by climate policies themselves. These model and data-set limitations have the effect of defining away no-regrets options based on R&D and market transformation policies (items 4 and 5 in the above list).

The Global Climate Coalition adds a further bias by deriving its cost estimates for the U.S. from just one economic model. This proprietary model is known to yield pessimistic cost estimates when used for policy analyses that extend over longer time horizons. Predictions derived with this model for the cost of stabilizing emissions in 2010 or for cutting them by 20 percent are three to five times larger than the average prediction obtained in a test of fourteen publicly available models. Similarly, the carbon tax required to stabilize U.S. emissions in this model is up to a factor of ten higher than those obtained in other models.

This bias from model choice comes on top of the major bias from omitting all no-regrets policy options. These biases mean that the losses in economic output cited by the Global Climate Coalition fall outside the range of credible estimates.

Third conclusion:

Modeling studies that examine climate policies based on no-regrets options consistently arrive at minimal, neutral, or positive economic impacts, in stark contrast to the claims of status quo stakeholders.

1) When including tax shifts that cut investment-inhibiting taxes on capital and labor, all available U.S. modeling studies show that current European negotiating proposals (for stabilizing and then cutting emissions by 10 percent over 15-20 years) can be realized by the U.S. while largely, fully or more than fully offsetting predicted losses in output and jobs. For such tax shifts, even the pessimistic model cited by the GCC predicts positive cumulative impacts — a feature of the model that the GCC disavows.

2) Available studies show that direct U.S. subsidies for fossil energy production amount to \$10-30 billion per year. Indirect payments subsidizing oil-dependent road transport add another \$40-140 billion, for a total of \$50-170 billion. These subsidies are equivalent to a reward for carbon emissions of \$35-\$120 when averaged across emissions in the U.S.

Available modeling studies show that just eliminating the direct subsidies for fossil-based energy production — much of it outright corporate welfare — would go a long way toward eliminating long-term growth in U.S. carbon emissions. If the freed tax revenues are used for favorable tax shifts, such subsidy removal will cause no significant losses in economic output and may actually lead to a small gain.

3) U.S. fossil energy consumption continues to cause environmental damages other than climate change that are not reflected in energy prices. These damages are estimated to be \$10-200 billion per year. For carbon-intensive coal, the pollution subsidy is equivalent to \$8-217 per ton of carbon emitted from coal burning.

Again, available modeling studies indicate that if these damages were incorporated into energy prices through an ad valorem energy tax, U.S. carbon emissions over the next 20-30 years would stabilize and then decline, while the negative effects of higher energy prices can again be largely, fully, or more than fully offset by favorable tax shifts. When the benefits of avoided environmental damages are added, total welfare increases by as much as one percent or more. With just a welfare-neutral outcome, U.S. carbon emissions could be cut by up to 30 percent below 1990 base year levels.

4) Much of available technology for increasing energy productivity is not being taken up by U.S. consumers and firms because energy efficiency markets work significantly less well than textbook economics might suggest. Innovative and successful approaches for correcting these problems use cost/benefit tested performance standards linked to market-based incentive programs that ensure the economic efficiency of market corrections. Regulatory measures are updated on the basis of new technologies brought forth and market-tested in incentive programs. Evaluation studies find that these and other programs are already saving U.S. consumers and firms several billion dollars per year.

Available studies show that expanded application of these policies could cut the nation's energy bills by growing amounts over the next 20-30 years, with an ultimate savings potential of more than \$100 billion per year. At the same time, these productivity gains could cut emissions far below internationally proposed targets even as the economy continues to grow — by as much as a third below the 1990 base year.

5) The modeling studies cited by status quo stakeholders commonly indicate that it would be economically advantageous to postpone emission reduction measures until lower-cost technology alternatives are available. This finding flows mainly from the assumption that the rate of technological innovation is a given and cannot be cost-effectively changed through policy action.

This assumption not only overlooks the already mentioned backlog of unrealized energy productivity improvements that can reduce energy bills immediately if implemented starting now. It also ignores that the rate of technological progress is itself influenced by climate policy: the adoption of near-term reduction goals will induce accelerated technological and organizational innovation.

In addition, U.S. experience and engineering-economic studies suggest that increased spending for government R&D and commercialization programs can accelerate cost reductions and could significantly advance the date by which new low-carbon supply technologies become cheaper than fossil-based energy carriers on a pretax basis. When cheaper energy technologies are brought into the market sooner, the larger cumulative savings in future years can easily pay for a severalfold increase in R&D spending on energy efficiency and renewable energy options.

Shifts of R&D resources towards these and other modular technologies would be economically efficient. Such technologies have been shown to offer the largest returns per R&D dollar because of short and inexpensive construction, testing, and improvement cycles and steep cost reductions in mass manufacturing, implying significant no-regrets emission reductions.

6) Strategic combinations of the above energy price, tax shift, and technology measures could deliver even larger cuts in U.S. carbon emissions while producing assured and significant economic gains. No modeling study to date has evaluated such an integrated approach for the U.S. Cautiously estimated, the above studies on no-regrets options suggest in combination that U.S. emissions could be cut by at least 20-30 percent below

1990 levels over 20 years, at a (discounted) cumulative gain in economic output of 0.5 percent and a gain in economic welfare (which includes the benefit of avoided non-climatic environmental damages) of about 1 percent. Expressed in terms of the double dividends that would be obtained in the final year of the policy period, economic output would grow by 0.5-1 percent (\$50-100 billion per year), while welfare would increase by roughly 1-2 percent (\$100-200 billion per year).

Fourth conclusion:

The stakeholders' predictions of hundreds of thousands of lost jobs from slower growth in the U.S. are the result of flawed policy assumptions and biased modeling calculations. More sensible strategies would enhance job creation.

The stakeholder predictions are driven by a combination of higher energy prices and lower income. The price effect is significant in only a very few sectors including the energy sector itself, certain heavy industries, and in some energy-intensive transportation services. These sectors represent less than 5 percent of U.S. jobs. Most job losses are based on the income effect arising from presumed losses in economic growth, which affects the economy broadly.

1) Under a well-designed no-regrets strategy, neutral to positive income effects and shifts away from capital-intensive energy production result in employment gains in most of the economy, while energy taxes and thus price effects are moderated. Because sectors that are net winners far outweigh the few sectors that suffer large price effects, the national result is net employment gains. Extrapolating from the stakeholder studies, U.S. job gains could be as high as several hundred thousand.

2) Adjustment costs borne by miners and coal-mining regions could easily be paid with a small fraction of the economic gains of a no-regrets strategy. The estimated national economic benefits of a well-designed no-regrets strategy (\$50-200 billion per year) are 10 to 40 times larger than the entire payroll of the U.S. coal mining industry.

Fifth conclusion:

Predictions by status quo stakeholders of massive industrial relocations to developing countries stem from modeling biases, omission of no-regrets options, and neglect of proven policy instruments for insulating energy-intensive manufacturing industries from competitiveness problems.

The business and job flight predicted by the Global Climate Coalition arises from the claim that high carbon taxes (roughly \$200 per ton of carbon) would be needed to stabilize emissions, and much larger taxes to bring about emission reductions.

1) The need for high carbon taxes is an artifact of the strongly pessimistic bias in the model used by the GCC. Just moving to a more representative model would reduce required carbon taxes to about \$50-100 per ton. The bias of model choice is compounded by the omission of no-regrets policy options that would reduce impacts on businesses: investment and/or payroll tax relief through tax shifts, incentives and credits for energy efficiency investments, and productivity gains from accelerated technological innovation.

2) As one of its benefits, an integrated no-regrets strategy has the effect of significantly lowering the level of carbon taxes required to bring about emission reduction goals (to as little as \$20-50 per ton). In effect, market transformation programs and R&D for low-carbon investments raise the average energy price elasticity in the economy because the ability of energy users to respond to higher prices with energy productivity measures is enhanced.

3) With a carbon tax of \$50 per ton plus tax shifts, trade-exposed industries seeing a more than 2 percent rise in costs represent a mere 2 percent of total U.S. jobs. All other jobs in the U.S. economy use so little energy as to remain substantially unaffected, or their products cannot be displaced by imports (e.g., energy production or transport services).

4) Though the number of energy-intensive jobs that could be lost to foreign competition is small in the bigger scheme of things, these manufacturing jobs are worth keeping. To eliminate carbon-tax related trade threats to these industries, border tax adjustments, energy efficiency tax credits, and other proven instruments can be used. These options are not acknowledged in the stakeholders' claims.

Sixth conclusion:

The method proposed by status quo stakeholders for protecting a small minority of potential economic losers — i.e., postponing climate action — would unnecessarily tie the U.S. to an unsustainable energy past while wasting opportunities for a timely shift toward a sustainable economy.

Studies suggest that the competitiveness of the U.S. in the 21st century will depend on its technological efforts, not on cheap natural resources. Low-carbon technology markets in the area of energy efficiency and renewable energy are highly know-how intensive and offer opportunities for strong export growth. These technologies already constitute a market of more than \$110 billion in annual sales worldwide, with about one fifth of this market in the U.S. Opportunities for U.S. companies to excel in this rapidly growing field are strong on account of the country's technology innovation infrastructure.

Seventh conclusion:

Contrary to the claims by status quo stakeholders, decisive and early climate action by the U.S. (and other industrialized countries) will have a multiplier effect and moderate emissions in developing countries.

Strong no-regrets action will not only lead to money-saving cuts in U.S. carbon emissions, but will also moderate emissions from fossil energy use in developing countries. The accelerated innovation induced by early U.S. action, and the earlier availability of cheap low-carbon supply alternatives will spill over into the developing countries through increased trade and associated technology transfers — a dynamic that is not captured in the international trade models cited by stakeholders.

These trade models also fail to take into account policy options for enhancing this spill-over effect by redirecting bilateral and multilateral lending programs. Not only would developing countries be able to shift their large and growing infrastructure investments to low-carbon technologies sooner; they would also benefit from earlier declines in their own costs of energy services. Indeed, once the U.S. begins to move decisively toward a low-

carbon energy system, other countries including developing countries will have difficulty remaining competitive without themselves adopting the same energy productivity measures.

Figure 1: Comparison of costs of cutting U.S. carbon emissions as calculated with different top-down models (20-year time horizon, lump-sum revenue recycling)

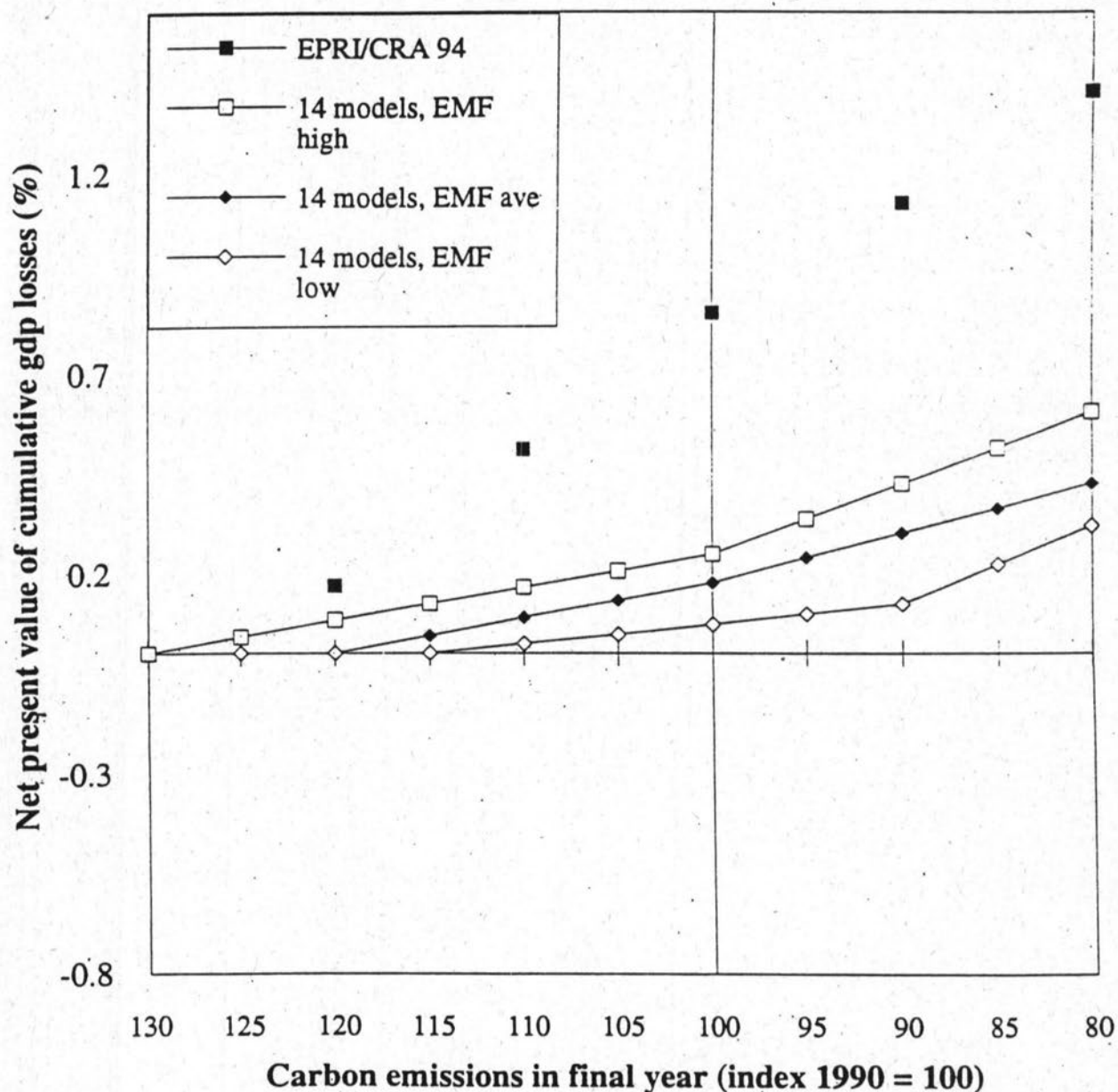


Figure 2: Cost of cutting U.S. carbon emissions when combined with favorable tax shifts (15-20 year time horizon)

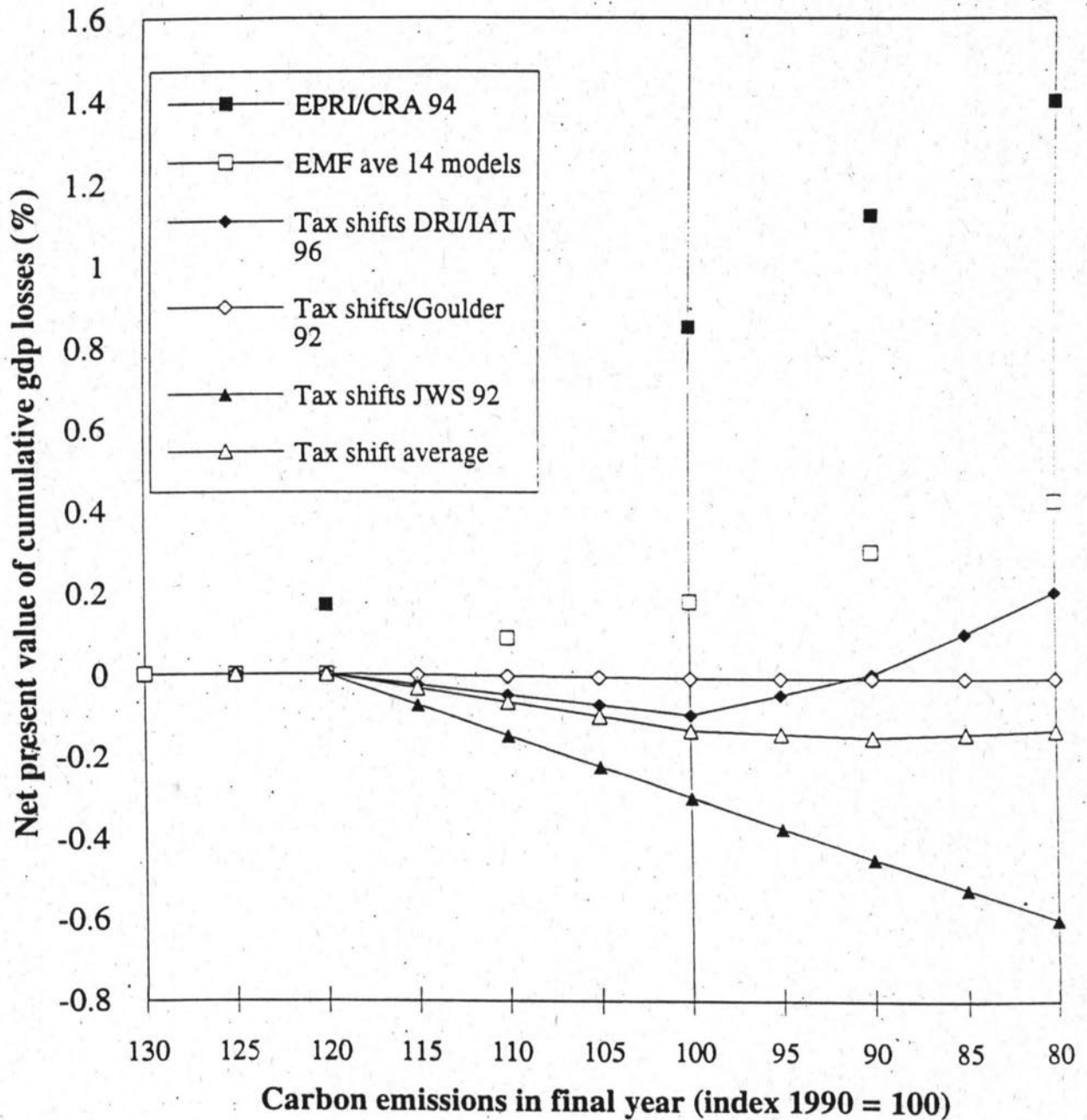


Figure 3: Costs of cutting U.S. carbon emissions based on tax shift plus environmental externalities (20-30 year time horizon)

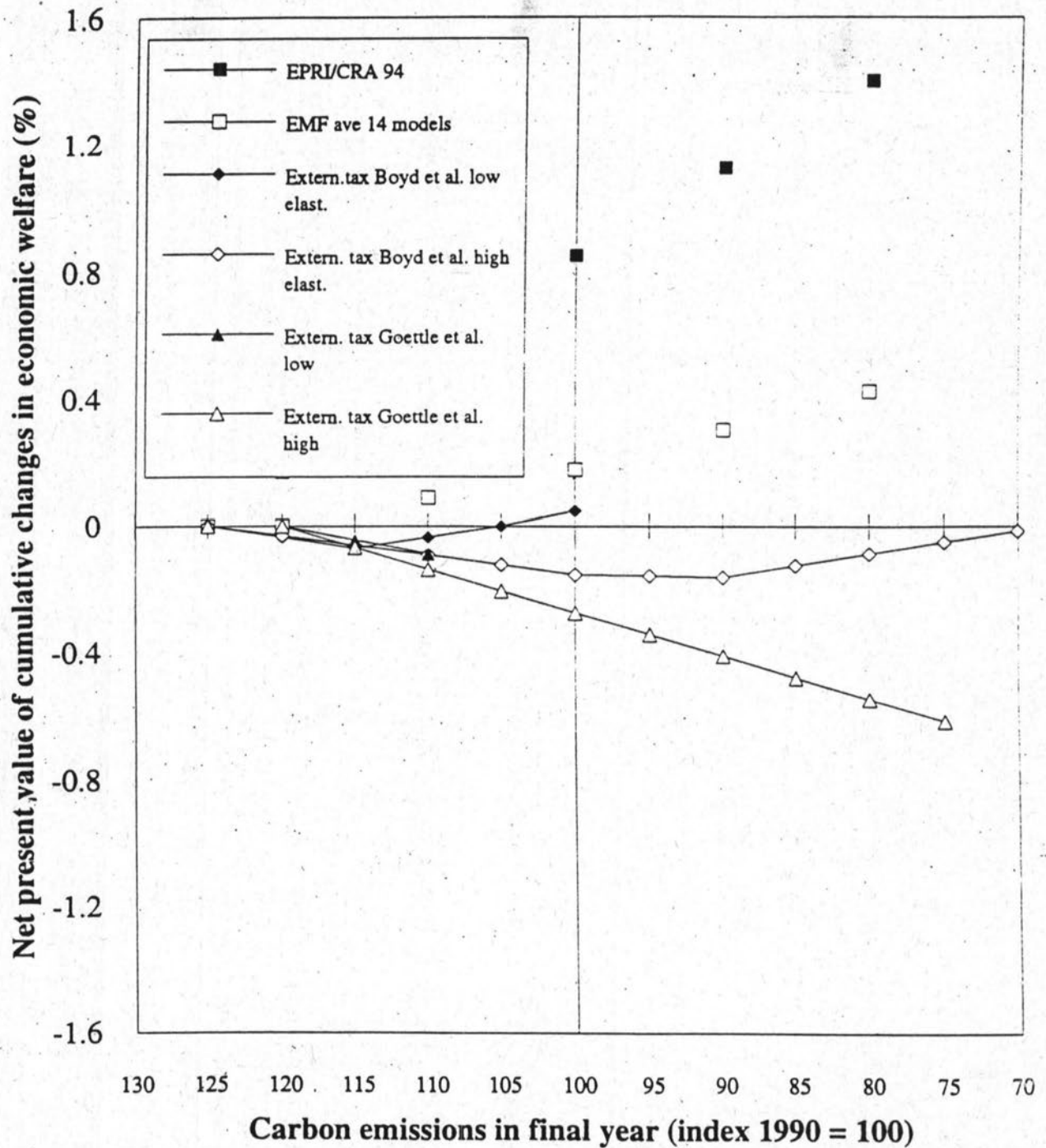


Figure 4: Costs of cutting U.S. carbon emissions from bottom-up studies (20-30 year time horizon)

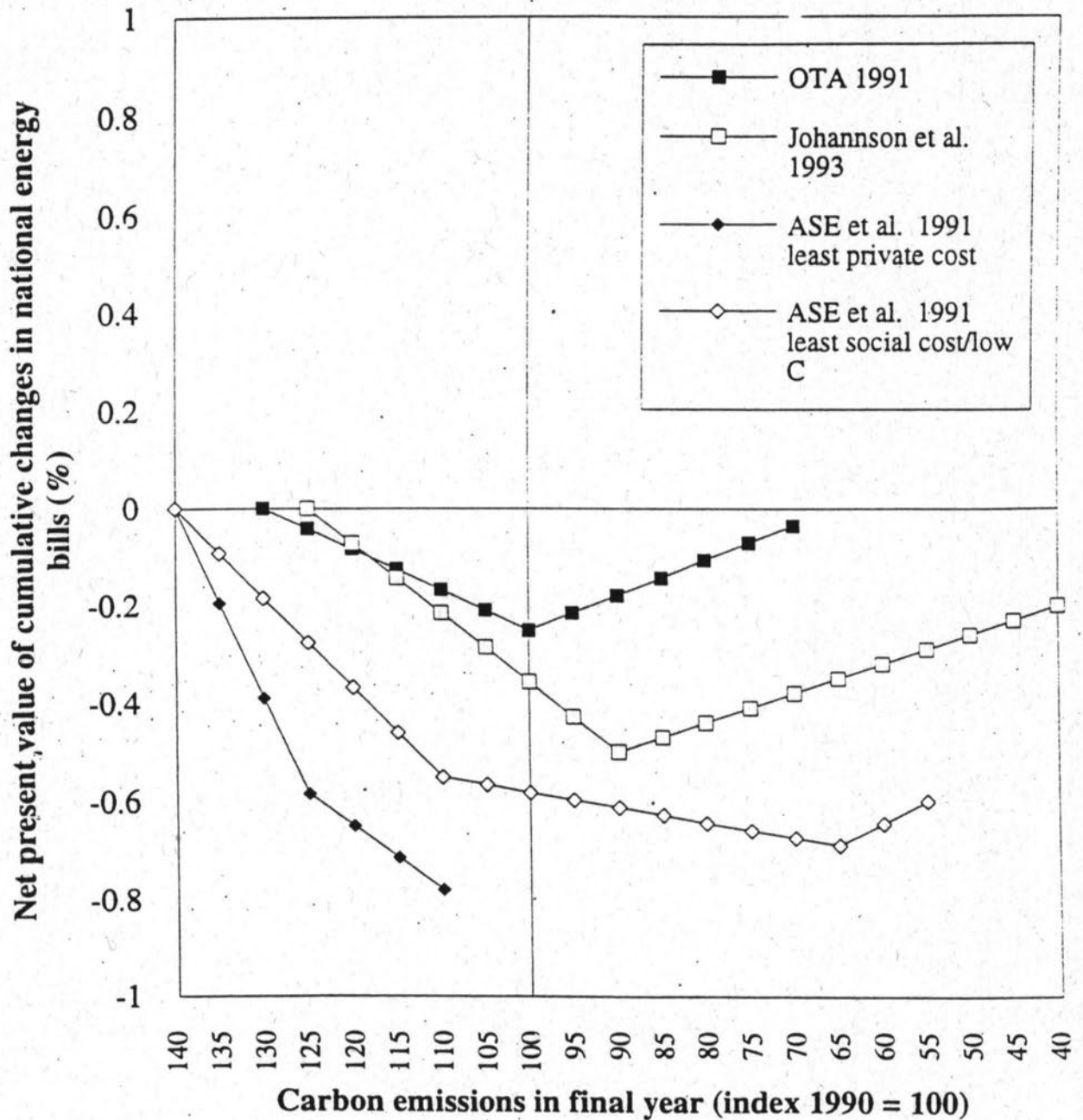


Figure 5A: Combined effect of applying no-regrets policy options on cost of cutting U.S. carbon emissions (time horizon 20-30 years)

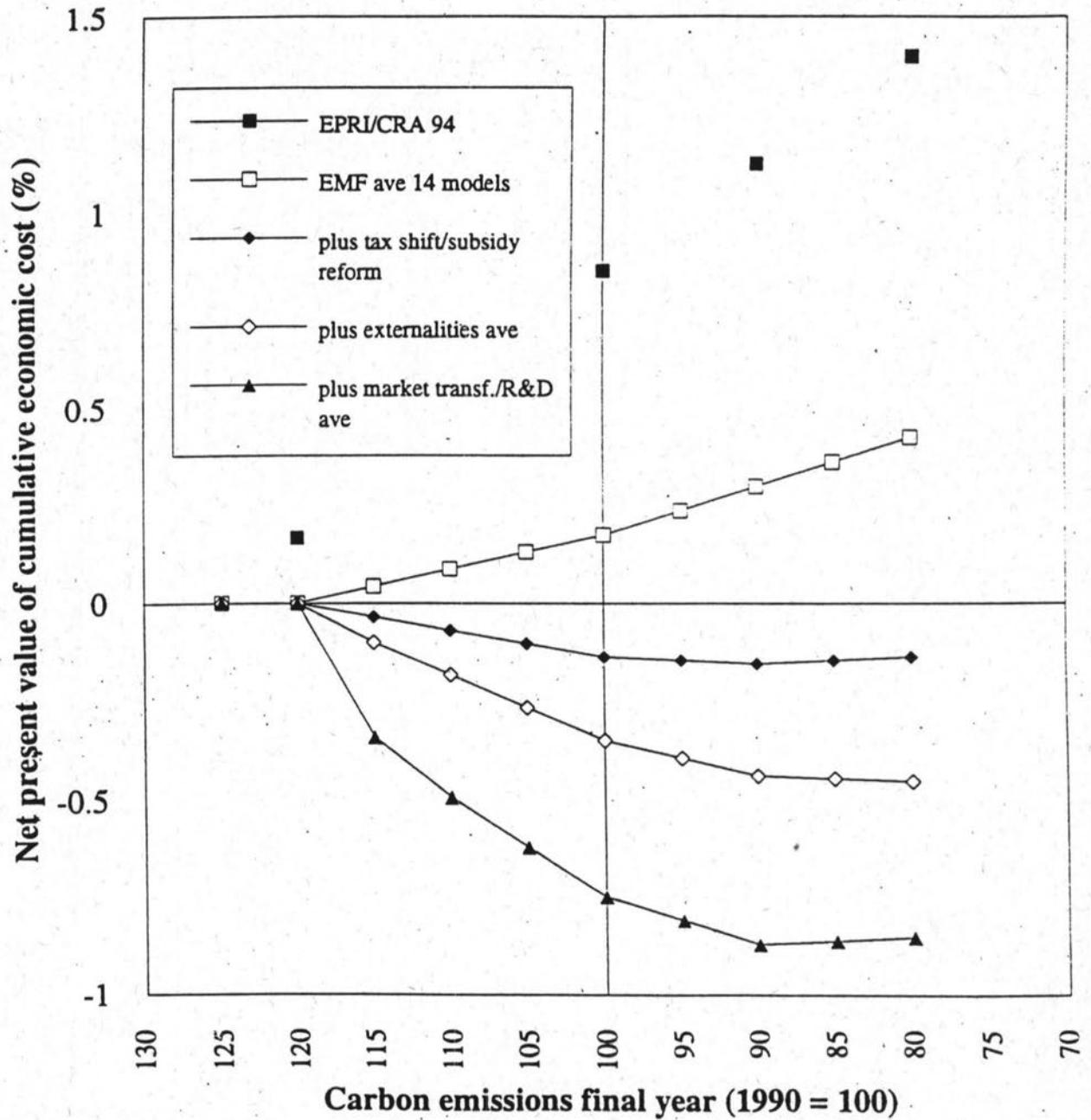


Figure 5B: Cost of reducing U.S. carbon emissions over 20 years as a function of the reduction target, the modeling system, and the range of no-regrets options

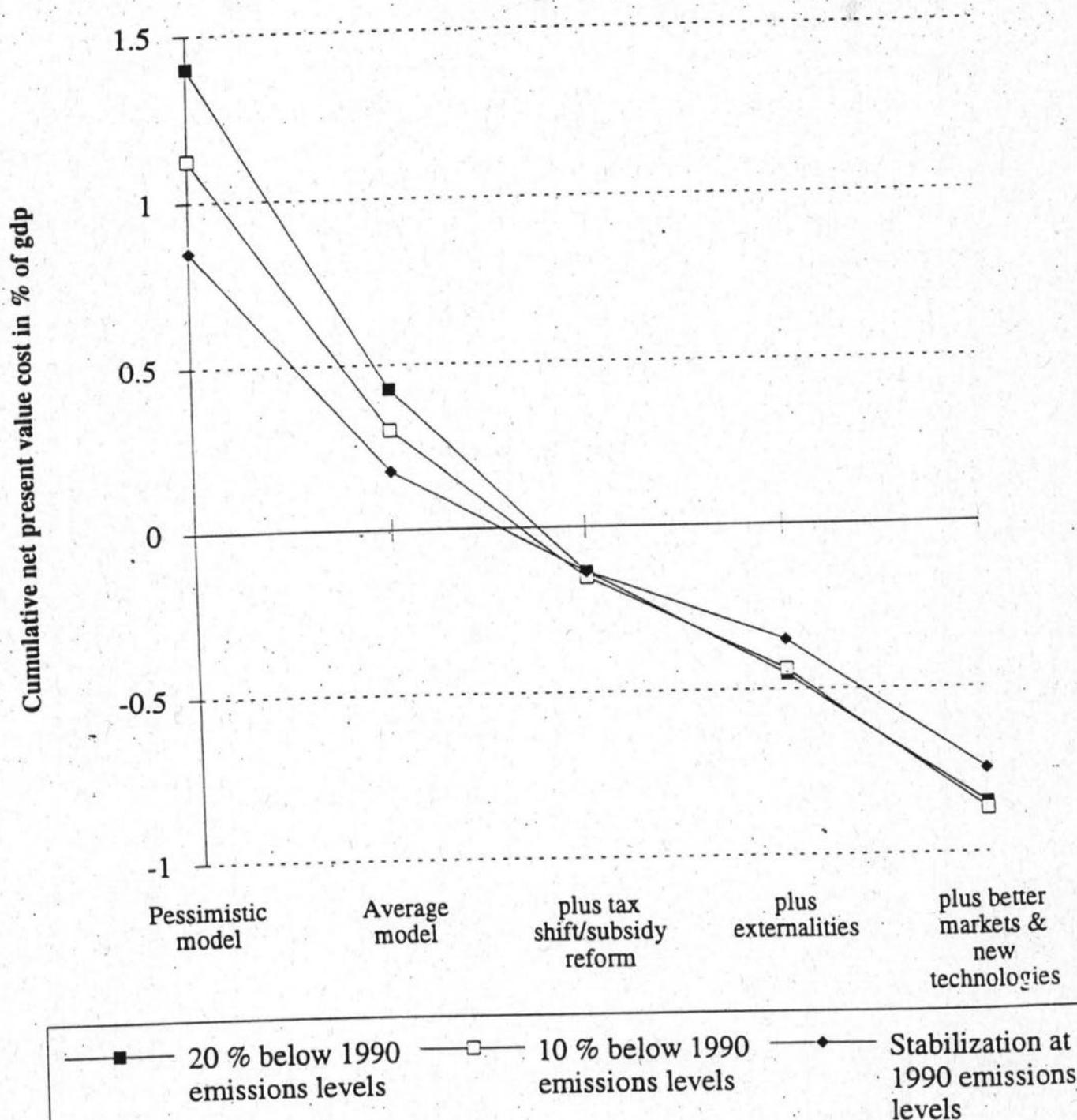


Figure 6: Distribution of U.S. jobs in 1995 (total = 132 million)

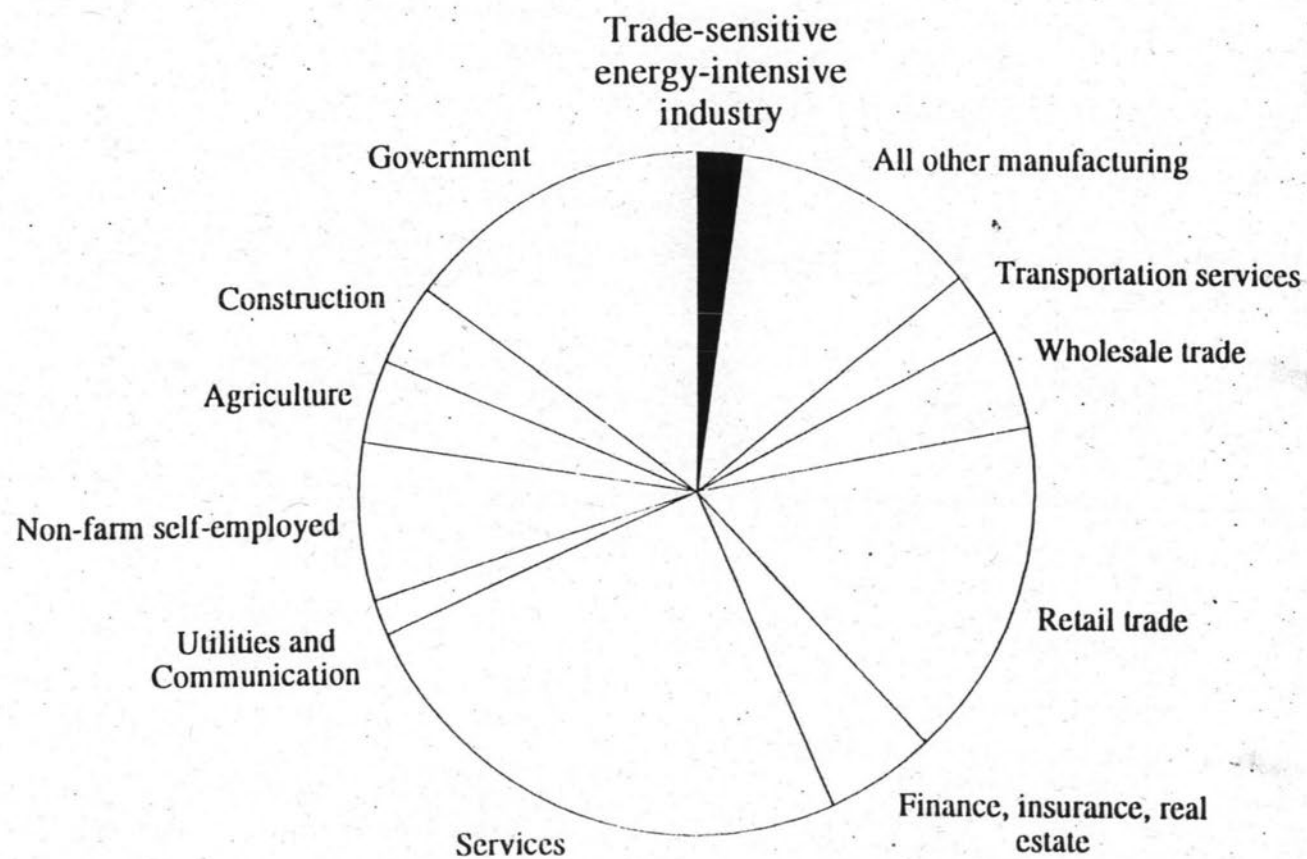


Table 1A: Economic impacts of reducing U.S. carbon emissions WITHOUT use of no-regrets policy options

Authors/ Institutions/	Model/ Input assumptions	Change in C-emissions relative to 1990 (index)						Change in gdp or welfare rel. to ref. case (%)						Cumul. NPV (%)	
		2005	2010	2015	2020	2025	2030	2005	2010	2015	2020	2025	2030	1990-2010/15	1990-2020/25
BASELINE PROJECTIONS															
EMF-12															
	high	123	130		145		170								
	ave	118	123		133		150								
	low	110	117		117										
	Goulder	110	117		135										
LUMP SUM SCENARIOS															
A. Stabilization															
1) EPRI/CRA (1994)	DRI Macro version 1		100					-2.4						-0.9	
2) EMF (1993)															
	high		100					-0.7						-0.2	
	low		100					-0.2						-0.1	
	ave		100					-0.5						-0.2	
Jorgensen/Wilcoxon	DGEM CGE		100					-0.6		-0.8				-0.2	-0.23
Goulder	Goulder CGE		100					-0.3						-0.1	
B. 20% reduction															
1) EPRI/CRA (1994)	DRI Macro version 1		80					-4.3						-1.5	
2) EMF (1993)															
	high		80					-1.7						-0.6	
	low		80					-0.9						-0.3	
	ave		80					-1.2						-0.4	
Jorgensen/Wilcoxon	DGEM CGE		80					-1.7		-1.5				-0.6	-0.44
Goulder	Goulder CGE		80					-1.2						-0.4	

(1) Cumulative net present value of economic impacts is based on a 3 percent real discount rate.

Table 1B: Economic impacts of reducing U.S. carbon emissions WITH use of no-regrets policy options

Authors/ Institutions/	Model/ Input assumptions	Change in C-emissions relative to 1990 (index)						Change in gdp or welfare rel. to ref. case (%)						Cumulative, NPV (%)	
		2005	2010	2015	2020	2025	2030	2005	2010	2015	2020	2025	2030	1990-2010/15	1990-2020/25
TAX SHIFTS															
A. Permit auction revenues															
1) IAT June 1996	DRI Macro version 2														
European Union proposal	40/60 cons/business		100					-0.3	0.3	0.5				0.1	
UK proposal	40/60 cons/business		90					-0.5	0.25	0.6				0	
German proposal	40/60 cons/business	90	80					-0.6	-1	1				-0.2	
AOSIS proposal	40/60 cons/business	80	80					-2.5	-1.3	-0.8				-1.1	
B. Phased-in modest C tax															
1) Shackleton et al. 1992															
w. capital tax cut	JWS CGE	91	91		80			0.7	0.8	0.9	1.0			0.6	
2) Shackleton et al. 1992															
w. investment tax credit	Goulder CGE	85	80		84			0.05	0.05	0.1	0.15			0.01	
plus SUBSIDY REFORM															
A. Partial subsidy removal															
1) Jorgensen et al. 1995	DGEM/JWS CGE														
Minor subsidy cut plus capital tax cut			111		111			0.25	0.25	0.25	0.22	0.21	0.2	30.75	
plus EXTERNALITY PRICING															
A. Pollutant-based energy tax															
1) Goettle et al. 1995	DGEM/JWS CGE														
High externality estimate	cut in capital taxes				75						2.12				260.76
Low externality estimate	cut in capital taxes				108						0.19				36.90
2) Boyd, Krutilla, Viscusi 1995	Static CGE														
a) Optimal net benefits	low subst. elasticity				117						0.2			0.07	
	high subst. elasticity				94						0.54			0.19	
b) Zero net cost point	low subst. elasticity				106						zero			0	
	high subst. elasticity				68						zero			0	
TECHNICAL CHANGE															
A. Market transformation															
1) ASE et al. 1991															
least private cost			111				118							0.78	
least social cost			64				57							0.69	
low carbon/least cost			55				44							0.6	
3) OTA 1991				77						0.2				0.00	
4) Johannson et al. 1993						39						>0			>0

(1) Cumulative net present value of economic impacts is based on a 3 percent real discount rate.

SUSTAINABLE ENERGY COALITION

315 Circle Avenue, #2, Takoma Park, MD 20912-4836 (301-270-2258; fax: 301-891-2866)

July 1, 1997

William Jefferson Clinton
President of the United States
The White House
1600 Pennsylvania Avenue, N.W.
Washington, D.C. 20500



Dear President Clinton:

We, the undersigned business, environmental, consumer, and energy policy organizations, are writing to express our view that the United States must assume a leadership role in negotiating an international agreement setting legally binding targets to achieve substantial reductions in the emissions of greenhouse gases by early in the next century.

As you know, human activities are substantially increasing the atmospheric concentrations of carbon dioxide, methane, nitrous oxide, and other greenhouse gases. Eleven of the warmest years ever recorded have occurred since 1979 and in the United States the incidence of extreme weather patterns has grown significantly more pronounced. In fact, the Second Assessment Report of the Intergovernmental Panel on Climate Change released in December 1995 determined that already "the balance of evidence suggests a discernible human influence on global climate." Without specific policies to mitigate climate change, the global average surface temperature relative to 1990 is projected to increase by about two to six degrees Fahrenheit and average sea level is projected to rise by about one-half to three feet by the year 2100.

Moreover, the projected changes in climate will result in significant adverse and potentially irreversible impacts on ecological systems and socio-economic sectors, including food supply and water resources, and on human health. In order to stabilize greenhouse gases at levels which do not interfere dangerously with climate, it will eventually require global emissions to be less than 50 percent of current emissions.

The United States and other industrialized nations are responsible for the great majority of the existing increase in concentrations of greenhouse gases. The United States alone emits more carbon dioxide than any other nation and has among the highest per capita carbon dioxide emissions of the major industrialized nations. Accordingly, the United States has the responsibility to take a leadership role in both reducing its own greenhouse gas emissions and in securing the agreement of other nations to reduce their growth in greenhouse gas emissions.

An important step in this direction was taken under the terms of the 1992 Framework Convention on Climate Change signed in Rio de Janeiro by the Bush Administration and ratified by the U.S. Senate. It committed the United States and most other major industrialized nations to the non-binding target s of reducing greenhouse gas emissions to 1990 levels by the year 2000 as well as stabilizing greenhouse gas emissions concentrations in the atmosphere at a level that would prevent

dangerous anthropogenic interference with the climate system. Unfortunately, most nations, including the United States, will not meet these targets.

It is therefore essential that the United States now work to negotiate an international agreement that would commit it and other nations to ambitious and legally binding targets and timetables for achieving significant reductions in the emissions of greenhouse gases if we are to protect the earth's climate. In fact, many of us have previously gone on record in support of the United States reducing its greenhouse gas emissions to a level at least 20 percent below 1990 levels during the next decade -- preferably by the year 2005.

This will be a major challenge but one which offers far more positive opportunities than risks. Through the aggressive employment of well-established as well as emerging energy efficiency and renewable energy technologies, significant reductions in net greenhouse gas emissions can be realized in every sector at little or no cost to the economy. Employing these technologies in this country would have other benefits including (1) a reduction of other pollutants (such as smog and airborne particulates), (2) a reduction in the nations' dependency on foreign oil with its attendant national security risks, and (3) the creation of thousands of jobs in the energy efficiency and renewable energy industries.

Furthermore, the commercialization and deployment of energy efficiency, renewable energy, and other new technologies in the United States will make such technologies affordable to other countries and will simultaneously increase U.S. exports, create new domestic jobs, and reduce emissions in developing countries. A range of available policy options exist that can help ensure the rapid development, diffusion, and transfer of energy efficiency, renewable energy, and other new technologies. These include strengthening automobile and appliance efficiency standards, ending public subsidies for fossil fuel production, providing incentives and mandates to support sustainable energy technologies in utility restructuring legislation, establishing externality cost pricing of energy supplies, utilizing tradable emission permits and securing adequate federal funding for sustainable energy research, development, and deployment programs as well as programs (e.g., EPA's Green Lights) that encourage voluntary efforts to reduce greenhouse gases.

We believe the United States should take all necessary steps to protect the Earth's climate including the negotiation of an international agreement to substantially reduce U.S. greenhouse emissions during the next decade.

We look forward to working with you on this most important effort.

Sincerely,

Action for a Clean Environment (GA)
 Alaska Craftsman Home Program (AK)
 Alley Pond Environmental Center, Inc. (NY)
 Alliance to Close Indian Point (IL)
 American Association for Fuel Cells (CA)
 American Council for an Energy Efficiency Economy
 American Hydrogen Association (AZ)
 American PIE: Public Information on the Environment (CT)
 American Solar Energy Society
 American Wind Energy Association
 Anacostia Watershed Society (MD)
 Appalachia-Science in the Public Interest (KY)
 Biomass Energy Advocates
 Building Energy Services (FL)
 Campaign for a Prosperous Georgia (GA)
 Capital Sun Group, Ltd. (MD)
 Citizen Action
 Citizen Power (PA)
 Clean Fuels Development Coalition
 Clean Water Action (ND)
 CMG International Energy Consultancy (MD)
 Coalition for Jobs and the Environment (VA)
 Community Office for Resource Efficiency (CO)
 Communications Consortium Media Center
 CONCERN, Inc.
 Connecticut Opposed to Waste (CT)
 Context Institute (WA)
 Earth Talk (CA)
 ECO-ACTION (FL)
 Eco-Store (FL)
 Ecologic Development Fund (MA)
 Ecological Life Systems Institute, Inc. (CA)
 Ecology Center of Southern California (CA)
 El Paso Solar Energy Association (TX)
 Energy Outreach Center (WA)
 Environmental and Energy Study Institute
 Environmental Crisis Center (MD)
 Environmental Defense Fund
 EnviroVideo (NY)
 Florida League of Conservation Voters (FL)
 Forest Park Environmental Awareness Program (OH)
 Friends of the Earth
 Fuel Cells 2000
 Fuel Cells for Transportation
 Geothermal Energy Association
 Geothermal Resources Council (CA)
 Global Cooling Action Center (FL)
 Global Energy Options (WI)

Government Purchasing Project
Illinois Solar Energy Association (IL)
Independent Power Providers (CA)
Inland Northwest ALT-Trans (WA)
Institute for Local Self-Reliance (MN)
International Bicycle Fund (WA)
International Center for Technology Assessment
International District Energy Association
International Institute for Energy Conservation
Iowa Renewable Energy Association (IA)
Komanoff Energy Associates (NY)
Legal Environmental Assistance Foundation (FL)
Light Party (CA)
Lighting Design Lab (WA)
Louisiana Wildlife Federation (LA)
ManaSota-88 (FL)
Maryland Safe Energy Coalition (MD)
MD.DC.VA. Solar Energy Industries Association (MD)
Mr. Sun Solar (OR)
National Biofuels Association
National Center for Appropriate Technology
National Home Energy & Resources Organization
Natural Resources Defense Council
Nevada Nuclear Waste Task Force (NV)
Northcoast Environmental Center (CA)
Nuclear Energy Information Service (IL)
Nuclear Information and Resource Service
Peace Action
Pedal Express (CA)
Pellet Fuels Institute
People's Action for Clean Energy (CT)
Planning & Conservation League (CA)
Public Citizen
Renewable Northwest Project (OR)
Rhode Island Solar Energy Association (RI)
Rocky Mountain Institute (CO)
Rural Economic Development Through Energy Efficiency (CA)
Safe Energy Communication Council
Save Our Earth (CA)
Save Our World (NY)
Seedcorn's Alternative Energy Program (NY)
SJG Design, Inc. (NJ)
Sierra Student Coalition (RI)
SKS (Solar King Supply), Inc. (MD)
Solar Cookers International (CA)
Solar Electric Systems of Kansas City, Inc. (KS)
Solar Energy Association of Oregon (OR)
Solar Energy Industries Association
S.T.E.V.E.N. Foundation (NY)
SUN DAY Campaign

Surface Transportation Policy Project
Sustainable New Wealth Industries
SYNERJY (NY)
Trace Engineering (WA)
Union of Concerned Scientists
Unitarian Universalist Seventh Principle Project (NC)
Urban Options (MI)
U.S./ECRE - Caribbean Centre
U.S. Public Interest Research Group
Video Project (CA)
Vision Communications (NY)
Women's Energy Matters (CA)
World Energy Efficiency Association
World for Grandchildren (PA)
Yestermorrow Design/Build School (VT)
20/20 Vision National Project

* Signers as of June 30, 1997

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SUSTAINABLE ENERGY COALITION

315 Circle Avenue, #2, Takoma Park, MD 20912-4836 (301-270-2258; fax: 301-891-2866)

**National Post-Election Survey Finds Voters
Strongly Support Renewable Energy and Efficiency Measures and
Oppose Funding for Fossil Fuel and Nuclear Power Programs**

**Most Have Concerns About Climate Change;
Majority Support International Climate Change Treaty**

**Majority Support Mandating Renewables and Efficiency
in Federal Electric Utility Restructuring Legislation;
Most Oppose Recovery of Uneconomic Nuclear Assets**

**For Release: December 11, 1996
Wednesday, 10:00 a.m.**

**Contact: Henry Griggs (202-326-8714)
Ken Bossong (301-270-2258)**

Washington DC -- A national public opinion survey conducted immediately following the November election, and released today by a national coalition of business, environmental, consumer, and energy policy organizations, found broad, consistent, and bi-partisan support for federal funding, tax incentives, and appliance efficiency standards to promote renewable energy and energy efficient technology programs. However, little support exists for fossil fuels such as coal and oil or for nuclear power technologies like pyroprocessing.

With most Americans viewing global climate change as a serious environmental threat, the majority favor the United States signing an international agreement to set a binding deadline for reducing greenhouse gas emissions. Finally, as Congress and many states consider legislation to deregulate the electric utility industry, voters made clear that they want provisions included to mandate renewable energy, energy efficiency, and environmental protection and they want utilities and shareholders -- not consumers -- to bear the cost for uneconomic "stranded nuclear assets."

These are among the key findings of the survey, "America Speaks Out on Energy: A Survey of 1996 Post-Election Views" conducted for the Sustainable Energy Coalition by the Republican polling firm of Research/Strategy/Management, Inc. of Lanham, MD from November 9 to 14 among a sample of 1,200 registered voters. The survey, which is being simultaneously co-released by 22 other organizations in 16 states, has a margin of error of +/-2.9%.

The 15 questions addressed federal funding of energy research and development, the U.S. Environmental

Protection Agency's (EPA) Green Lights and Energy Star programs, nuclear pyroprocessing, tax support for ethanol and other energy sources, appliance efficiency standards, the seriousness of global climate change, and an international agreement to control greenhouse gas emissions.

In addition, the survey posed a series of questions on the topic of restructuring the electric utility industry, which the new Congress is expected to begin debating early next year. Specific topics addressed include mandating that electricity generators include renewable energy sources in their mix; using a Renewable Portfolio Standard to promote increased use of renewables, requiring utilities to invest in energy efficiency measures, disposing of so-called "stranded nuclear assets," and establishing comparable environmental standards for all utility fossil-fueled plants.

Key findings include:

Federal Energy Budget Issues

For the third year in a row, a majority (56%) of all voters, and nearly two-thirds (66%) of those expressing a preference, would give the highest priority to funding the U.S. Department of Energy's (DOE) renewable energy and energy efficiency research and development (R&D) programs. On the other hand, nearly a third (31%) of respondents selected nuclear power as the first R&D program that should be subject to budget cuts, followed by fossil fuels (21%).

A plurality (45%) of voters favor maintaining funding for EPA's Green Lights, Energy Star and other voluntary energy efficiency programs at the current levels, and 24% favor increased funding.

A plurality (44%) of voters also oppose Congress funding the nuclear pyroprocessing program. Opposition is particularly strong among Republicans and Independents, where 54% of voters expressing an opinion were opposed to continued funding.

Tax Incentives and Priorities

Although 73% of respondents said that cutting taxes made at least some difference in how they voted for Congress, a majority (52%) of all voters, and nearly two-thirds (62%) of those stating a preference, supported tax incentives for either renewable energy or energy efficiency efforts. Support for natural gas, other fossil fuels, and nuclear power tax incentives only measured in the single digits for each.

Moreover, an overwhelming majority (83%) noted their preference for redirecting tax breaks to renewable fuels while only 10% felt they should continue to be given to oil companies. Nearly three-quarters of voters (71%) also support continuing the federal tax exemption for ethanol-blended gasoline while only 20% are opposed.

Appliance Efficiency Standards

Nearly two-thirds (65%) of voters, including a majority of Republicans (53%), favor strengthening appliance efficiency standards. This support exists even though a majority of respondents (56% vs. 35%) — when asked about the role of government in the economy — believe that the government is generally doing too many things. In response to a similar question asked a year ago, only 48% of voters favored

having the government continue to strengthen appliance efficiency standards while 46% preferred letting the market place determine new standards.

Climate Change; Signing an International Agreement

For the second year in a row, over seventy percent (71%) of voters said they viewed global climate change as a serious threat. This view extends across all political party affiliations including Reform Party members (83%), Democrats (82%), Independents (72%), and Republicans (56%).

Half of all respondents said they were in favor of the United States signing an international agreement that would set a legally binding deadline for reducing greenhouse gas emissions. A fifth of voters (20%) are somewhat opposed while only 21% strongly oppose signing such a treaty. The strongest support comes from voters (66%) who cast their ballot in the November 1996 election for President Clinton, whose Administration will be taking the lead in negotiating a treaty throughout the coming year.

Electric Utility Restructuring

A majority (53%) of voters favor Congress requiring electricity companies to use renewable energy sources while 44% would leave the choice up to the companies' discretion. Even stronger support (57%) was expressed for including a Renewable Portfolio Standard (that would direct electricity generators to include a percentage of renewables in their energy mix) in federal electric utility restructuring legislation even if it means higher utility bills.

By a large majority (69%), voters favor requiring utilities to invest in energy efficiency programs; only 10% of voters strongly oppose such a requirement while 16% are somewhat opposed. This view is particularly strong among voters (84%) who believe the environment should be a top congressional priority in 1997.

By a lopsided margin (70%), voters felt that utilities and their shareholders should be primarily responsible for paying the debt on existing nuclear power plants that may not be able to compete in a restructured utility market. Only 14% thought that the consumers served by these utilities should pay for these so-called "stranded assets" while 8% indicated that the general public should pay through their taxes.

Finally, a majority of voters (53%) "strongly favor" strong environmental standards that would apply equally to all fossil fuel power plants while another 27% "somewhat favor" such standards for a combined total of 80%. This view is shared by people of all political stripe including voters (68%) who define themselves as very conservative.

#####

The Sustainable Energy Coalition is a coalition of 40+ national business, environmental, consumer, and energy policy organizations (list available upon request) founded in 1992 to encourage a shift in federal energy priorities to favor renewable energy and energy efficiency.

Copies of the 100+ page survey, "America Speaks Out on Energy: A Survey of 1996 Post-Election Views," are available for \$25/copy. Copies are available without charge to members of the media upon request.

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energy

Innovations

A PROSPEROUS PATH TO A CLEAN ENVIRONMENT

JUNE 1997

A report by

Alliance to Save Energy

American Council for an Energy-Efficient Economy

Natural Resources Defense Council

Tellus Institute

Union of Concerned Scientists

SUSTAINABLE ENERGY BUDGET COALITION

**315 Circle Avenue, #2, Takoma Park, MD 20912-4836
(301-270-2258; fax: 301-891-2866)**

AMERICA SPEAKS OUT ON ENERGY

A Survey of Public Attitudes on Sustainable Energy Issues

Released: January 1996



**survey results gathered in December 1995 by
Research/Strategy/Management, Inc.
Project Directors: Dr. Vincent J. Breglio, Dr. Ronald H. Hinckley
9344 Lanham-Severn Road, Suite 102, Lanham, MD 20706
(301-306-0844; fax: 301-306-0711)**

SUSTAINABLE ENERGY BUDGET COALITION

315 Circle Avenue, #2, Takoma Park, MD 20912-4836 (301-270-2258; fax: 301-891-2866)

AMERICA SPEAKS OUT ON ENERGY

A Survey of Voters' Attitudes on Sustainable Energy Issues

OVERVIEW

Research/Strategy/Management is pleased to present the analysis of the sustainable energy issues survey to the Sustainable Energy Budget Coalition. This section provides a brief introduction to the specifications of the study and a guide to the organization of this document.

RESEARCH DESIGN

This study contains the results of 1,000 telephone interviews with registered voters nationwide. Survey responses were gathered December 1-10, 1995. All respondents were randomly selected using a combination of random and fixed digit telephone number sampling procedures. This introduced both listed and unlisted numbers as well as new households into the available sample. Interviewers screened for registered voters and randomly selected an eligible respondent from each household contacted.

The margin of error for a survey of this size is ± 3.1 percentage points at a significance level of .05 or the 95 percent level of confidence. This means that in 95 out of 100 samples of this type, the sample value at the 50 percent response level for a given question is within $\pm$ percentage points of the value that would be achieved by measuring the whole population. As the response rate for a given question moves away from the 50 percent level, the margin of error decreases. The margin of error for subgroups of the sample are larger, however.

ORGANIZATION OF THE REPORT

This report is organized in the following manner:

- * This Overview covering the principal features of how the study was conducted;
- * An Executive Summary that provides the basic demographic data for those surveyed, the text of the core questions asked in the order they appeared in the survey instrument, or questionnaire, and the responses broken down by political party affiliation;
- * A written Analysis of the results of the study including figures and tables;
- * Appendixes that discuss the methodology employed, a description of terms, and additional questions asked to develop background information on the pool of voters surveyed.

SUSTAINABLE ENERGY BUDGET COALITION

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AMERICA SPEAKS OUT ON ENERGY

A Survey of Voters' Attitudes on Sustainable Energy Issues

EXECUTIVE SUMMARY

This study was conducted for the Sustainable Energy Budget Coalition by Research/Strategy/Management, Inc. of Lanham, Maryland. The study was conducted by Dr. Vincent J. Breglio and Dr. Ronald H. Hinckley.

It contains the results of 1,000 telephone interviews with registered voters nationwide. Survey responses were gathered December 1-10, 1995. All respondents were randomly selected using a combination of random and fixed digit telephone number sampling procedures. This introduced both listed and unlisted numbers as well as new households into the available sample. Interviewers screened for registered voters and randomly selected an eligible respondent from each household contacted. The application of these procedures produced a calculable probability of being included in the survey sample for each member of the potential universe.

At the most conservative proportion confidence interval (where the responses rates to a given question with two available responses are 50 percent), the margin of error for a survey of this size ($n = 1,000$) is ± 3.1 percentage points at a significance level of .05 or the 95 percent level of confidence. This means that in 95 out of 100 samples of this type, the sample value at the 50 percent response level for a given question is within ± 3.1 percentage points of the value that would be achieved by measuring the whole population. As the response rate for a given question moves away from the 50 percent level, the margin of error decreases. The margin of error for subgroups of the sample are larger, however.

Demographic data on the pool of respondents is as follows:

Gender: Male - 47.8% (478)
Female - 52.2% (522)

Age: 18-24 - 7%
25-29 - 8%
30-34 - 8%
35-39 - 12%
40-44 - 12%
45-49 - 12%
50-54 - 8%
55-59 - 7%
60-64 - 7%
65-74 - 13%
75 and Over - 5%
Refused - 2%

Region: Northeast (NE) - 20.3% (203)
 South (SO) - 34.6 (346)
 Midwest/Central (MC) - 24.2% (242)
 West/Pacific (WP) - 20.9% (209)

Military Experience: Respondent Served in Military - 21%
 Family Member Served - 31%
 No Military Service in Family - 47%
 Don't Know/Refused - 1%

Race: White - 83
 Afro-American/Black - 8%
 Hispanic - 3%
 Oriental - 1%
 Other - 3%
 Refused - 2%

Education: Less Than High School - 7%
 High School Graduate - 33%
 Some College - 27%
 College Graduate - 21%
 Post-Graduate - 11%
 Refused - 2%

Income: Up to \$10,000 - 4%
 \$10,000 - \$14,999 - 7%
 \$15,000 - \$19,999 - 6%
 \$20,000 - \$24,999 - 8%
 \$25,000 - \$29,999 - 9%
 \$30,000 - \$39,999 - 15%
 \$40,000 - \$49,999 - 12%
 \$50,000 - \$74,999 - 16%
 \$7,000 and Over - 13%
 Don't Know/Refused - 11%

Political Party: Strong Republican - 18%
 Not-So-Strong Republican - 14%
 Independent/Lean Republican - 10%
 Independent - 9%
 Independent/Lean Democrat - 10%
 Not-So-Strong Democrat - 14%
 Strong Democratic - 16%
 Don't Know/Refused - 7%

Political Ideology: Very Conservative - 23%
 Somewhat Conservative - 38%
 Moderate - 7%
 Somewhat Liberal - 21%
 Very Liberal - 5%
 Don't Know/Refused - 6%

Questions and Answers:

Many federal government agencies and departments are having their budgets cut as Congress and the Administration try to reduce the deficit. This requires them to focus their funds on the programs with the highest priorities. Take the Department of Energy, for example, it has five spending areas for research and development that are under review: 1) renewable energy, involving solar, wind, geothermal, biomass, and hydroelectric power; 2) nuclear power; 3) technologies to improve energy efficiency and conservation; 4) fossil fuels such as oil, gasoline, and coal; and 5) natural gas.

Question #1 (aka Q.31). Which of these research and development programs do you think should receive the highest priority for funding in the Department of Energy's research and development budget?

- Renewable Energy Involving Solar, Wind, Geothermal, Biomass and Hydroelectric Power
 - 34.1% (R-31.9%; D-33.2%; I-39.0%)
- Technologies to Improve Energy Efficiency and Conservation
 - 21.0% (R-19.8%; D-22.9%; I-19.0%)
- Natural Gas
 - 9.0% (R-11.4%; D- 8.0%; I- 4.3%)
- Fossil Fuels Such as Oil, Gasoline and Coal
 - 8.6% (R- 7.0%; D-11.0%; I- 6.4%)
- Nuclear Power
 - 8.5% (R-12.3%; D- 6.3%; I- 4.3%)
- None of These
 - 4.8% (R- 6.0%; D- 3.2%; I- 6.4%)
- Don't Know/Refused
 - 14.0% (R-11.6%; D-15.4%; I-20.0%)

Question #2 (aka Q.32). How important to you is this priority in deciding how you vote in Congressional elections. Would you be much more likely or somewhat more likely to vote for a candidate for Congress who shared this priority to fund research and development spending in (selected choice from above) with you, or wouldn't it matter one way or the other how you would vote?

- Much More Likely To Vote for Candidate Who Shared My Priority
 - 26.2% (R-19.8%; D-30.2%; I-35.0%)
- Somewhat More Likely To Vote for Candidate Who Shared My Priority
 - 32.9% (R-36.4%; D-31.1%; I-32.0%)
- Would Not Matter One Way or the Other
 - 38.7% (R-41.8%; D-36.2%; I-32.0%)
- Don't Know/Refused
 - 2.2% (R- 2.0%; D- 2.4%; I- 1.4%)

Question #3 (aka Q.33). And which of these research and development programs do you think should be subject to funding cuts first in the Department of Energy's research and development budget?

- Nuclear Power
 - 30.5% (R-26.5%; D-34.9%; I-30.0%)
- Fossil Fuels Such as Oil, Gasoline, and Coal
 - 20.3% (R-21.2%; D-18.8%; I-20.0%)
- Renewable Energy, Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power
 - 13.5% (R-17.4%; D-10.2%; I-15.0%)
- Natural Gas
 - 4.9% (R- 3.0%; D- 6.3%; I- 5.3%)

- Technologies to Improve Energy Efficiency and Conservation
 - 4.1% (R- 5.3%; D- 3.4%; I- 2.1%)
- None of These
 - 6.2% (R- 5.8%; D- 6.3%; I- 7.4%)
- Don't Know/Refused
 - 20.5% (R-20.7%; D-20.0%; I-20.0%)

Question #4 (aka Q.34). How important to you is this priority in deciding how you vote in Congressional elections. Would you be much more likely or somewhat more likely to vote for a candidate for Congress who shared this priority to cut research and development spending in (selected choice above) with you, or wouldn't it matter one way or the other how you would vote?

- Much more likely to vote for candidate who shared my priority
 - 18.0% (R-13.0%; D-21.9%; I-22.0%)
- Somewhat more likely to vote for candidate who shared my priority
 - 35.7% (R-39.2%; D-33.8%; I-31.0%)
- Would not matter one way or the other
 - 43.5% (R-45.6%; D-41.4%; I-46.0%)
- Don't Know/Refused
 - 2.7% (R- 2.2%; D- 3.0%; I- 1.5%)

Question #5 (aka Q.35). And which of these research and development programs, if any, do you think should receive federal tax incentives to attract efforts from the private sector to develop and promote it?

- Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power
 - 32.0% (R-29.8%; D-33.2%; I-33.0%)
- Technologies to Improve Energy Efficiency and Conservation
 - 17.0% (R-18.1%; D-17.6%; I-15.0%)
- Natural Gas
 - 9.1% (R-10.5%; D- 7.3%; I- 7.4%)
- Fossil Fuels Such as Oil, Gasoline, and Coal
 - 7.2% (R- 5.6%; D- 8.8%; I- 7.4%)
- Nuclear Power
 - 6.3% (R- 7.9%; D- 4.6%; I- 8.5%)
- None of These
 - 8.6% (R- 9.3%; D-6.3%; I- 15.0%)
- Don't Know/Refused
 - 20.0% (R-18.8%; D-22.2%; I-14.0%)

Question #6 (aka Q.36). The Environmental Protection Agency, the EPA, encourages private industry to invest in cost-effective energy efficiency improvements in their facilities through voluntary programs such as Green Lights and Energy Star Buildings. Federal funds are spent for publicity, training, and education. Some people believe that by helping companies cut energy waste, this program is benefitting the nation and should be retained. Others believe that in order to balance the budget, we can no longer afford to spend money to help even voluntary programs like these. Which opinion is closer to your own?

- Retain Funding for Improving Energy Efficiency
 - 49.9% (R-41.6%; D-60.7%; I-49.0%)
- Cut Funding to Balance Budget
 - 40.6% (R-52.1%; D-28.5%; I-38.0%)
- Don't Know/Refused
 - 9.5% (R- 6.3%; D-10.7%; I-13.0%)

Question #7 (aka Q.37). Please tell me whether you agree or disagree with the following statement that someone else has made: Federal funds should be used to develop a new generation of commercial nuclear power plants? And would that be strongly (agree/disagree) or just somewhat (agree/disagree)?

- Strongly Disagree
 - 47.8 % (R-40.9 %; D-54.1 %; I-49.0 %)
- Somewhat Disagree
 - 23.9 % (R-28.6 %; D-20.2 %; I-19.0 %)
- Somewhat Agree
 - 14.6 % (R-16.7 %; D-12.0 %; I-18.0 %)
- Strongly Agree
 - 8.5 % (R-10.5 %; D- 6.3 %; I- 8.5 %)
- Don't Know/Refused
 - 5.2 % (R- 3.3 %; D- 7.3 %; I- 5.3 %)

Question #8 (aka Q.38). Currently, the federal government has programs that set energy-efficiency standards for home appliances, lighting, motors, and other products and equipment. Some people say that the government should continue to strengthen these efficiency standards because they save money and reduce pollution in the long run. Others say that these standards are already strong enough and that the market place alone should determine whether manufacturers produce new energy saving products. Which comes closer to your view?

- Government Continue to Strengthen Energy Efficiency Standards
 - 47.7 % (R-39.1 %; D-55.1 %; I-45.0 %)
- Marketplace Should Determine New Efficiency Standards
 - 46.1 % (R-58.1 %; D-35.6 %; I-47.0 %)
- Don't Know/Refused
 - 6.2 % (R- 2.8 %; D- 9.3 %; I- 8.5 %)

Question #9 (aka Q.39). In your mind, how serious a threat do you think global climate change, also known as global warming, caused by emissions from the combustion of oil, gasoline, and coal is?

- Very Serious
 - 35.5 % (R-26.0 %; D-42.2 %; I-43.0 %)
- Somewhat Serious
 - 35.4 % (R-34.7 %; D-36.8 %; I-35.0 %)
- Not Too Serious
 - 16.0 % (R-21.6 %; D-11.2 %; I-11.0 %)
- Not a Threat At All
 - 8.7 % (R-13.5 %; D- 4.1 %; I- 8.5 %)
- Don't Know/Refused
 - 4.4 % (R- 4.2 %; D- 5.6 %; I- 3.2 %)

Question #10 (aka Q.40). Oil imports presently account for 52 percent of U.S. oil consumption and contribute \$60 billion yearly to the nation's trade deficit. Do you think we should do something to reduce our dependency on foreign oil or do you think oil imports are not a serious problem and we shouldn't really worry about it?

- We Should Do Something to Reduce Dependency on Foreign Oil
 - 74.8% (R-74.9%; D-74.4%; I-72.0%)
- Oil Imports Are Not a Serious Problem
 - 19.9% (R-20.5%; D-19.3%; I-21.0%)
- Don't Know/Refused
 - 5.3% (R- 4.7%; D- 6.3%; I- 6.4%)

A number of options have been suggested for reducing oil imports. As I read each of them, please tell me whether you favor or oppose the proposed policy. And would that be strongly (favor/oppose) or just somewhat (favor/oppose)? (Asked only of those who believe we should do something about foreign oil imports.)

Question #11 (aka Q.41). Open the Arctic National Wildlife Refuge for oil and gas development.

- Strongly Oppose
 - 44.8% (R-33.9%; D-51.8%; I-56.0%)
- Somewhat Oppose
 - 17.4% (R-19.6%; D-15.7%; I-16.0%)
- Somewhat Favor
 - 18.9% (R-27.0%; D-15.1%; I- 5.9%)
- Strongly Favor
 - 12.2% (R-13.4%; D-10.8%; I-12.0%)
- Don't Know/Refused
 - 6.8% (R- 6.2%; D- 6.6%; I-10.0%)

Question #12 (aka Q.42). Improve the fuel efficiency of cars and light trucks.

- Strongly Favor
 - 74.9% (R-70.5%; D-78.7%; I-75.0%)
- Somewhat Favor
 - 19.0% (R-23.3%; D-16.1%; I-16.0%)
- Somewhat Oppose
 - 3.2% (R- 4.0%; D- 2.6%; I- 2.9%)
- Strongly Oppose
 - 1.9% (R- 0.9%; D- 1.6%; I- 4.4%)
- Don't Know/Refused
 - 1.1% (R- 1.2%; D- 1.0%; I- 1.5%)

Question #13 (aka Q.43). Support the development of renewable energy alternatives to oil.

- Strongly Favor
 - 66.4% (R-61.5%; D-71.1%; I-66.0%)
- Somewhat Favor
 - 23.9% (R-27.6%; D-22.3%; I-18.0%)
- Somewhat Oppose
 - 4.1% (R- 4.7%; D- 2.3%; I- 5.9%)

- Strongly Oppose
 - 2.1% (R- 2.5%; D- 1.3%; I- 5.9%)
- Don't Know/Refused
 - 3.3% (R- 3.7%; D- 3.0%; I- 4.4%)

Question #14 (aka Q.44). Suppose you have the chance to choose your electric company the same way you now can choose your long-distance telephone company and the choice were between a utility company which uses coal to generate electricity and a utility company that produces electricity using cleaner, but slightly more expensive, renewable energy sources. Of the following, which indicates how much more you are willing to spend per month for electricity generated from cleaner renewable sources:

- Up to 2 Percent Per Month
 - 23.2% (R-20.5%; D-25.9%; I-20.0%)
- Up to 5 Percent
 - 25.6% (R-29.3%; D-25.1%; I-16.0%)
- Up to 10 Percent
 - 19.2% (R-18.8%; D-18.3%; I-23.0%)
- Up to 20 Percent
 - 4.8% (R- 4.4%; D- 4.6%; I- 7.4%)
- More Than 20 Percent
 - 2.5% (R- 1.9%; D- 2.9%; I- 4.3%)
- I Wouldn't Pay Any More for Electricity Generated by Renewable Sources
 - 23.9% (R-24.7%; D-22.2%; I-27.0%)
- Don't Know/Refused
 - 0.8% (R- 0.5%; D- 1.0%; I- 2.1%)

Question #15 (aka Q.45). Congress is considering changing the nuclear waste law. Two plans are being proposed (ROTATE ORDER PLANS READ): One The other

... plan under consideration would permit the transportation by rail and truck, in the near future, of radioactive waste from reactors around the country to a temporary, above-ground site in Nevada until a permanent solution can be found.

... plan under consideration calls for the immediate formation of an independent commission to find new solutions to storing radioactive waste before any of it is transported around the country.

Which of these plans do you support?

- Plan A -- Temporary Storage
 - 26.6% (R-29.3%; D-24.4%; I-26.0%)
- Plan B -- New Solutions Before Transporting Around Country
 - 69.7% (R-67.0%; D-72.2%; I-69.0%)
- Don't Know/Refused
 - 3.7% (R- 3.7%; D- 3.4%; I- 5.3%)

PUBLIC OPINION ON SUSTAINABLE ENERGY ISSUES

Introduction

This report presents the results of a national study of 1,000 registered voters on sustainable energy issues. The study was conducted December 1-10, 1995. The energy portion of the study consisted of 15 questions dealing with:

- * the public's funding/budget cutting/tax incentive priorities for the Department of Energy's (DOE) research and development programs and the likely impact of these priorities on voters' decisions;
- * the need to retain Environmental Protection Agency (EPA) programs that encourage industries to become more energy efficient;
- * the need for federal support for new commercial nuclear power plants;
- * whether the government or the market place should set new energy efficiency standards;
- * the seriousness of the threat to global climate change caused by emissions from combustion fuels;
- * what should be done about U.S. dependency on foreign oil;
- * how much people would be willing to pay for electricity from cleaner, renewable energy sources; and
- * proposed changes to the nuclear waste law.

The findings are presented here along with a discussion of the significant demographic and political group variations in responses. Overall, the data show that the public has a set of energy priorities and relatively strong positions on what the government should and should not be doing in the area of sustainable energy.

DOE Research and Development Priorities

In the survey, respondents were reminded about the budget cuts facing federal departments and agencies as Congress and the Administration try to reduce the deficit. With that as a back drop, they were asked three questions pertaining to five energy research and development programs: renewable energy involving solar, wind, geothermal, biomass, and hydroelectric power; nuclear power; technologies to improve energy efficiency and conservation; fossil fuels such as oil, gasoline, and coal; and natural gas. People were asked which of these programs should receive the higher priority for funding in DOE's research and development budget, which should be subject to funding cuts first, and which should receive federal tax incentives to attract private sector efforts to develop and promote the program.

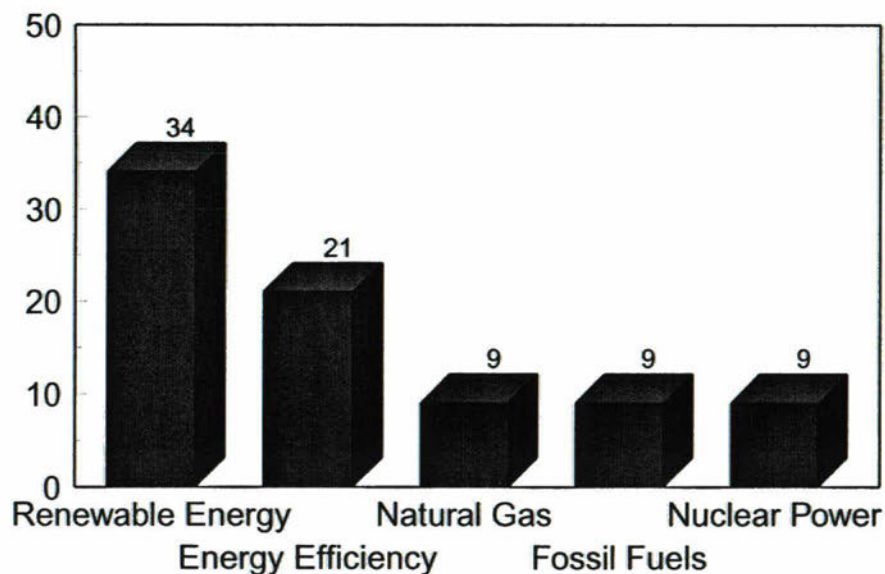
The results are depicted in Figure 1 and Graph 1. Renewable energy programs receive the most public support for R&D funding priorities and federal tax incentives, as about one in three people select it in each case. Second, in both instances, is technologies for greater energy efficiency, chosen by about one in five people. None of the other three programs attract the interest of more than nine percent of the public as a funding priority or as a potential recipient of tax incentives.

The public focuses on two of these programs (nuclear power and fossil fuel) when the topic shifts to budgetary cuts. Three in ten people say that nuclear power R&D programs should be cut first. Two in ten say this about fossil fuel R&D programs.

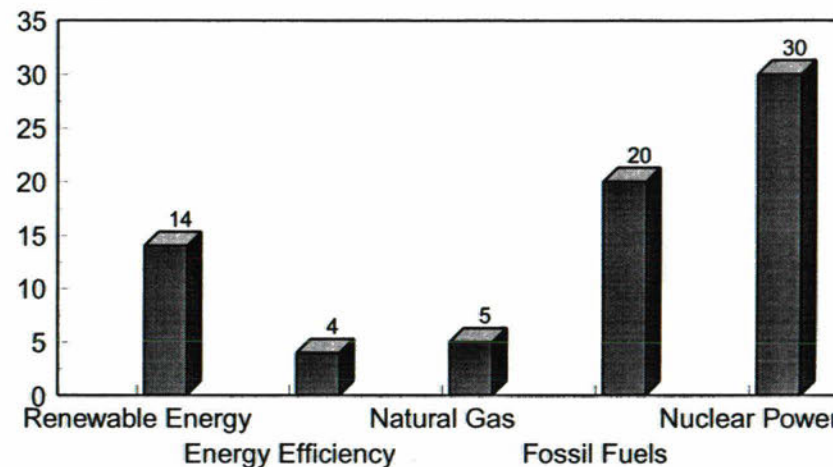
In all three questions, about one in five respondents do not select one of the offered responses (these are not depicted in Figure 1). This indicates that a large segment of the public is not conversant with sustainable energy issues. A close look at who these people are reveals a group that tends to be over 60, women, the less-well educated, have lower income, and from the South.

FIGURE 1: DOE R&D FUNDING, BUDGET CUTTING, AND TAX INCENTIVE PRIORITIES

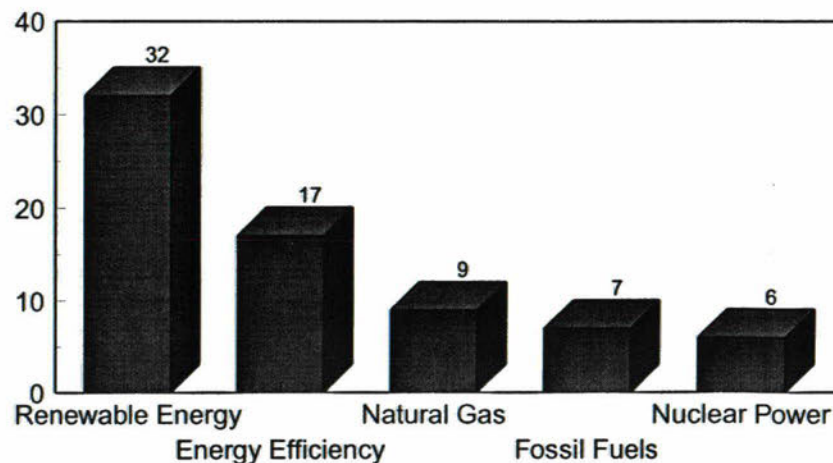
Which Program Should Receive Highest Funding Priority
Percent



Which Program Should Be Subject to Funding Cuts First
Percent

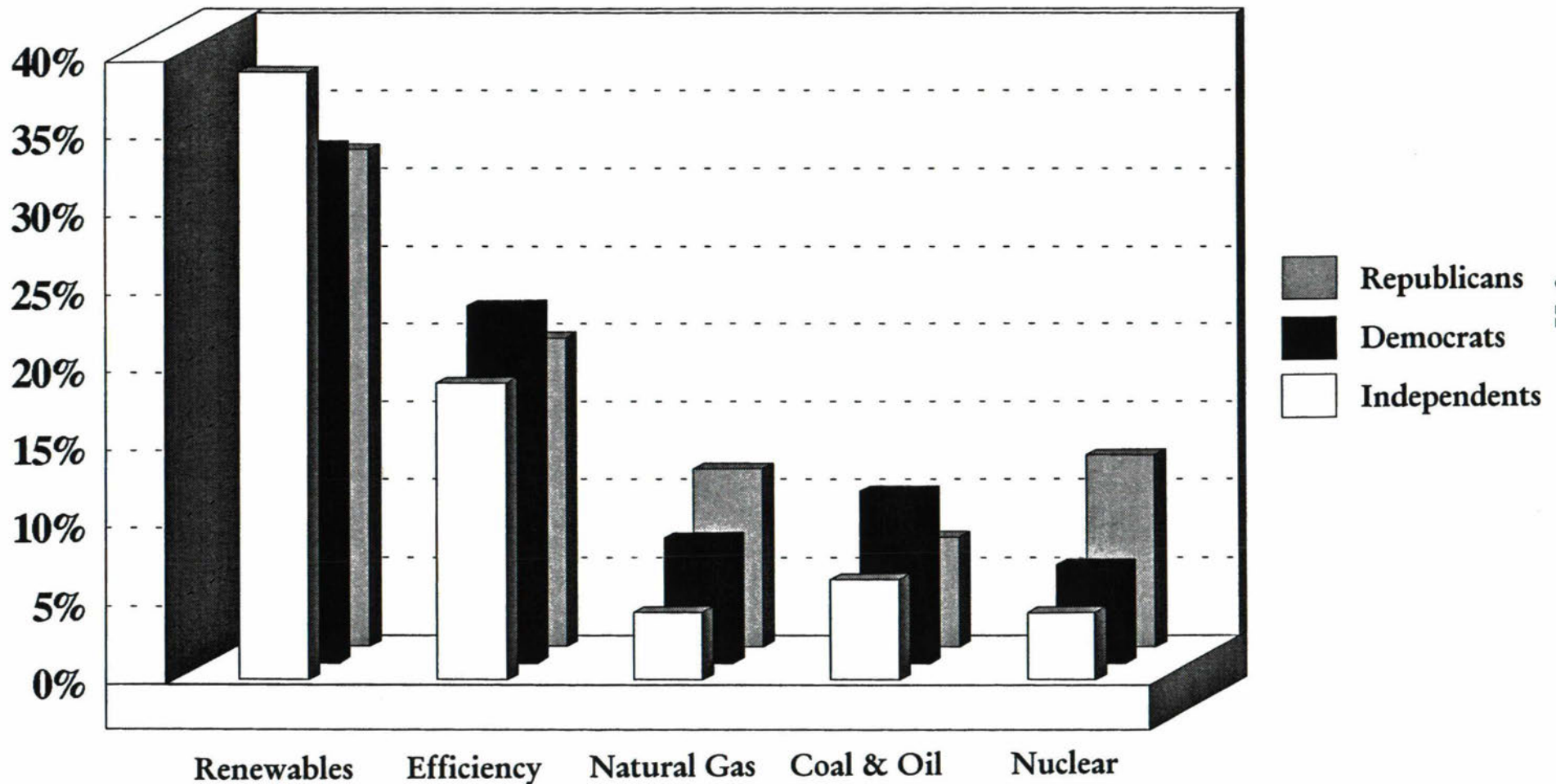


Which Program Should Receive Federal Tax Incentives
Percent



GRAPH 1.

DEPARTMENT OF ENERGY PROGRAMS THAT SHOULD RECEIVE HIGHEST PRIORITY FOR FUNDING



Source: RSM Incorporated
Graphic: Sustainable Energy Budget Coalition

Figure 2 presents a synthesis of the results of the responses to the three questions by adding the percentages in favor of funding priorities and tax incentives for each program and subtracting from that the percentage who would put the program first when it came to budget cuts. The consequence is a clear rank ordering of programs. Renewable energy has the strongest most positive support of the five. Technology to produce energy efficiencies is a solid second. Overall, the natural gas program has only a slightly positive public backing. Fossil fuels and nuclear energy each have a net negative score, meaning that more people favor cutting these programs than collectively favor funding them and providing tax incentives for them.

Support for renewable energy programs and energy efficiency is fairly consistent among subgroups of the population. A couple of groups do stand out as providing more support, however. For renewable energy, people under 60, men (particularly those under 45), whites, Protestants, and those who reside in the Midwest and West show above average backing. Democrats and Republicans are about equal, but Independents are above average in their support and those who are moderate or liberal in terms of their self-described ideology are also more sympathetic. Those who select technologies for energy efficiency tend to be Democrats, moderate to liberal, middle aged (30-60), female, minority, and from the Northeast and the West.

Strongly related to support for these two items are a respondent's education and income. Figure 3 displays the proportions selecting renewable energies or energy efficiencies for priority R&D funding by level education and household income. In both cases, as education or income increases, so does the support for the programs. The increase is sharper for renewable energies (a 13 point increase for both education and income from the lowest category to the highest) than for energy efficiency (a seven point increase).

Support for cutting fossil fuel and nuclear power R&D programs is more evenly distributed across sample subgroups. Nuclear power does attract the animosity disproportionately from Democrats and liberals, minorities, and those under 60. Willingness to cut fossil fuel R&D is spread evenly across the political spectrum, but it does attract more men under 45, those with higher levels of education and income, and residents of the West (likely the Pacific Coast states).

Energy Priorities and Voting

Respondents were asked how important their energy priorities -- either in terms of funding or budget cutting -- would be in deciding how they would vote in Congressional elections. Overall, the responses fall into two categories. About six in ten (59%) said that they would be more likely to vote for a candidate who shares their energy priority, divided between those who said that they would be **much** more likely to support such a candidate (26%) and those who said they would be **somewhat** more likely (33%). The second category consists of about four in ten voters (39%) who said that it would not matter one way or the other. See Graph 2.

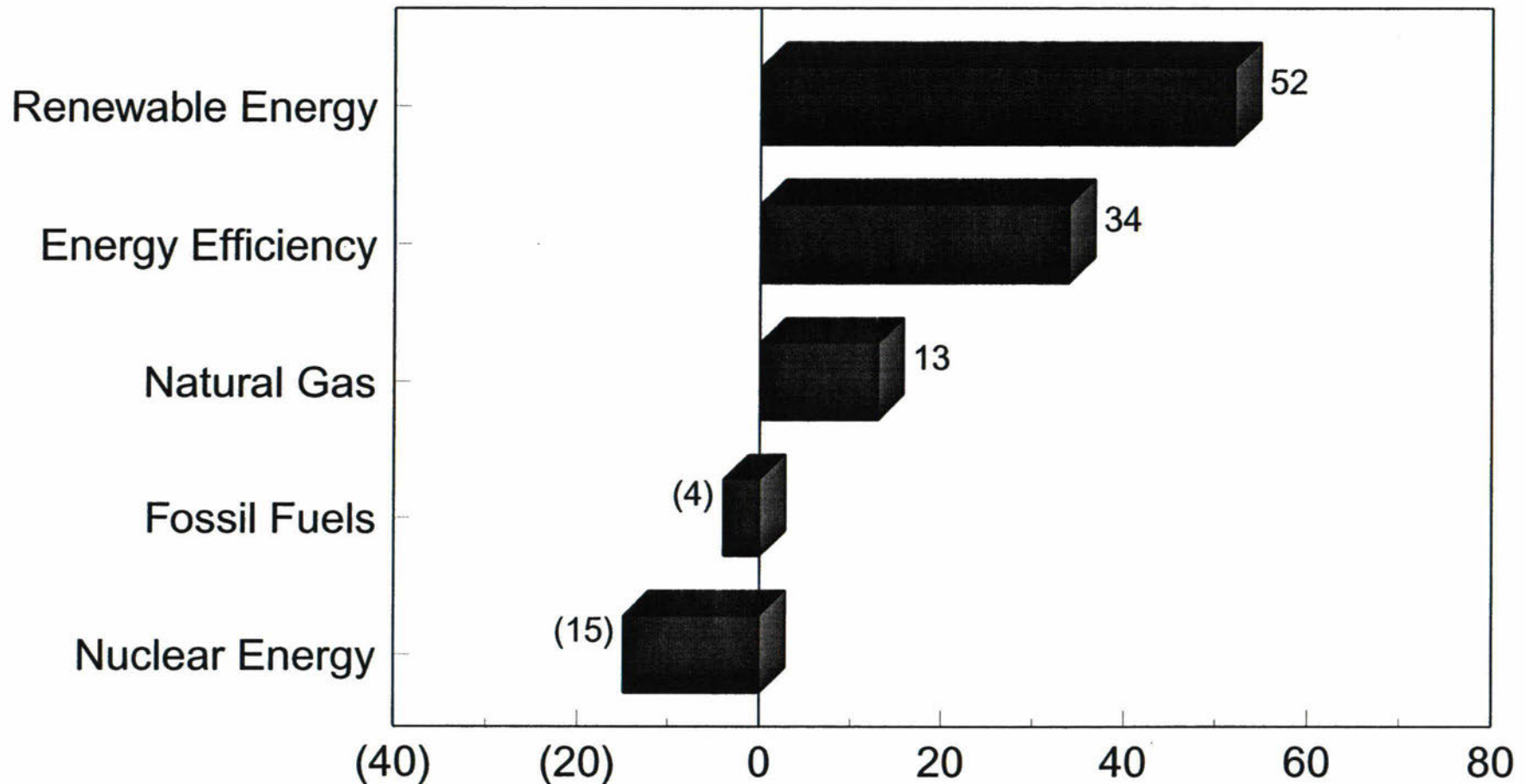
Those who selected renewable energies and technologies for energy efficiency as funding priorities are somewhat more forceful in linking their vote to candidates with shared energy views. Nearly two-thirds of them say that they will be **much** (28 percent for renewable energy, 29 percent for efficiencies) or **somewhat** (35 percent and 36 percent respectively) more likely to vote for a candidate with similar priorities. Figure 4 presents the data for these two groups of respondents.

Independent voters who favor renewable energy programs are more likely to tie their vote to this issues than are partisans as three in four say they are either **much** (46%) or **somewhat** (32%) more likely to vote for a candidate who shares their view. Voters between 30 and 60, who are most likely to turn out, also have above average linkage between vote preference and candidates with similar energy views.

The groups who tie energy efficiency to their vote are somewhat different -- voters under 30 and over 60,

FIGURE 2: NET ENERGY R&D PRIORITY SCORE

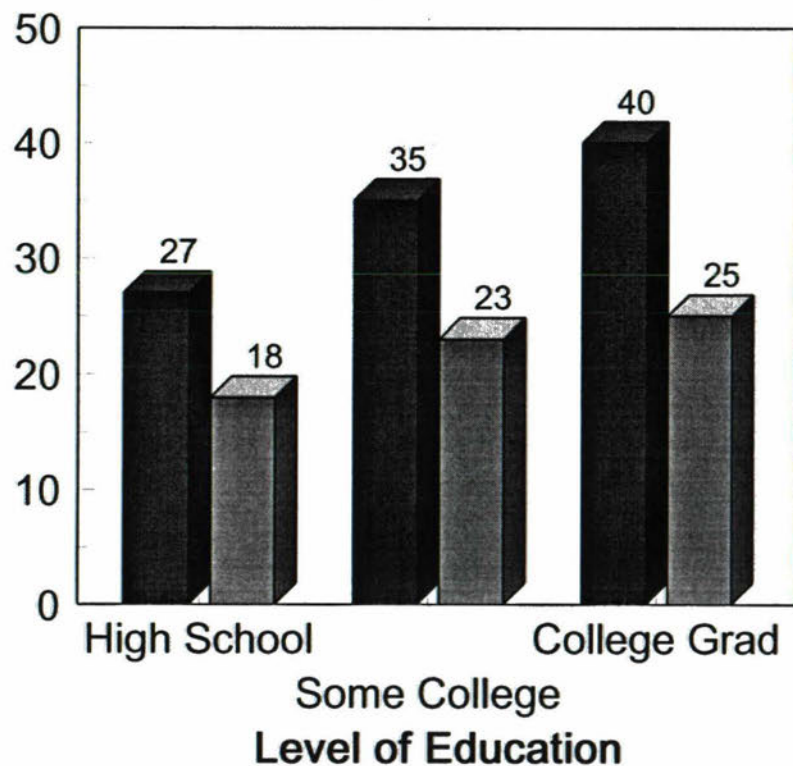
Net Priority Score (Increase Funding + Tax Incentive - Cut Funding)



**FIGURE 3: SUPPORT FOR DOE R&D BUDGET PRIORITIES
BY EDUCATION AND INCOME**

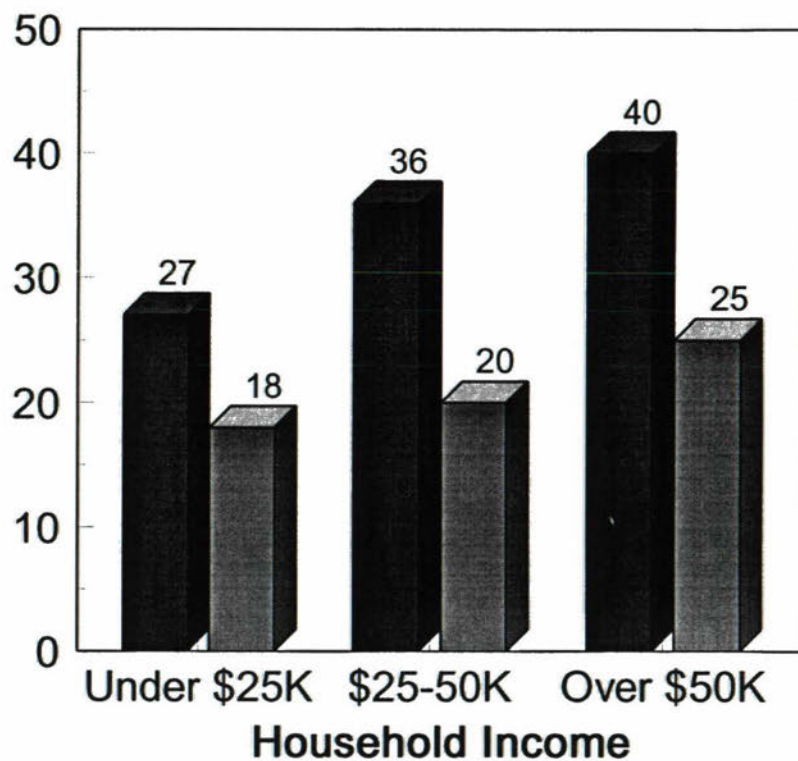
9-II

Percent for Priority in DOE R&D Funding



Renewable Energy Energy Efficiency

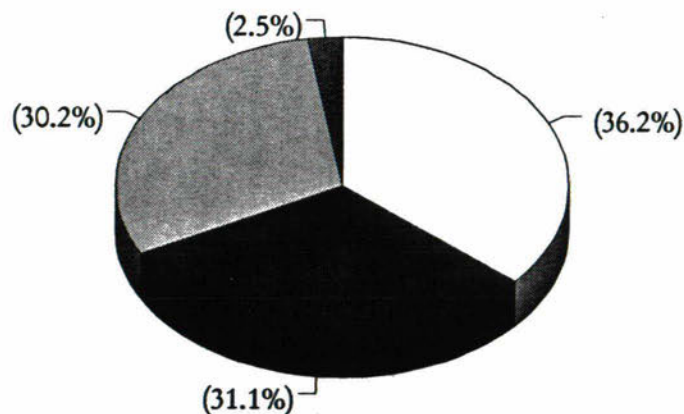
Percent for Priority in DOE R&D Funding



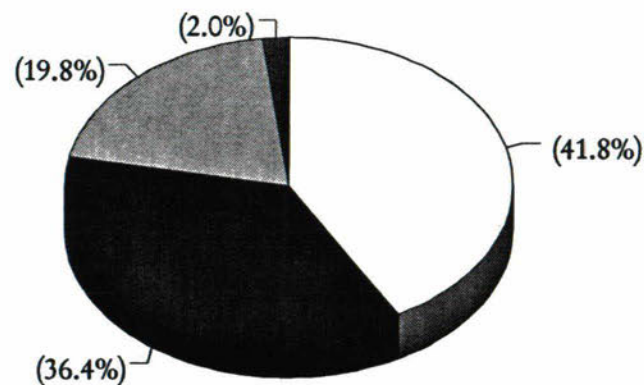
Renewable Energy Energy Efficiency

GRAPH 2.

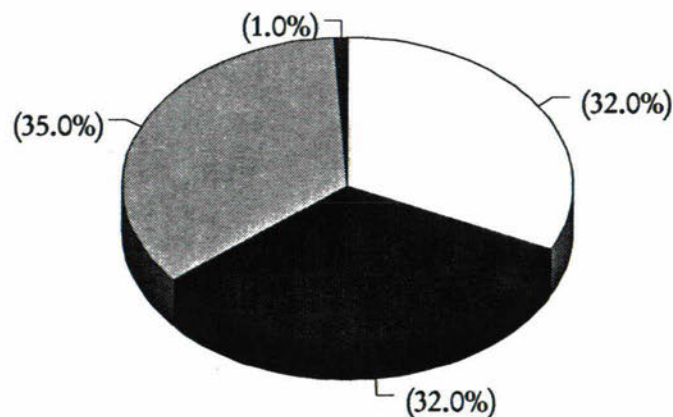
HOW LIKELY ARE YOU TO VOTE FOR A CANDIDATE WHO SHARES YOUR ENERGY PRIORITIES?



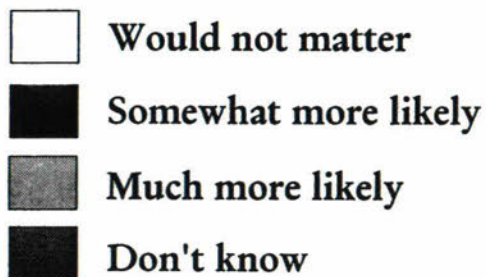
Democrats



Republicans



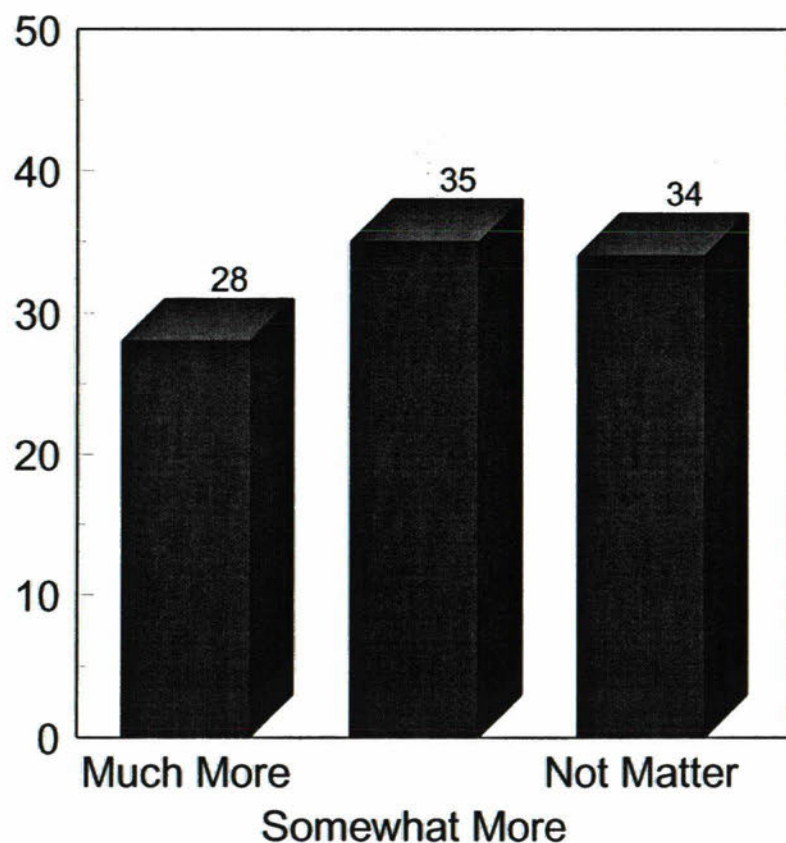
Independents



Source: RSM Incorporated
Graphic: Sustainable Energy Budget Coalition

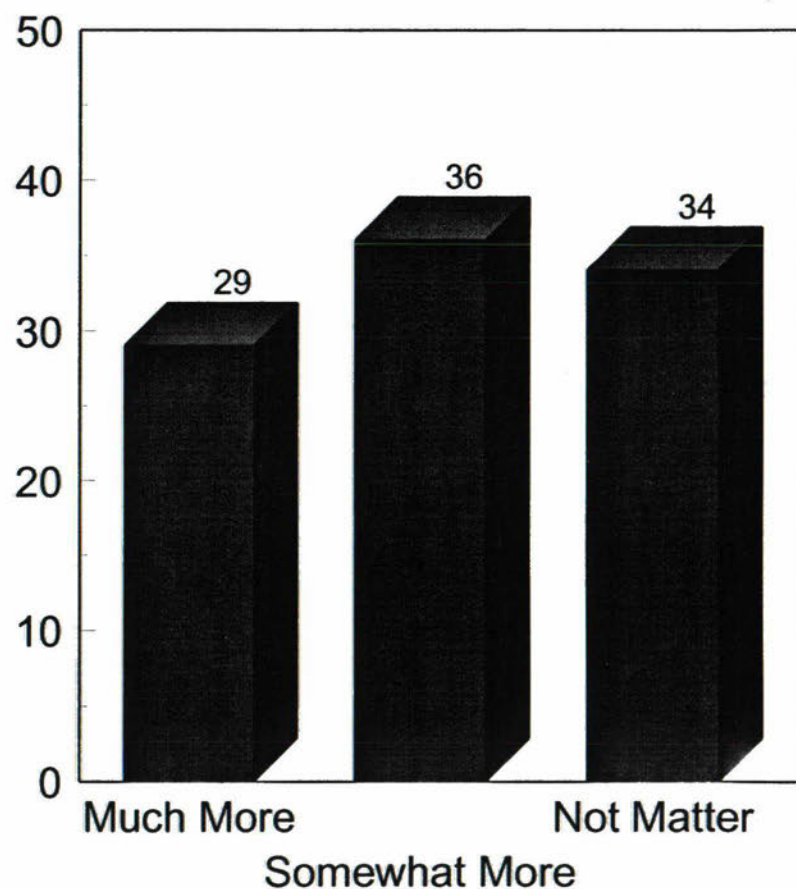
**FIGURE 4: IMPORTANCE OF SHARED ENERGY PRIORITY
IN DECIDING VOTE FOR CONGRESS**

**Renewable Energy is Funding Priority
Percent**



Likelihood of voting for candidate who shares energy priority views.

**Technologies for Energy Efficiencies is Funding Priority
Percent**



men, minorities, and those with a lower income. It might be that "efficiency" suggests savings, which is why it attracts some of these groups more strongly than others.

One finds less of a linkage between shared priorities for budget cuts and likely vote behavior. Only one in six voters (18%) say they are **much** more likely to vote for a candidate who share their energy budget cutting views and one in three (36%) say they are **somewhat** more likely. Forty-four percent (44%) say that it wouldn't matter one way or the other.

However, when one examines the two programs identified by most for budget cuts, a significant difference appears (see Figure 5). Those who select budget cuts for nuclear power research and development have stronger voter linkage to their opinions than those who chose fossil fuels. Two-thirds (65%) of the former say that they will either be **much** (23%) or **somewhat** more likely to vote for a candidate with similar views. Only four in nine (44%) of the latter say that they will be **much** (12%) or **somewhat** (32%) more likely to vote this way, while a majority (53%) say it doesn't matter. Negative opinions about nuclear power can generate vote behavior among a segment of the population, particularly Independents, men over 45, minorities, those with low education and low-income, and voters in the West (Pacific states likely) who believe that nuclear power should be the program cut first in DOE's research and development budget.

Green Lights and Energy Star Buildings

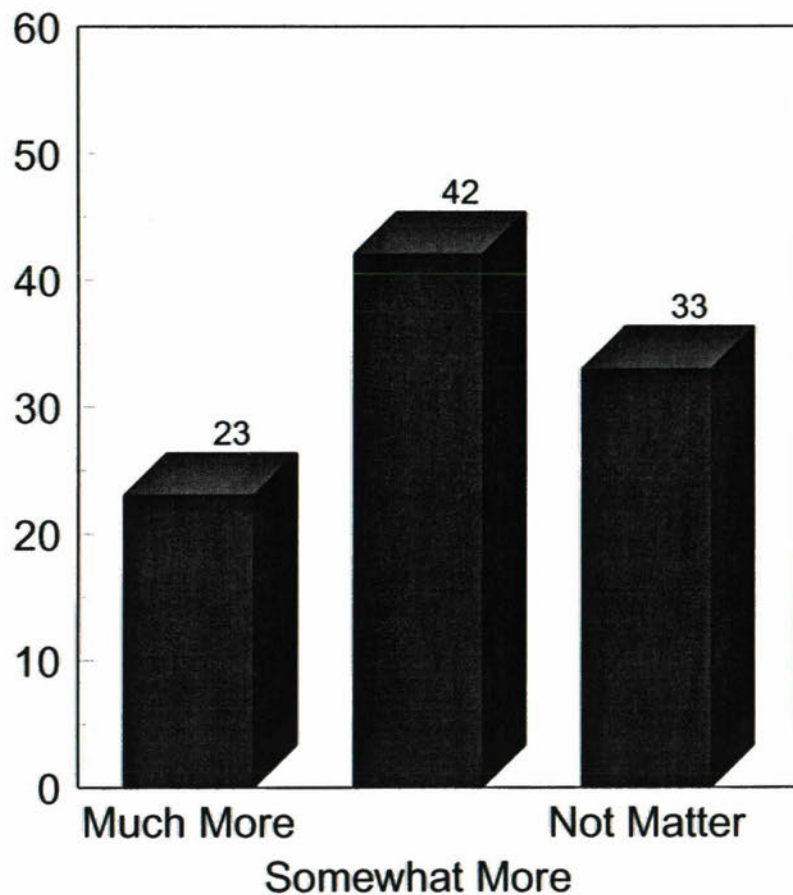
Respondents were informed of these voluntary EPA programs that encourage private industry to invest in cost-effective, energy-efficient improvements in their facilities. They were asked whether this program should be retained because it was benefitting the nation or whether we can no longer afford them if we want to balance the budget. At first, it appears that the support for retaining the program is relatively weak

TABLE 1: SUPPORT FOR EPA GREEN LIGHTS
AND ENERGY STAR BUILDINGS

	RETAIN	ELIMINATE	DON'T KNOW
AGGREGATE	50%	41%	9%
Republicans	42	52	6
Independents	49	38	13
Democrats	61	29	11
High School	42	44	14
Some College	49	43	8
College Graduate	61	34	5
Non-White	54	34	11
White	49	42	9
Under \$25,000	46	40	14
\$25-\$50,000	51	43	6
Over \$50,000	55	39	7

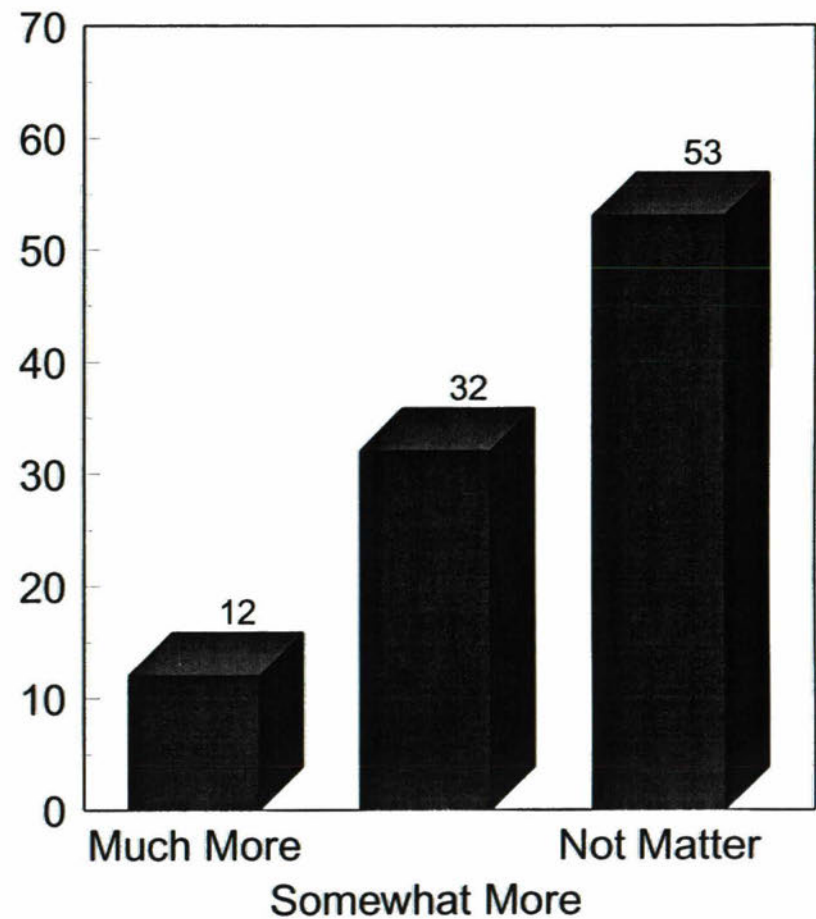
FIGURE 5: IMPORTANCE OF SHARED ENERGY BUDGETING CUTTING PRIORITIES IN VOTE FOR CONGRESS

Nuclear Power is Budget Cutting Priority



Likelihood of Voting for candidate who shares budget cutting views.

Fossil Fuels is Budget Cutting Priority



as barely half (50%) respond this way compared to four in ten (41%) who favor eliminating the funds for the programs. However, looking at another question asked in the survey unrelated to energy helps add some perspective to the public's position.

People were asked whether they agreed or disagree with the following statement: "it is absolutely necessary to slow the growth of social programs to balance the budget in seven years." A majority (52%) either agreed strongly (31%) or agreed somewhat (21%) with this statement. Figure 6 displays these data and data from the question about the EPA programs. Compared to the majority that want to slow social spending to balance the budget, having a majority who favor retaining the EPA programs is relatively positive for this policy. Attitudes vary depending on one's partisanship, education, race, and income as Table 1 shows.

Democrats support retaining the programs; Republicans oppose this; Independents tend to favor retention. Support for funding these programs increases with education and income. Minorities are more likely than whites to favor retention, but a plurality of whites also support the programs. (A majority of whites (55%) favor slowing social spending to balance the budget compared to a majority of non-whites (62%) who oppose slowing social spending.)

Funding a New Generation of Nuclear Power Plants

The data reviewed thus far indicate that nuclear power has a relatively strong negative image among voters. This finding is confirmed by the data displayed in Figure 7. It shows that nearly three out of four respondents disagree (72%) with the notion that federal funds should be used to develop a new generation of commercial nuclear power plants. The negative feeling is intense as nearly half the voters interviewed (48%) indicate that they disagree strongly with the statement. Large majorities, from two-thirds to three-fourths among political and demographic subgroups, oppose federal funding of a new generation of nuclear power plants.

Energy-Efficiency Standards

The voting public is split on whether the government (48%) should continue to strengthen energy-efficiency standards for home appliances, lighting, motors, and other products and equipment or let the market place (46%) determine whether or not manufacturers produce new energy saving products. Partisanship, ideology, education, income, and ethnicity help determine one's position on this issue (see Table 2).

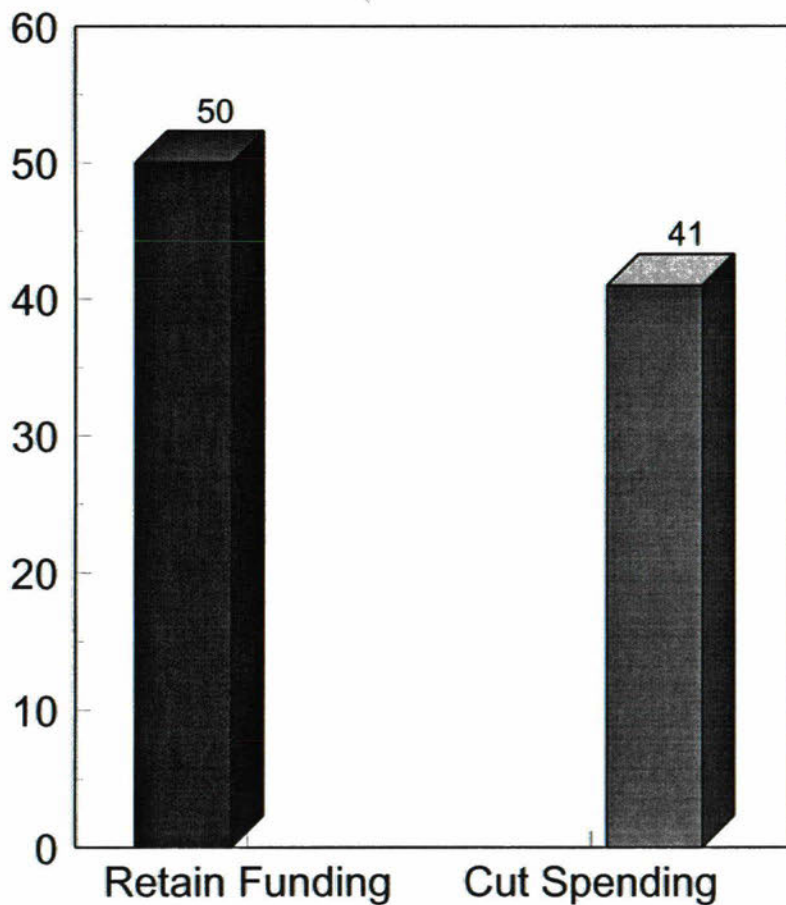
Republicans (58%), the very conservative (56%) and the somewhat conservative (51%) take the predictable position for them of supporting market place determination of energy-efficiency standards. Democrats (55%) and liberals (59%) favor government-set standards. Independents are divided, 47 percent lean toward the market place and 45 percent toward government.

The higher the education, the higher the support for government standards. Those with only a high school education support market place standards, 51 percent to 40 percent, those with some college divided evenly (48%-47%), and college graduates favor government efficiency standards (56%-41%). Income is less predictive. Support for the market place is the same for all three income categories (46%-47%). However, backing for government standards rises from 43 percent among the lowest income earners to 49 percent of those in the middle, to 51 percent in the highest category.

Whites are split fairly evenly. Forty-six percent (46%) favor the government, and 48 percent opt for market place standards. Minorities favor government programs in this area by 55 percent to 40 percent. Because minorities tend to support government programs across the board, it is unclear here whether support is for energy standards, or simply a reflex reaction in favor of government involvement.

FIGURE 6: BUDGET BALANCING AND SPENDING FOR ENERGY EFFICIENCY AND SOCIAL PROGRAMS

Retain EPA Program to Encourage Energy Efficiency or Cut to Balance Budget
Percent



Absolutely Necessary to Slow Social Spending to Balance Budget
Percent

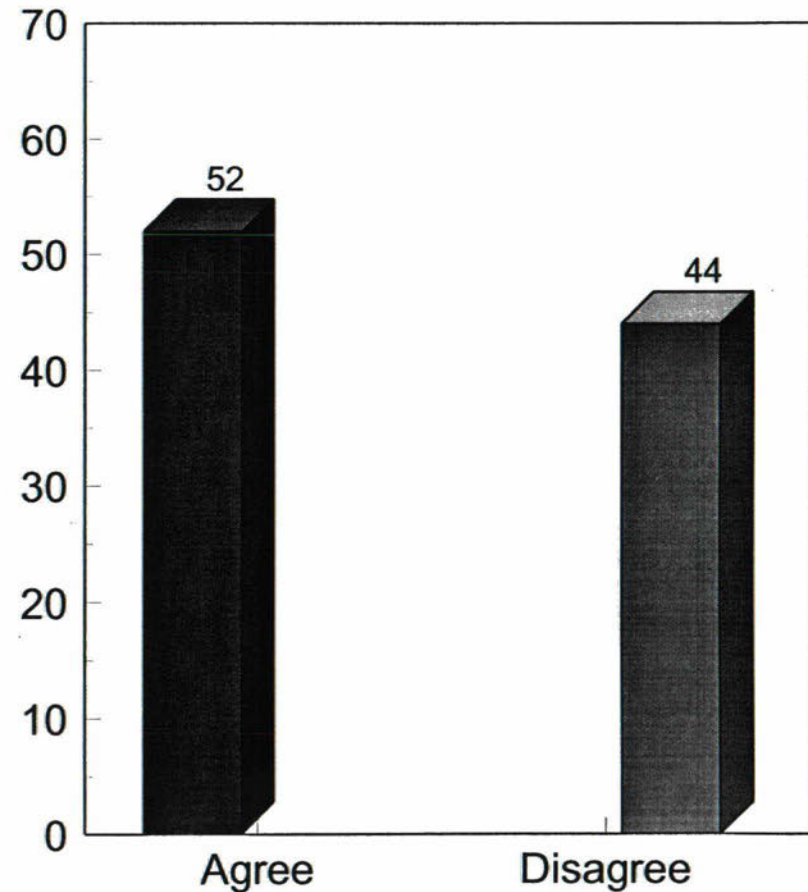
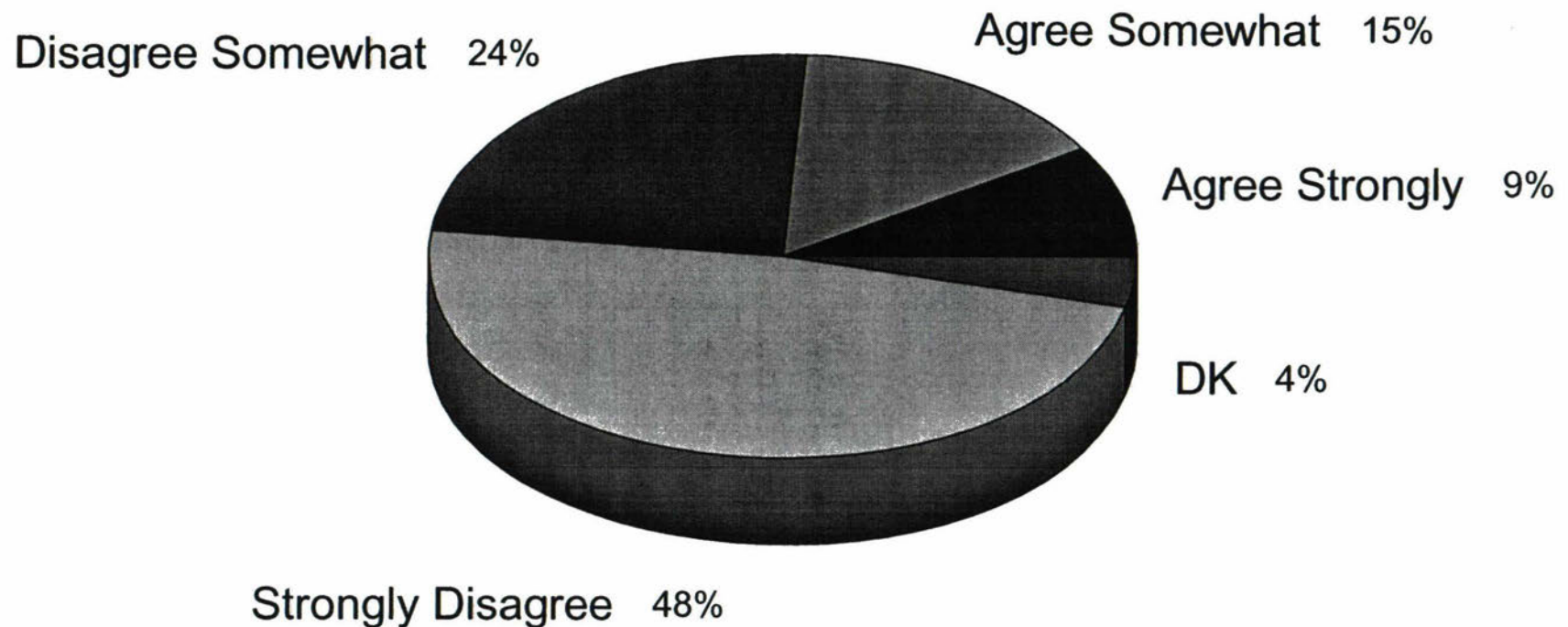


FIGURE 7: SHOULD FEDERAL FUNDS BE USED TO DEVELOP A NEW GENERATION OF COMMERCIAL NUCLEAR POWER PLANTS?



Global Climate Change

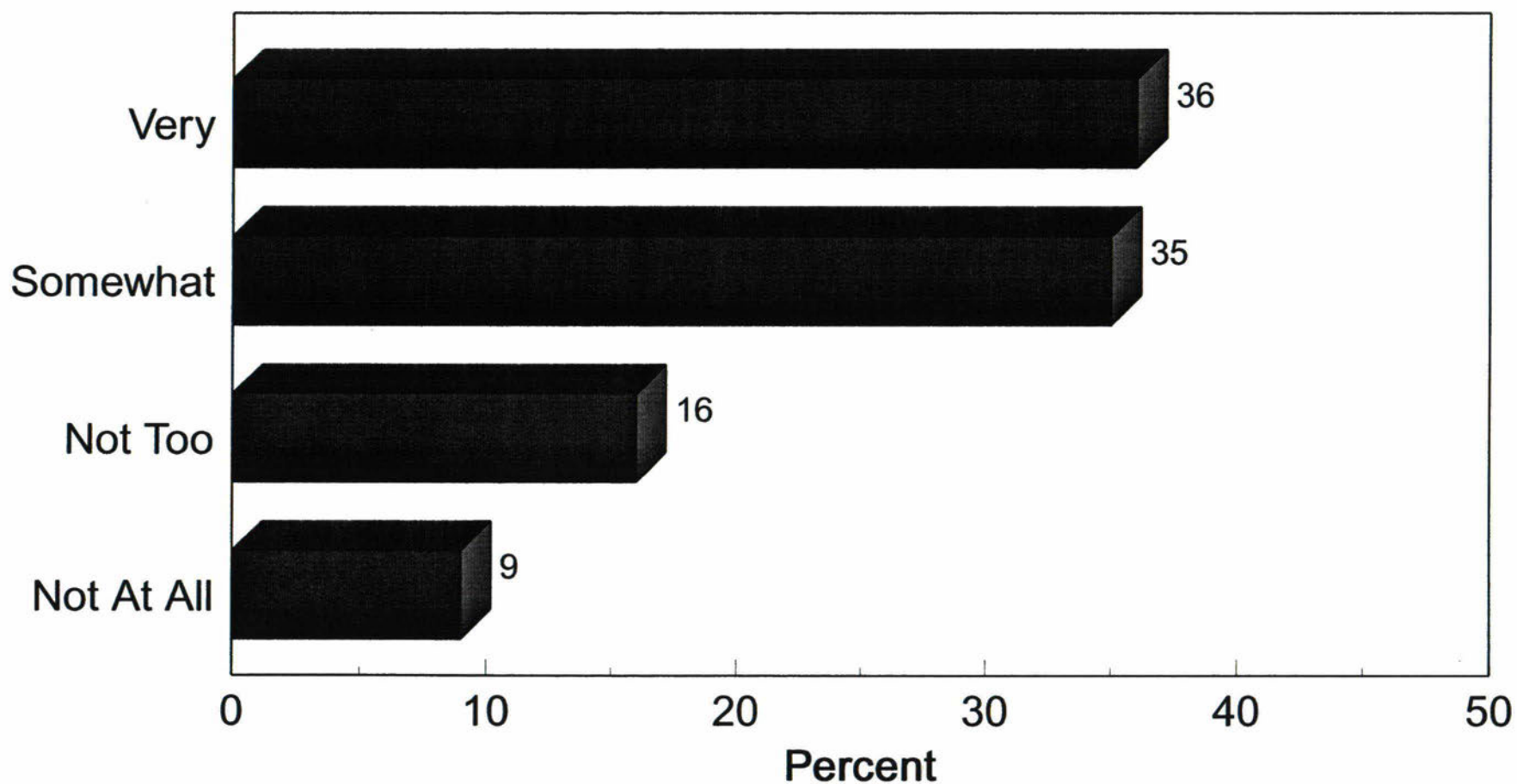
One by-product of the use of combustion fossil fuels is global warming. The public was asked how serious they thought the threat to climate change was from burning oil, gasoline, and coal. Figure 8 and Graph 3 show that seven in ten (71 %) say that it is a very serious (36%) or somewhat serious (35%) threat. Few (9%) believe it is no threat at all. Most demographic groups reflect this response pattern. Women (78%) and non-whites (79%) are more likely to perceive a threat than are men (62%) and whites (69%), by consistently large majorities of all groups see a threat from fossil fuels contributing to global climate change. Those who see the threat as very serious are the strongest supporters of R&D funding and tax incentives for programs to develop renewable energies.

TABLE 2: GOVERNMENT VS. MARKET PLACE
TO SET ENERGY-EFFICIENCY STANDARDS

	GOVERNMENT	MARKET	DON'T KNOW
AGGREGATE	48%	46%	6%
Republicans	39	58	3
Independents	45	47	9
Democrats	55	36	9
Very Conservative	38	56	6
Somewhat Conservative	44	51	5
Liberal	59	36	5
High School	40	51	9
Some College	48	47	5
College Graduate	56	41	4
Under \$25,000	43	47	10
\$25-\$50,000	49	46	5
Over \$50,000	51	46	2
White	46	48	6
Non-White	55	40	5

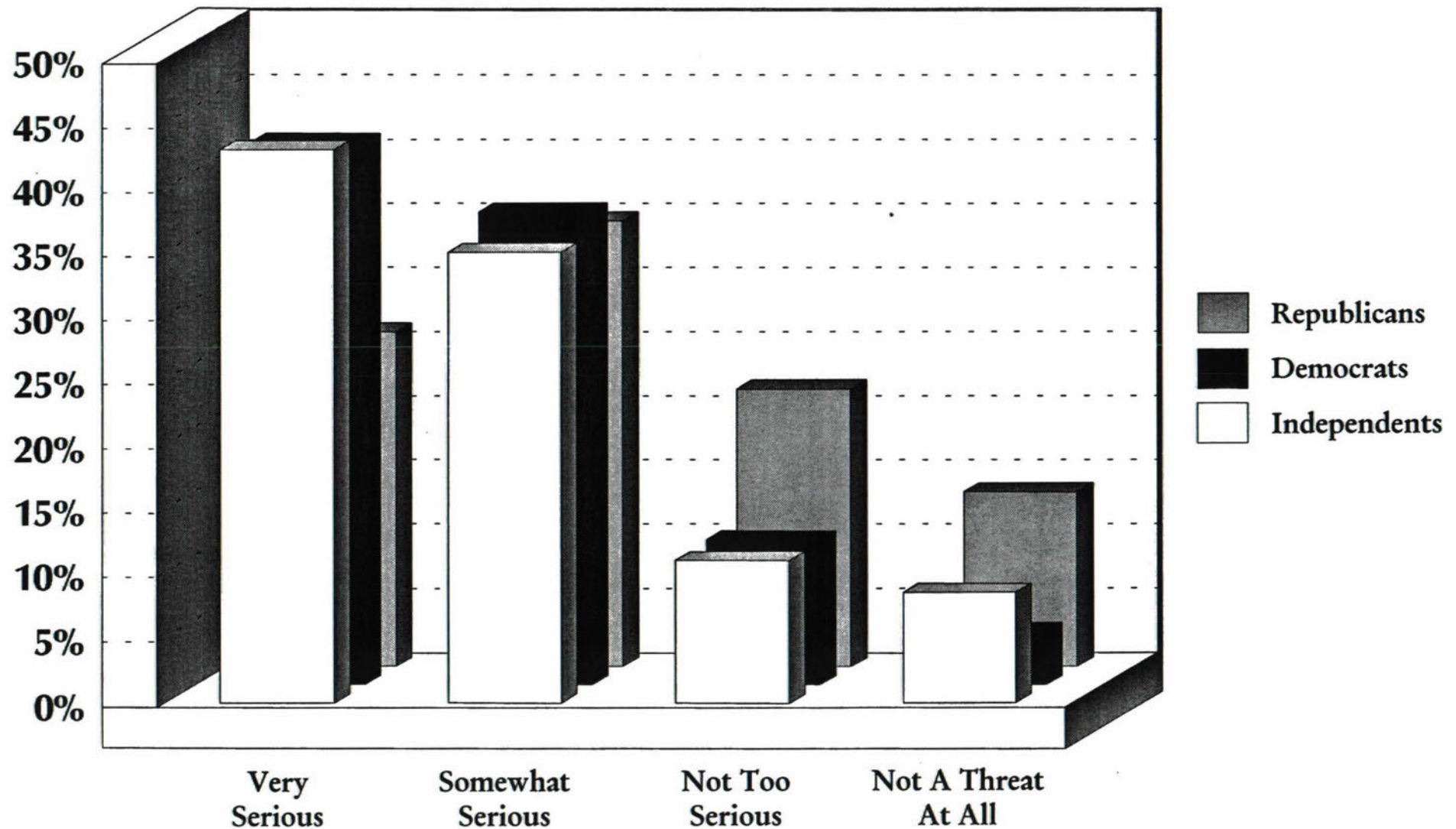
**FIGURE 8: HOW SERIOUS A THREAT IS
GLOBAL CLIMATE CHANGE**

How Serious a Threat



GRAPH 3.

HOW SERIOUS A THREAT DO YOU THINK GLOBAL CLIMATE CHANGE IS?



Source: RSM Incorporated
Graphic: Sustainable Energy Budget Coalition

Oil Dependency

Respondents were told that oil imports account for 52 percent of U.S. petroleum consumption and contribute \$60 billion yearly to the nation's trade balance deficit. They were asked whether the U.S. should do something to reduce this dependency or was it not serious enough a problem to worry about. Overwhelmingly, by 75 percent to 20 percent (see Figure 9 and Graph 4), people say something should be done to reduce the dependency. This position is consistent across all political and demographic subgroups.

Opinions about what to do to reduce this dependency vary according to the options presented. Those who feel something should be done were asked whether they favor or oppose opening the Arctic National Wildlife Refuge for oil and gas development, improving the fuel efficiency of cars and light trucks, and developing renewable energy alternatives to oil. Figure 10 shows that there was strong, two to one, opposition to opening up the wildlife refuge to development (62% - 31%). Opposition is quite intense as nearly half (45%) say they strongly oppose this compared to only 12 percent who strongly favor it. A majority of all party and ideological groups oppose opening the refuge to oil and gas development, but opposition is particularly strong among Independent voters (72% - 18%).

The other two alternatives, improving vehicle fuel efficiency (94%) and developing renewable energy alternatives (90%) enjoy near unanimous support. The support is rather ardent as three in four (75%) say they strongly favor improving fuel efficiency, and two-thirds (66%) strongly favor developing renewable energy alternatives. With such across-the-board support, there is no significant variation by subgroup.

Paying for Cleaner Energy

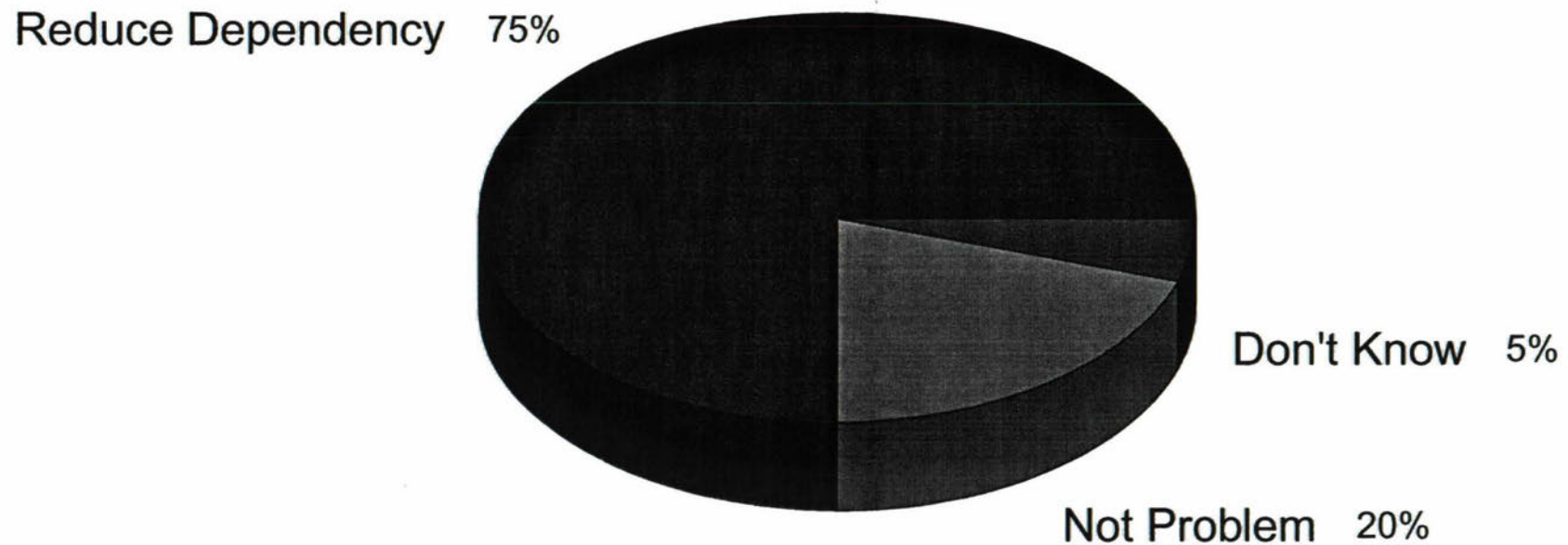
It is one thing to voice opinions favoring sustainable energy policy and another to express willingness to pay for them. To test the public's willingness to accept some direct cost for cleaner, renewable energy, respondents were given a hypothetical opportunity to choose their electric company as they can choose their long-distance telephone company. The choice was between a utility that uses coal to generate electricity and one that produces electricity with a cleaner, but slightly more expensive, renewable energy source.

Three in four respondents indicate a willingness to pay more per month for electricity generated from cleaner renewable energy sources (see Figure 11). They divide into three equal sized groups. About one in four overall (23%) say they would pay up to two percent more a month for electricity from such a source. An almost equal number (26%) say they would pay up to five percent more. The other fourth (26%) profess a willingness to pay more than five percent, with most (19% overall) showing a resolve to pay up to ten percent. A few (5%) say they would pay up to 20 percent more and another small group (3%) purport the acceptability of paying more than 20 percent a month additionally for cleaner, renewable energy as a source for their electricity.

The willingness to pay or not pay more does follow some predictable demographic patterns. The higher the income, the greater the willingness to pay more for cleaner energy. The same direct relationship exists for education: the higher the level of education, the greater the willingness to pay more and the greater the amount one is willing to pay. Conversely, the lower the education or income, the higher the disposition not to pay any more for cleaner, renewable-energy sourced electricity (see Figure 12).

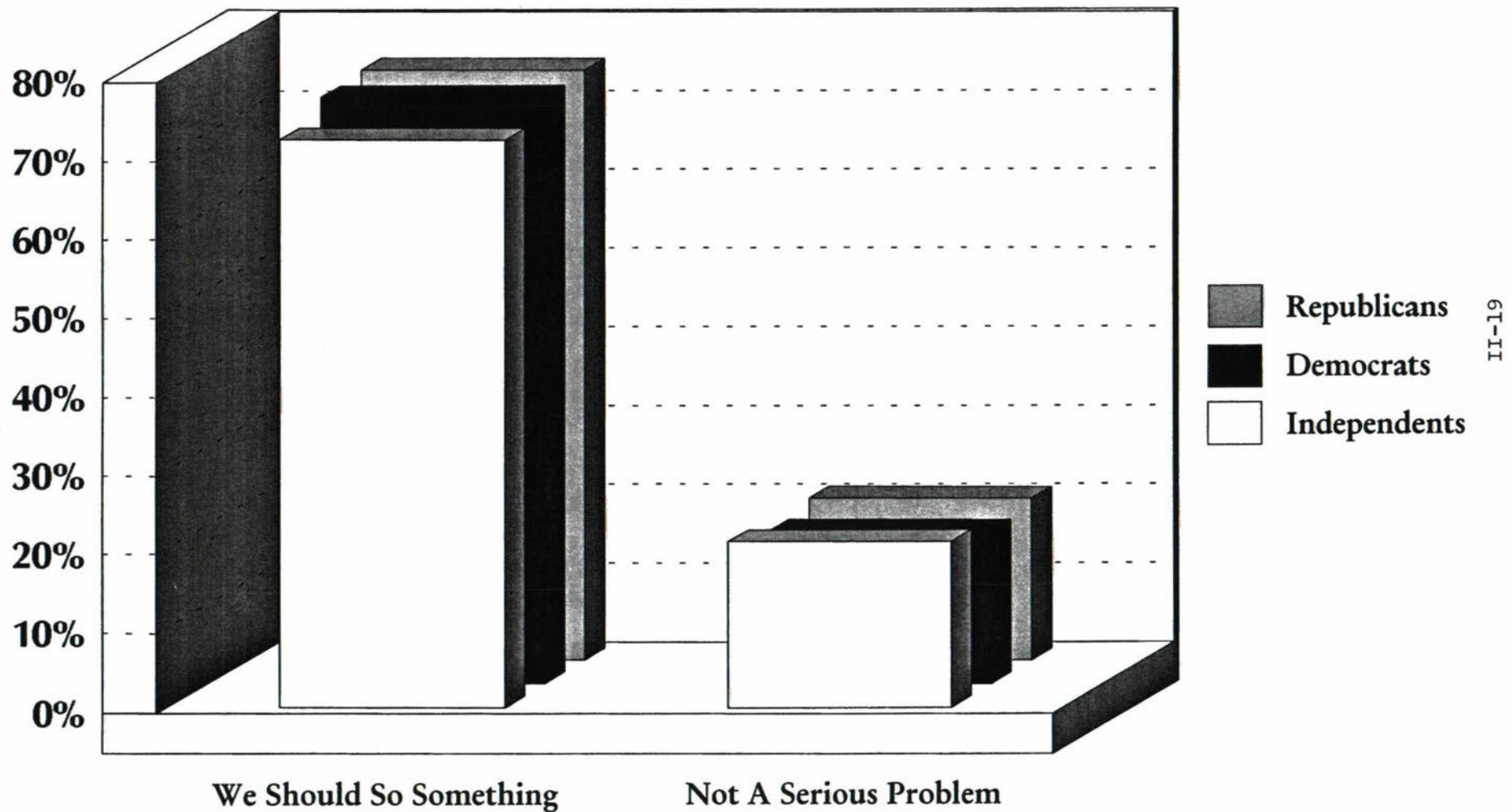
Age also predicts attitudes on this issue. Younger respondents indicate a greater willingness to pay than older voters. Only 16 percent of those 18-29 say they would not pay anything more for cleaner electricity and this percentage increases with each successive age group until 33 percent of those over 60 object to such increased costs. Two things might account for this. It is unclear how many of the youngest respondents actually make a direct payment for their utilities. They may be expressing a willingness to

**FIGURE 9: WHAT SHOULD WE DO
ABOUT FOREIGN OIL DEPENDENCY?**



GRAPH 4.

SHOULD WE REDUCE DEPENDENCY ON FOREIGN OIL IMPORTS?



Source: RSM Incorporated
Graphic: Sustainable Energy Budget Coalition

FIGURE 10: SOLUTIONS TO FOREIGN OIL DEPENDENCY

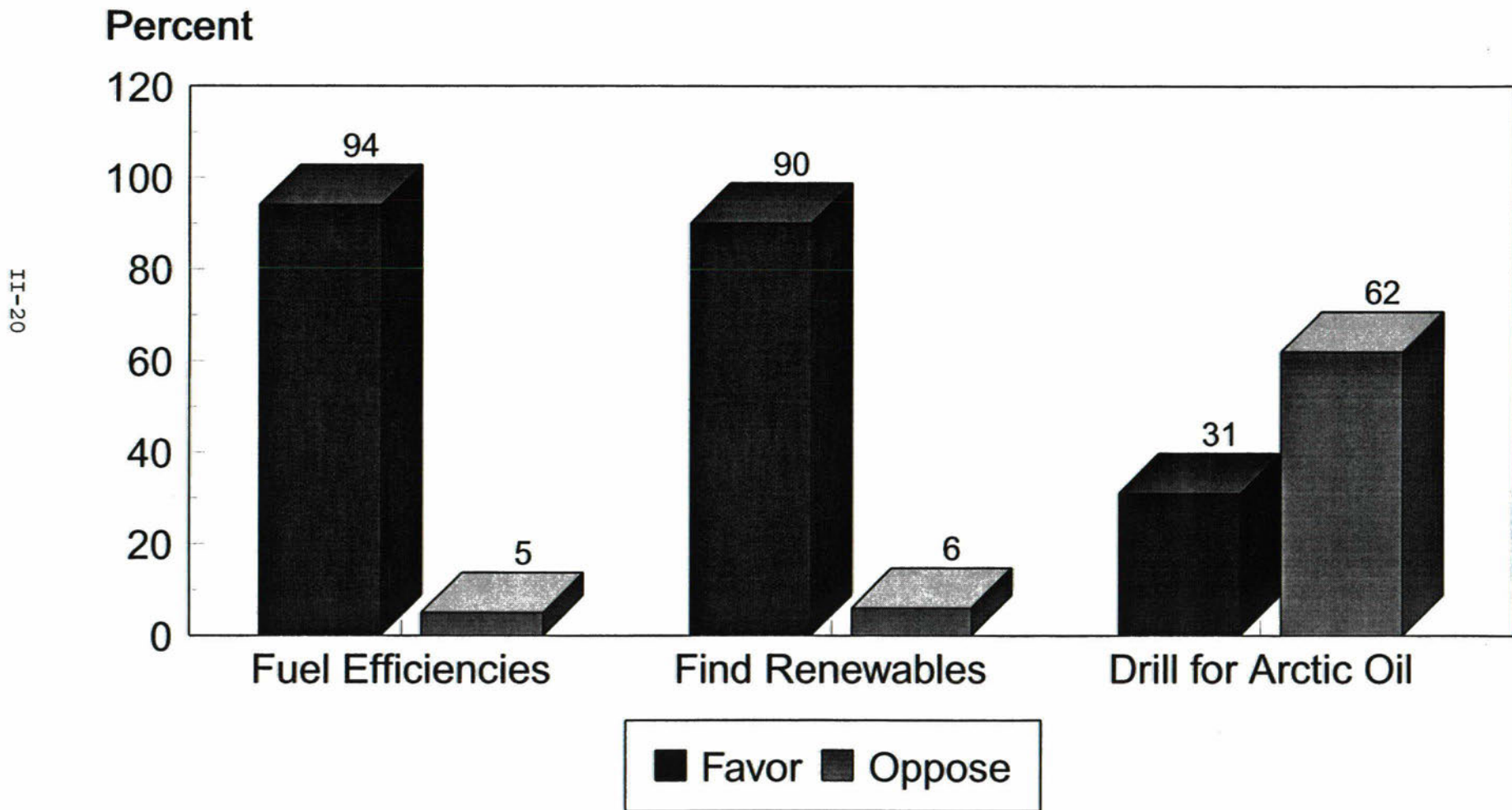


FIGURE 11: HOW MUCH MORE WILLING TO PAY MONTHLY FOR ELECTRICITY FROM CLEANER RENEWABLE SOURCE?

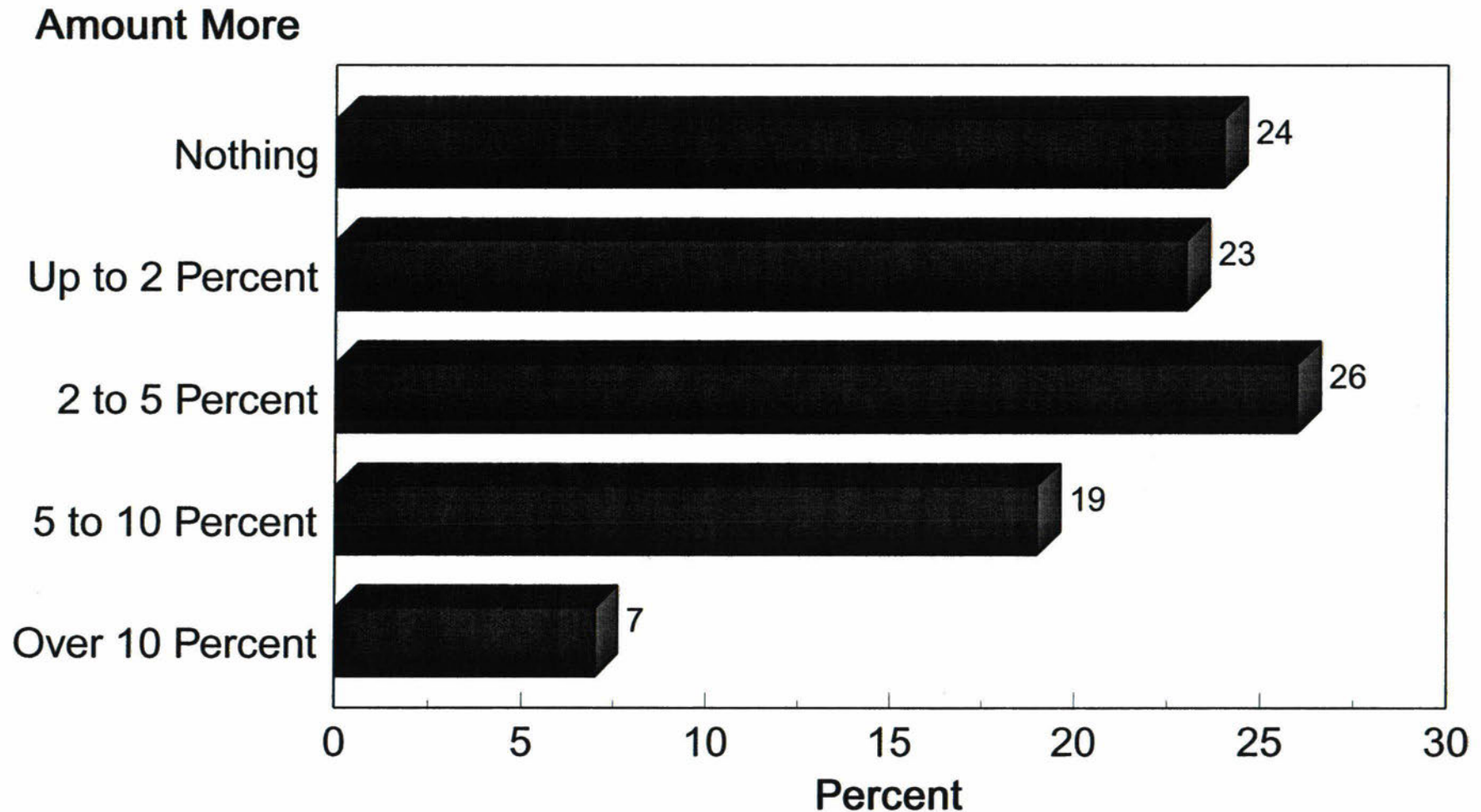
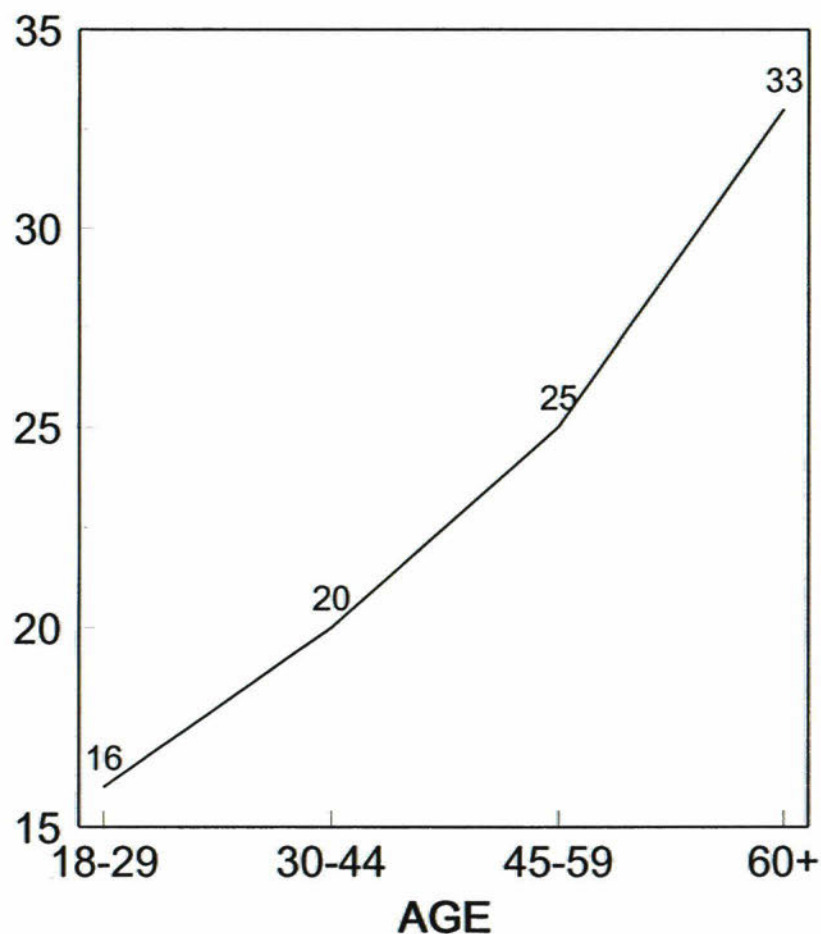
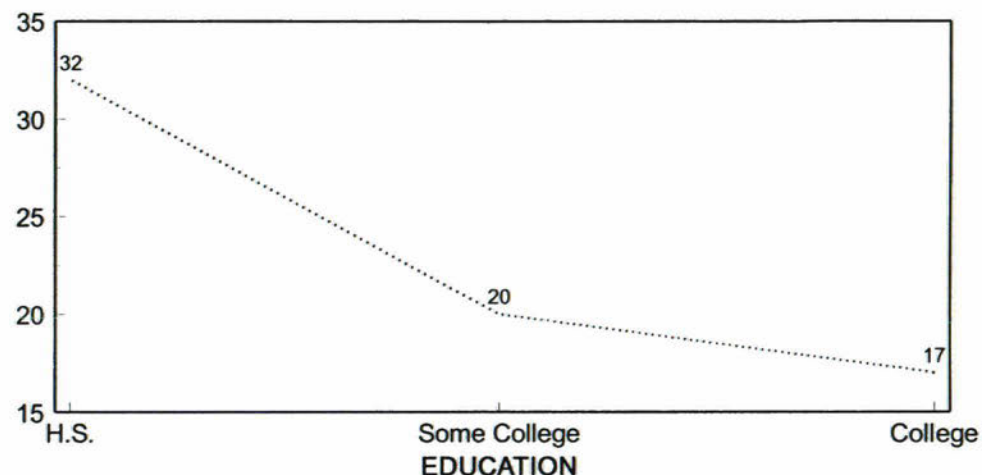


FIGURE 12: UNWILLING TO PAY MORE FOR CLEANER RENEWABLE ENERGY

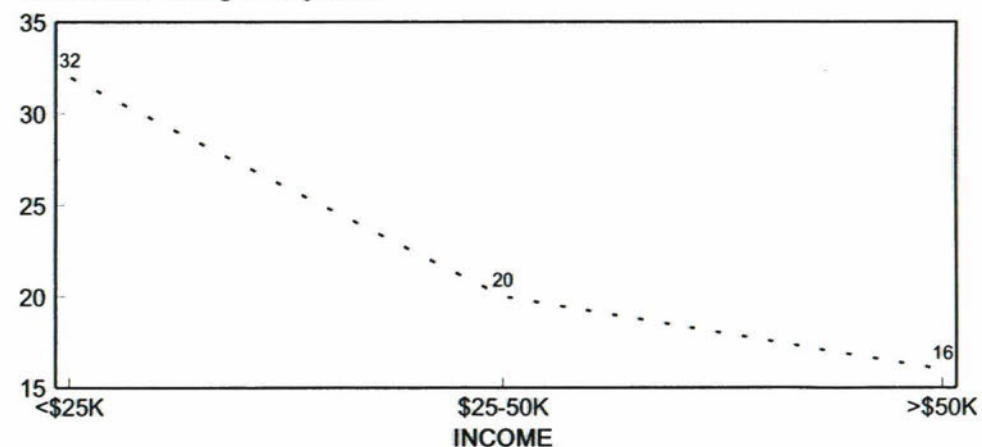
Percent Not Willing To Pay More



Percent Not Willing To Pay More



Percent Not Willing To Pay More



do something that they have no experience doing and is currently "painless" for them. As for the elderly, many live on fixed and/or somewhat low incomes and the burden of such payments would be greater for them than for younger respondents.

Nuclear Waste

Public opposition to nuclear-related energy programs has already been demonstrated. Nuclear power has the lowest priority for DOE research and development funding. It has the lowest priority as a tax incentive. It has the highest priority for budget cuts. The public opposes expending federal funds to develop a new generation of nuclear power plants. This negative view of nuclear energy in general provides the context for what the public thinks about options to change the nuclear waste law.

One plan presented to respondents is to transport radioactive waste from reactors around the country by rail and truck to temporary, above-ground storage facilities in Nevada until a more permanent solution can be found. The other plan is for an independent commission to find new solutions to storing radioactive waste before any of it is transported around the country. When asked to choose between the two, the temporary "transport and store" plan was soundly rejected (only 27 percent support) for the independent commission plan (70%) as noted in Figure 13.

Majorities among all political and demographic groups take this position. Women are more supportive of the commission idea (76%) than are men (63%). This gender-related pattern exists on the other questions related to nuclear power as women show a greater tendency than men to oppose the "nuclear energy" solutions or programs.

Conclusion

In an era of federal budget constrictions, the public clearly prefers some energy policies and programs over others. They place high priority on renewable energies and energy-efficient technologies. They favor cutting funds for fossil fuel and nuclear related programs. This opposition to nuclear power surfaces elsewhere as the public rejects federal funding for a new generation of nuclear power plants and a plan to transport and temporarily store nuclear waste prior to having a permanent solution to nuclear waste disposal.

A solid core of voters, who favor renewable energy or energy efficient technologies or who oppose nuclear power, expresses linkage between their vote and candidates who share their energy priorities.

A majority favor retaining funds for publicity, training, and education regarding EPA's voluntary Green Lights and Energy Star Buildings programs. These programs, which encourage private sector investment in cost-effective, energy efficient facility improvements, are more favorably received than social programs, which a majority of the public recognizes must be cut if the budget is to be balanced.

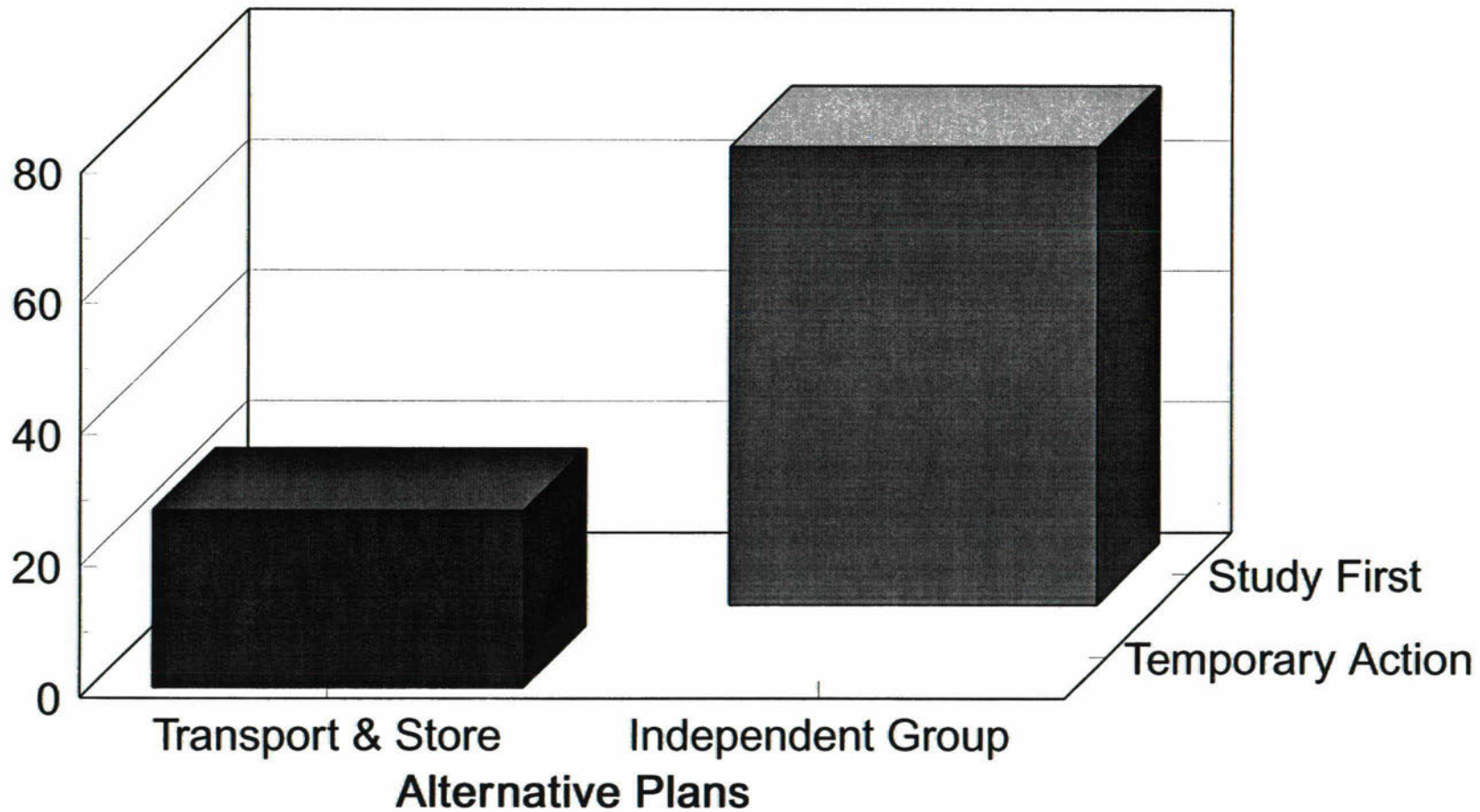
The public is split on predictable political and ideological lines on whether stronger energy-efficiency standards for home appliances, lighting, motors, and other products and equipment should be set by the government or established through the give and take of the market place.

The public is concerned about global warming caused by the combustion of fossil fuels and by dependency on foreign oil. Opening up the Arctic National Wildlife Refuge to oil development is not an acceptable solution to foreign oil dependency, but renewable alternatives and greater vehicle fuel efficiency are.

Generally, people are willing to pay more for electricity from cleaner, alternative energy sources but divide on how much more they are willing to pay. Age, education, and income influence one's position on this issue.

**FIGURE 13: NEW PLANS FOR DEALING
WITH NUCLEAR WASTE**

Percent of Public Support



APPENDIX A

SAMPLE SELECTION

Effective survey research must be based on a sample truly representative of the universe of interest.

The sample for this survey is one-thousand registered voters (N=1,000) nationwide. The margin of error for samples of this size is ± 3.5 percentage points at the 95% level of confidence. This means that in 95 out of 100 samples of this type, the sample value is within ± 3.5 percentage points of the population value.

A combination of random and fixed-digit sampling procedures was used in this study. The sample was developed to the specifications set forth in the previous paragraph. This introduced both listed and unlisted numbers as well as new households into the available sample.

When contact was established, the interviewer screened for registered voters and randomly selected an eligible respondent from each household.

The application of these procedures produced a calculable probability of being included in the survey sample for each member of the potential universe.

Any further questions the reader has about sampling methodology should be referred to the research division of Research/Strategy/Management.

APPENDIX B

DESCRIPTION OF TERMS

1. AGGREGATE DATA -- Information based on the entire sample of respondents, as opposed to that from any given subgroup, such as male/female.
2. BIAS -- A systematic error in research design, sample selection or questionnaire wording that produces a result not representative of the population under study.
3. CHI-SQUARE -- A statistical measure of the degree of relationship between two or more categorical variables in the cross-tabulation.
4. COLLAPSED VARIABLE -- A new variable for use in the analysis created by the analyst by combining two or more categories of response to a given question. A typical example of a collapsed variable is age. Often in the original measurement of age, six or seven different categories of response are used (e.g., under 25, 25 to 34, 35 to 44). For analytic purposes, only three categories -- the young, the middle-aged and the elderly -- are needed. By collapsing the more detailed set of categories, the analyst can generate the desired three-way split by age.
5. CORRELATION COEFFICIENT -- A measure of the linear relationship between two variables. It may be adapted for categorical variables, continuous variables or a combination of the two. Its value may range between +1.0 (perfect positive correlation) and -1.0 (perfect negative correlation). A zero represents no linear relationship. The correlation of a variable with itself is always 1.0.
6. CORRELATION TABLE -- A display of two or more variables and the correlation coefficients between each set of two.
7. CLEANING -- A process of computer cross-checking survey data after it has been keypunched to uncover any mechanical or logical errors.
8. CLOSED-ENDED QUESTIONS -- A question in which the respondent must choose between certain pre-specified answers, such as yes or no, agree or disagree, candidates X or Y, etc.
9. CONFIDENCE INTERVAL -- A measure of the accuracy of using survey data to estimate values for the entire population from which the survey sample was selected. The smaller the confidence interval, the more accurate the survey findings. In general, as the size of a sample increases, the width of the confidence interval decreases, and the accuracy of the estimate improves.
10. CROSS-TABULATION -- A table used to combine and compare the results of two or more questions.
11. DEMOGRAPHIC QUESTIONS -- Questions that determine the composition of the population under study, especially with reference to size and density, distribution, and vital statistics. They are included in every survey to determine relevant physical and social characteristics of the responding sample, such as age, income, sex, marital status, home ownership, etc.
12. EDITING -- The process of reviewing completed interviews to assure that all the questions have been asked and that the skip patterns have been properly followed by the interviewers.

13. FILTER QUESTIONS -- A question used to determine whether a respondent is qualified to answer a succeeding question. For example: "Do you consider yourself to be a Republican or a Democrat?" Those responding "Republican" would be asked the succeeding questions about candidates in the Republican primary, while those who responded "Democrat" would be asked questions about candidates in the Democratic primary.
14. INTERVIEW SCHEDULE -- The questionnaire, or survey instrument. The interview schedule is made up of questions designed to measure the topic of interest. All questions are properly sequenced and tested for bias before use in the field.
15. MEAN -- The arithmetic average, or midpoint, of a distribution of numbers.
16. N -- The number of persons interviews in a sample. A "survey with the N of 500" simply means a sample of 500 interviews.
17. OPEN-ENDED QUESTIONS -- Questions for which there are no pre-determined answers; the respondent may give any answer that comes to his/her mind. A typical open-ended question is, "What would you say is the number one problem in our country today; the one that you, yourself, are most concerned about?"
18. PRE-TEST -- The test of a questionnaire, before it is sent into the field, on a small group of respondents to determine possible weaknesses in it. Any adjustments that seem necessary may then be made before the interview schedule is administered to the larger population.
19. PROBE -- A technique used by the interviewer to elicit from the respondent a more detailed answer to open-ended questions. A probe involves the use of non-biasing suggestions, such as, "What do you mean by that?," "Anything else?," or "Can you be more specific?"
20. REGRESSION ANALYSIS -- A statistical technique used to analyze the relationship between a variable and one or more others. The amount of variation in the dependent variable may be explained or predicted from the impact that the independent variables have.
21. RELATIVE ERROR -- A measure of the proportion of error in an estimate. Relative error is calculated as the standard deviation of an estimate divided by the estimate.
22. SAMPLE VALIDATION -- A comparison of sample characteristics (e.g., age, education, political registration) with those of the whole universe from which the sample was drawn. Sample validation determines how accurately the sample reflects the population under study.
23. SAMPLING ERROR -- The measure of the proportion of error that may occur in a survey as a result of the procedures used to select the sample. If those procedures are based on the principles of random selection, the proportion of that error can be estimated statistically. When all procedures are rigidly controlled and well designed, the sample bias is minimal, and the estimate of sampling error may be used to calculate population estimates.

24. SCALED VARIABLE -- A summary variable that simplifies or makes more meaningful the analysis of survey data. It is created by combining the answers to two or more questions, thereby reflecting the answers to each component question.
25. SEMANTIC DIFFERENTIAL -- A bipolar scale consisting of pairs of descriptive antonyms (either adjectives or adjective phrases) with cues spaced in between. These cues may be numeric, verbal or graphic. The differential is designed to indicate subtle differences in the public's perceptions of persons, institutions, corporations, etc.
26. SKIP PATTERN -- The design in a questionnaire that designates those questions an interviewer should leave out in specific interviews because they don't apply to all respondents.
27. STANDARD DEVIATION -- A measure of dispersion in a set of data. Specifically, it is the square root of the arithmetic mean of the squared deviations of individual scores from the group mean. In a normal distribution, approximately 68.3% of the scores will fall between +/- 1 S.D. from the group mean, 95.5% between +/- 2 S.D. and 99.7% between +/- 3 S.D.
28. T-TEST -- A statistical test to see whether there is a significant difference between two means or two proportions. The means of proportions may represent different groups under study or a sample and its population.
29. UNIVERSE POPULATION -- The entire set of persons from which a sample is to be drawn. The definition of the universe for a particular study is determined by clients and their needs. It may be as general as "all those living within the boundaries of the continental United States that are registered to vote," or as specific as "residents of Los Angeles County aged 35 and over that have savings accounts of \$5,000 or more at such-and-such savings and loan."
30. VALIDATION -- The process of insuring that interviews were actually completed and that correct information was received from each respondent. Usually 10-20% of the completed interviews from each study are called back by a supervisor to determine whether an interview was actually administered and whether the information collected is correct.
31. WATS LINE -- An acronym for the telephone company's Wide Area Telecommunications Service, which provides unlimited long-distance dialing for a set fee.
32. WEIGHTING -- An adjustment to bring survey demographics into closer agreement with those of the population under study. For example, should a survey sample contain too many elderly respondents when compared to the actual population, their number may be reduced by weighting while simultaneously increasing the number of younger respondents to bring the sample precisely in line with the population.

APPENDIX C

Research/Strategy/Management, Inc.
9344 Lanham-Severn Rd., #102
Lanham, MD 20706
December 1, 1995

TIME INTERVIEW STARTED: _____
TIME INTERVIEW ENDED : _____

Hello, I'm _____ from R/S/M, a national research firm. We're talking with people across the country today about some current issues and would like to have your opinions. Of course, all answers will be confidential.

A. Are you registered to vote? YES (ASK Q.1).....1
NO (ASK Q. B).....2

B. (IF "NO," IN Q.A, ASK:)

Is there anyone else in the household who is registered to vote?
(IF "NO," THANK AND TERMINATE)
(IF "YES," ASK:) May I speak with that person, please? (IF
AVAILABLE, REPEAT Q.A WITH NEW PERSON)

1. Generally speaking, do you believe things in the country are going in the right direction or have they gotten off on the wrong track?	RIGHT DIRECTION.....25%
	WRONG TRACK.....62
	DON'T KNOW/REFUSED.....13

5. Some people think the government is trying to do too many things with the economy that should be left to individuals and business. Others think that government should do more to solve our country's economic problems. Which comes closer to your own view?	GOV'T DOING TOO MANY THINGS.....57%
	GOV'T SHOULD DO MORE.....32
	DON'T KNOW/REFUSED.....11

6. Some people think the government should promote traditional values in our society. Others think the government should not favor any particular set of values. Which comes closer to your own view?	GOV'T SHOULD PROMOTE VALUES.....55%
	GOV'T SHOULD NOT FAVOR VALUES...38
	DON'T KNOW/REFUSED.....7

7. Some people think the government should take a more active role in promoting the interests of those who have been disadvantaged because of race, class, gender or other characteristics. Others think the government should take a less active role in promoting the interests of special groups at the expense of the rest of the people. Which comes closer to your own view?

GOV'T SHOULD DO MORE TO HELP
DISADVANTAGED.....34%
GOV'T SHOULD DO LESS FOR SPECIAL
GROUPS.....58
DON'T KNOW/REFUSED.....8

Now some questions just for statistical purposes.

77. Are you now serving or have you ever served in the military?
[IF NO, ASK:] Has any member of your immediate family, that is your spouse or children, ever served in the military?

RESPONDENT SERVED IN MILITARY....21%
FAMILY MEMBER SERVED.....31
NO MILITARY SERVICE IN FAMILY...47
DON'T KNOW/REFUSED.....1

78. In politics today, do you think of yourself as a Republican, a Democrat, an Independent, or something else?

(IF REPUBLICAN OR DEMOCRAT, ASK:) Would you call yourself a strong (Republican/Democrat) or a not-so-strong (Republican/Democrat)?

STRONG REPUBLICAN.....18%
NOT-SO-STRONG REPUBLICAN.....14

IF INDEPENDENT/NO PREFERENCE, ASK:) Do you think of yourself as closer to the Republican or to the Democratic Party?

INDEPENDENT/LEAN REPUBLICAN....10
INDEPENDENT.....9
INDEPENDENT/LEAN DEMOCRAT.....10
NOT-SO-STRONG DEMOCRAT.....14
STRONG DEMOCRAT.....16
DON'T KNOW/REFUSED.....7

79. What is the last year of school you have completed?

LESS THAN HIGH SCHOOL.....7%
HIGH SCHOOL GRADUATE.....33
SOME COLLEGE.....27
COLLEGE GRADUATE.....21
POST-GRADUATE.....11
REFUSED.....2

80. Is your racial or ethnic heritage (ROTATE) White, Afro-American, Hispanic, Oriental, or something else?	WHITE.....83% AFRO-AMERICAN/BLACK.....8 HISPANIC.....3 ORIENTAL.....1 OTHER.....3 REFUSED.....2
---	--

81. Which of these categories includes your total family income per year before taxes? Stop me when I read the correct one. (READ CATEGORIES)	UP TO \$10,000.....4% \$10,000 TO \$14,999.....7 \$15,000 TO \$19,999.....6 \$20,000 TO \$24,999.....8 \$25,000 TO \$29,999.....9 \$30,000 TO \$39,999.....15 \$40,000 TO \$49,999.....12 \$50,000 TO \$74,999.....16 \$75,000 AND OVER.....13 DON'T KNOW/REFUSED.....11
---	---

82. In politics today, do you consider yourself to be (ROTATE)...conservative or ... liberal? (WAIT FOR RESPONSE:) Would you say you are very (liberal/ conservative) or just somewhat so?	VERY CONSERVATIVE.....23% SOMEWHAT CONSERVATIVE.....38 MODERATE [DO NOT READ].....7 SOMEWHAT LIBERAL.....21 VERY LIBERAL.....5 DON'T KNOW/REFUSED.....6
--	--

88. What is your religious preference? (DO NOT READ CHOICES; IF PROTESTANT, ASK:) And what denomination would that be?	<u>CHRISTIAN (ASK Q89)</u> EPISCOPALIAN.....2% PRESBYTERIAN.....5 METHODIST.....10 LUTHERAN.....6 BAPTIST.....19 PENTECOSTAL.....1 CATHOLIC.....24 LATTER-DAY SAINT (LDS)/MORMON...2 UNITED CHURCH OF CHRIST.....1 CHURCH OF NAZERENE.....* ASSEMBLY OF GOD.....1 CHURCH OF GOD.....* MENNONITE CHURCHES/AMISH.....* OTHER CHRISTIAN.....11 <u>NON-CHRISTIAN (SKIP TO Q90)</u> JEWISH.....2 BUDDHIST.....* MUSLIM.....- OTHER NON-CHRISTIAN.....1 AGNOSTIC/ATHEIST.....1 NONE.....9 DON'T KNOW/REFUSED.....6
--	--

89. (IF CHRISTIAN, ASK:)	YES/FUNDAMENTALIST.....14%
Would you call yourself a	YES/EVANGELICAL.....12
born-again Christian?	YES/NEITHER.....9
	NO.....58
(IF YES, ASK:) Would you	DON'T KNOW.....4
describe yourself as a	REFUSED.....2
fundamentalist or	
evangelical Christian?	

90. Were any of your parents or	YES, ONE OR MORE BORN OUTSIDE
grandparents born outside of	OF U.S.....35%
the United States?	NO, ALL BORN IN U.S.....63
	DON'T KNOW.....2

91. What is your age, please?	18-24.....7%
	25-29.....8
	30-34.....8
	35-39.....12
	40-44.....12
	45-49.....12
	50-54.....8
	55-59.....7
	60-64.....7
	65-74.....13
	75 AND OVER.....5
	REFUSED.....2

92. May I have your ZIP Code please? _____

93. Sex (BY VOICE OBSERVATION)	MALE.....48%
	FEMALE.....52

94. STATE CODE FROM SAMPLE	NORTHEAST.....20%
	SOUTH.....35
	MIDWEST/CENTRAL.....24
	WEST/PACIFIC.....21

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Q.31. Which program do you think should receive the highest priority for funding in the Department of Energy's research and development budget?

	POLITICAL																									
	DIRECTION			CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT							
	[=====]			[=====]		[=====]		[=====]				[=====]			[=====]				[=====]							
	Rght Wrng			Dis-		Dis-		Very Smwht				Cnsrv Mod/L Cnsrv Mod/L														
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtst	
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%	
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	341	90	211	170	144	113	195	137	37	136	63	131	101	112	24	53	77	23	71	21	66	35	47	33	30	
	34%	36%	34%	35.5%	31.9%	32.6%	36.3%	31.9%	39%	33.2%	26.9%	34.9%	38.8%	32.3%	32.0%	28.5%	37.7%	27.1%	28.9%	33.9%	41.2%	33.7%	35.1%	38.4%	42.3%	
Nuclear Power	85	27	54	35	47	38	45	53	4	26	24	43	13	51	2	13	12	8	33	-	16	5	10	5	5	
	8.5%	11%	8.7%	7.3%	10.4%	11.0%	8.4%	12.3%	4.3%	6.3%	10.3%	11.5%	5.0%	14.7%	2.7%	7.0%	5.9%	9.4%	13.4%		10.0%	4.8%	7.5%	5.8%	7.0%	
Technologies to Improve Energy Efficiency and Conservation	210	57	122	113	87	64	120	85	18	94	46	72	59	62	21	40	49	18	49	18	33	27	28	17	10	
	21%	23%	20%	23.6%	19.2%	18.4%	22.3%	19.8%	19%	22.9%	19.7%	19.2%	22.7%	17.9%	28.0%	21.5%	24.0%	21.2%	19.9%	29.0%	20.6%	26.0%	20.9%	19.8%	14.1%	
Fossil Fuels such as Oil, Gasoline and Coal	86	23	56	37	43	31	43	30	6	45	24	34	21	23	7	29	16	10	20	3	6	7	21	8	7	
	8.6%	9.2%	9.0%	7.7%	9.5%	8.9%	8.0%	7.0%	6.4%	11.0%	10.3%	9.1%	8.1%	6.6%	9.3%	15.6%	7.8%	11.8%	8.1%	4.8%	3.8%	6.7%	15.7%	9.3%	9.9%	
Natural Gas	90	20	57	35	45	41	38	49	4	33	36	26	24	41	8	16	16	12	24	11	13	11	8	5	5	
	9.0%	8.0%	9.1%	7.3%	10.0%	11.8%	7.1%	11.4%	4.3%	8.0%	15.4%	6.9%	9.2%	11.8%	10.7%	8.6%	7.8%	14.1%	9.8%	17.7%	8.1%	10.6%	6.0%	5.8%	7.0%	
None of These	48	10	35	21	27	21	25	26	6	13	13	13	13	18	7	5	6	4	19	3	6	3	3	5	2	
	4.8%	4.0%	5.6%	4.4%	6.0%	6.1%	4.7%	6.0%	6.4%	3.2%	5.6%	3.5%	5.0%	5.2%	9.3%	2.7%	2.9%	4.7%	7.7%	4.8%	3.8%	2.9%	2.2%	5.8%	2.8%	
Don't Know / Refused	140	22	89	68	59	39	71	50	19	63	28	56	29	40	6	30	28	10	30	6	20	16	17	13	12	
	14%	8.8%	14%	14.2%	13.1%	11.2%	13.2%	11.6%	20%	15.4%	12.0%	14.9%	11.2%	11.5%	8.0%	16.1%	13.7%	11.8%	12.2%	9.7%	12.5%	15.4%	12.7%	15.1%	16.9%	

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Q.31. Which program do you think should receive the highest priority for funding in the Department of Energy's research and development budget?

DEMOGRAPHICS 1

	AGE				GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS			# U.S. ADMITS	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [====]	SmeMre Leglly	More More Ilgly	MreThn 800K	LssThn 800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	341	54	121	94	61	176	165	95	74	80	81	108	93	130	184	62	88	120	91	218	184	124
	34.1%	38.6%	37.6%	34.9%	24.8%	36.8%	31.6%	42.0%	30.8%	33.9%	29.5%	27.4%	34.8%	40.4%	40.7%	27.7%	29.8%	34.3%	36.0%	33.7%	34.9%	33.6%
Nuclear Power	85	9	24	27	25	58	27	23	35	10	17	32	26	27	38	16	31	33	20	59	52	26
	8.5%	6.4%	7.5%	10.0%	10.2%	12.1%	5.2%	10.2%	14.6%	4.2%	6.2%	8.1%	9.7%	8.4%	8.4%	7.1%	10.5%	9.4%	7.9%	9.1%	9.9%	7.0%
Technologies to Improve Energy Efficiency and Conservation	210	26	76	60	46	87	123	46	41	56	65	69	60	80	107	43	54	82	56	130	117	71
	21.0%	18.6%	23.6%	22.3%	18.7%	18.2%	23.6%	20.4%	17.1%	23.7%	23.6%	17.5%	22.5%	24.8%	23.7%	19.2%	18.3%	23.4%	22.1%	20.1%	22.2%	19.2%
Fossil Fuels such as Oil, Gasoline and Coal	86	13	24	20	25	44	42	19	24	18	21	40	28	18	28	15	39	31	20	60	44	36
	8.6%	9.3%	7.5%	7.4%	10.2%	9.2%	8.0%	8.4%	10.0%	7.6%	7.6%	10.2%	10.5%	5.6%	6.2%	6.7%	13.2%	8.9%	7.9%	9.3%	8.3%	9.8%
Natural Gas	90	12	26	26	26	45	45	21	24	17	28	47	20	22	28	26	36	29	25	61	43	42
	9.0%	8.6%	8.1%	9.7%	10.6%	9.4%	8.6%	9.3%	10.0%	7.2%	10.2%	11.9%	7.5%	6.8%	6.2%	11.6%	12.2%	8.3%	9.9%	9.4%	8.2%	11.4%
None of These	48	8	17	10	13	26	22	11	15	14	8	22	14	11	17	14	13	14	7	35	23	24
	4.8%	5.7%	5.3%	3.7%	5.3%	5.4%	4.2%	4.9%	6.2%	5.9%	2.9%	5.6%	5.2%	3.4%	3.8%	6.2%	4.4%	4.0%	2.8%	5.4%	4.4%	6.5%
Don't Know / Refused	140	18	34	32	50	42	98	11	27	41	55	76	26	34	50	48	34	41	34	83	64	46
	14.0%	12.9%	10.6%	11.9%	20.3%	8.8%	18.8%	4.9%	11.2%	17.4%	20.0%	19.3%	9.7%	10.6%	11.1%	21.4%	11.5%	11.7%	13.4%	12.8%	12.1%	12.5%

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Q.31. Which program do you think should receive the highest priority for funding in the Department of Energy's research and development budget?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
		Non-White		Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West / Pacific
	TOTAL	White	White																
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	341	291	40	65	127	115	161	177	78	53	58	71	61	72	175	71	97	91	82
	34.1%	34.9%	26.8%	26.6%	35.5%	40.2%	31.0%	37.3%	35.8%	27.7%	36.2%	29.8%	44.5%	25.4%	37.2%	35.0%	28.0%	37.6%	39.2%
Nuclear Power	85	77	8	16	31	26	50	35	23	17	15	18	10	27	43	21	28	21	15
	8.5%	9.2%	5.4%	6.6%	8.7%	9.1%	9.6%	7.4%	10.6%	8.9%	9.4%	7.6%	7.3%	9.5%	9.1%	10.3%	8.1%	8.7%	7.2%
Technologies to Improve Energy Efficiency and Conservation	210	169	37	43	72	70	105	104	49	38	26	53	32	57	98	46	69	48	47
	21.0%	20.3%	24.8%	17.6%	20.1%	24.5%	20.2%	21.9%	22.5%	19.9%	16.2%	22.3%	23.4%	20.1%	20.8%	22.7%	19.9%	19.8%	22.5%
Fossil Fuels such as Oil, Gasoline and Coal	86	70	16	28	33	17	50	36	18	21	16	24	5	34	37	19	24	24	19
	8.6%	8.4%	10.7%	11.5%	9.2%	5.9%	9.6%	7.6%	8.3%	11.0%	10.0%	10.1%	3.6%	12.0%	7.9%	9.4%	6.9%	9.9%	9.1%
Natural Gas	90	75	15	27	39	18	54	35	18	16	20	27	7	30	46	16	36	23	15
	9.0%	9.0%	10.1%	11.1%	10.9%	6.3%	10.4%	7.4%	8.3%	8.4%	12.5%	11.3%	5.1%	10.6%	9.8%	7.9%	10.4%	9.5%	7.2%
None of These	48	37	11	19	13	13	24	24	9	11	9	12	5	16	21	8	21	9	10
	4.8%	4.4%	7.4%	7.8%	3.6%	4.5%	4.6%	5.1%	4.1%	5.8%	5.6%	5.0%	3.6%	5.6%	4.5%	3.9%	6.1%	3.7%	4.8%
Don't Know / Refused	140	114	22	46	43	27	76	63	23	35	16	33	17	48	51	22	71	26	21
	14.0%	13.7%	14.8%	18.9%	12.0%	9.4%	14.6%	13.3%	10.6%	18.3%	10.0%	13.9%	12.4%	16.9%	10.8%	10.8%	20.5%	10.7%	10.0%

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Q.32. How important to you is this funding priority in deciding how you vote in Congressional elections?

	POLITICAL																									
	DIRECTION [=====] Rght Wrng			CLINTON [=====] Dis-		GINGRICH [=====] Dis-		PARTY ID [=====] Rpbld Ind Dmcr				IDEOLOGY [=====] Very Smwht			PARTY ID/IDEOLOGY [=====] Cnsrv Mod/L Cnsrv Mod/L				ROLE OF GOVERNMENT [=====]							
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbld	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbld	Rpbld	Dmcr	Dmcr	Mrlst	Cnsrv	Egltg	Lbrtn	Sttst	Pplst	Librl	Mtst	
TOTAL	812	217	500	390	366	287	441	354	69	334	193	306	218	289	62	151	170	71	197	53	134	85	114	68	57	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	27%	62%	48.0%	45.1%	35.3%	54.3%	43.6%	8.5%	41.1%	23.8%	37.7%	26.8%	35.6%	7.6%	18.6%	20.9%	8.7%	24.3%	6.5%	16.5%	10.5%	14.0%	8.4%	7.0%	
Much More Likely to Vote for Candidate who Shared My Priority	213	52	134	104	99	54	138	70	24	101	48	79	63	54	15	52	46	15	34	19	32	26	37	22	17	
	26%	24%	27%	26.7%	27.0%	18.8%	31.3%	19.8%	35%	30.2%	24.9%	25.8%	28.9%	18.7%	24.2%	34.4%	27.1%	21.1%	17.3%	35.8%	23.9%	30.6%	32.5%	32.4%	29.8%	
Somewhat More Likely to Vote for Candidate who Shared My Priority	267	69	166	124	120	93	141	129	22	104	56	103	77	101	26	41	62	30	66	20	45	23	32	19	24	
	33%	32%	33%	31.8%	32.8%	32.4%	32.0%	36.4%	32%	31.1%	29.0%	33.7%	35.3%	34.9%	41.9%	27.2%	36.5%	42.3%	33.5%	37.7%	33.6%	27.1%	28.1%	27.9%	42.1%	
Would Not Matter One Way or the Other	314	93	190	154	141	136	152	148	22	121	86	117	73	129	19	55	59	25	93	13	56	34	43	27	15	
	39%	43%	38%	39.5%	38.5%	47.4%	34.5%	41.8%	32%	36.2%	44.6%	38.2%	33.5%	44.6%	30.6%	36.4%	34.7%	35.2%	47.2%	24.5%	41.8%	40.0%	37.7%	39.7%	26.3%	
Don't Know / Refused	18	3	10	8	6	4	10	7	1	8	3	7	5	5	2	3	3	1	4	1	1	2	2	-	1	
	2.2%	1.4%	2.0%	2.1%	1.6%	1.4%	2.3%	2.0%	1.4%	2.4%	1.6%	2.3%	2.3%	1.7%	3.2%	2.0%	1.8%	1.4%	2.0%	1.9%	0.7%	2.4%	1.8%		1.8%	

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Q.32. How important to you is this funding priority in deciding how you vote in Congressional elections?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS		# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			GP/PTS	SmeMre	More	MreThn	LssThn
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	[=====]	Leglly	Illygly	800K	800K
TOTAL	812	114	271	227	183	410	402	204	198	181	212	296	227	277	385	162	248	295	212	528	440	299
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	33.4%	28.0%	22.5%	50.5%	49.5%	25.1%	24.4%	22.3%	26.1%	36.5%	28.0%	34.1%	47.4%	20.0%	30.5%	36.3%	26.1%	65.0%	54.2%	36.8%
Much More Likely to Vote for Candidate who Shared My Priority	213	27	72	55	52	110	103	51	56	48	51	80	71	60	101	38	71	74	64	129	107	89
	26.2%	23.7%	26.6%	24.2%	28.4%	26.8%	25.6%	25.0%	28.3%	26.5%	24.1%	27.0%	31.3%	21.7%	26.2%	23.5%	28.6%	25.1%	30.2%	24.4%	24.3%	29.8%
Somewhat More Likely to Vote for Candidate who Shared My Priority	267	37	89	86	50	132	135	70	60	56	76	94	65	105	144	51	65	111	62	181	145	97
	32.9%	32.5%	32.8%	37.9%	27.3%	32.2%	33.6%	34.3%	30.3%	30.9%	35.8%	31.8%	28.6%	37.9%	37.4%	31.5%	26.2%	37.6%	29.2%	34.3%	33.0%	32.4%
Would Not Matter One Way or the Other	314	48	106	83	73	158	156	80	76	74	80	116	85	107	131	71	106	106	82	207	178	111
	38.7%	42.1%	39.1%	36.6%	39.9%	38.5%	38.8%	39.2%	38.4%	40.9%	37.7%	39.2%	37.4%	38.6%	34.0%	43.8%	42.7%	35.9%	38.7%	39.2%	40.5%	37.1%
Don't Know / Refused	18	2	4	3	8	10	8	3	6	3	5	6	6	5	9	2	6	4	4	11	10	2
	2.2%	1.8%	1.5%	1.3%	4.4%	2.4%	2.0%	1.5%	3.0%	1.7%	2.4%	2.0%	2.6%	1.8%	2.3%	1.2%	2.4%	1.4%	1.9%	2.1%	2.3%	0.7%

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Q.32. How important to you is this funding priority in deciding how you vote in Congressional elections?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION				BORN AGAIN		REGION				
	[=====]			[=====]			[=====]		[=====]				[=====]		[=====]				
		Non-White		Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwest /Cntrl	West / Pacific
	TOTAL	White	White	\$25000															
TOTAL	812	682	116	179	302	246	420	387	186	145	135	193	115	220	399	173	254	207	178
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	84.0%	14.3%	22.0%	37.2%	30.3%	51.7%	47.7%	22.9%	17.9%	16.6%	23.8%	14.2%	27.1%	49.1%	21.3%	31.3%	25.5%	21.9%
Much More Likely to Vote for Candidate who Shared My Priority	213	175	34	51	91	52	121	92	39	45	35	51	32	54	105	51	66	41	55
	26.2%	25.7%	29.3%	28.5%	30.1%	21.1%	28.8%	23.8%	21.0%	31.0%	25.9%	26.4%	27.8%	24.5%	26.3%	29.5%	26.0%	19.8%	30.9%
Somewhat More Likely to Vote for Candidate who Shared My Priority	267	232	30	51	99	91	133	133	67	37	40	72	36	72	133	59	69	89	50
	32.9%	34.0%	25.9%	28.5%	32.8%	37.0%	31.7%	34.4%	36.0%	25.5%	29.6%	37.3%	31.3%	32.7%	33.3%	34.1%	27.2%	43.0%	28.1%
Would Not Matter One Way or the Other	314	263	47	72	107	99	159	152	75	58	57	67	46	91	150	61	108	76	69
	38.7%	38.6%	40.5%	40.2%	35.4%	40.2%	37.9%	39.3%	40.3%	40.0%	42.2%	34.7%	40.0%	41.4%	37.6%	35.3%	42.5%	36.7%	38.8%
Don't Know / Refused	18	12	5	5	5	4	7	10	5	5	3	3	1	3	11	2	11	1	4
	2.2%	1.8%	4.3%	2.8%	1.7%	1.6%	1.7%	2.6%	2.7%	3.4%	2.2%	1.6%	0.9%	1.4%	2.8%	1.2%	4.3%	0.5%	2.2%

NATIONAL MONITOR XIII

Q.32a. How important to you is giving highest priority to funding renewable energy research and development in deciding how you vote in Congressional elections?

	POLITICAL																									
	DIRECTION		CLINTON		GINGRICH		PARTY ID			IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT									
	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]
	Rght Wrng	Dis-	Dis-							Vry	Smwht		Cnsrv Mod/L	Cnsrv Mod/L												
TOTL	Trck Trck	Apprv Apprv	Apprv Apprv	Rpbld Ind	Dmcr	Cnsrv Cnsrv	Librl	Rpbld Rpbld	Dmcr Dmcr	Mrlst Cnsrv	Egltg Lbrtn	Sttst Pplst	Librl Mtlst													
RENEWABLE ENERGY	341 100% 100%	90 100% 26%	211 100% 62%	170 100% 49.9%	144 100% 42.2%	113 100% 33.1%	195 100% 57.2%	137 100% 40.2%	37 100% 11%	136 100% 39.9%	63 100% 18.5%	131 100% 38.4%	101 100% 29.6%	112 100% 32.8%	24 100% 7.0%	53 100% 15.5%	77 100% 22.6%	23 100% 6.7%	71 100% 20.8%	21 100% 6.2%	66 100% 19.4%	35 100% 10.3%	47 100% 13.8%	33 100% 9.7%	30 100% 8.8%	
Much More Likely to Vote for Candidate who Shared My Priority	94 28%	26 29%	56 27%	48 28.2%	42 29.2%	23 20.4%	64 32.8%	26 19.0%	17 46%	41 30.1%	13 20.6%	35 26.7%	33 32.7%	18 16.1%	7 29.2%	17 32.1%	23 29.9%	5 21.7%	15 21.1%	9 42.9%	12 18.2%	11 31.4%	15 31.9%	9 27.3%	12 40.0%	
Somewhat More Likely to Vote for Candidate who Shared My Priority	120 35%	33 37%	71 34%	57 33.5%	52 36.1%	39 34.5%	71 36.4%	54 39.4%	12 32%	48 35.3%	21 33.3%	52 39.7%	36 35.6%	47 42.0%	7 29.2%	18 34.0%	29 37.7%	6 26.1%	24 33.8%	9 42.9%	26 39.4%	11 31.4%	16 34.0%	12 36.4%	12 40.0%	
Would Not Matter One Way or the Other	116 34%	30 33%	77 36%	61 35.9%	46 31.9%	49 43.4%	53 27.2%	52 38.0%	8 22%	42 30.9%	28 44.4%	39 29.8%	29 28.7%	44 39.3%	8 33.3%	15 28.3%	24 31.2%	11 47.8%	30 42.3%	3 14.3%	27 40.9%	13 37.1%	14 29.8%	12 36.4%	5 16.7%	
Don't Know / Refused who Shared My Priority	11 3.2%	1 1.1%	7 3.3%	4 2.4%	4 2.8%	2 1.8%	7 3.6%	5 3.6%	-	5 3%	1 40.0%	5	3	3	2	3	1	1	2	-	1	-	2	-	1	

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Q.32a. How important to you is giving highest priority to funding renewable energy research and development in deciding how you vote in Congressional elections?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS		# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			GP/PTS	[=====]	[=====]	800K	800K
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	[=====]	Leglly	Illgly	800K	800K
RENEWABLE ENERGY	341	54	121	94	61	176	165	95	74	80	81	108	93	130	184	62	88	120	91	218	184	124
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	15.8%	35.5%	27.6%	17.9%	51.6%	48.4%	27.9%	21.7%	23.5%	23.8%	31.7%	27.3%	38.1%	54.0%	18.2%	25.8%	35.2%	26.7%	63.9%	54.0%	36.4%
Much More Likely to Vote for Candidate who Shared My Priority	94	11	38	27	14	50	44	25	23	24	18	29	32	31	53	14	26	35	32	54	48	40
	27.6%	20.4%	31.4%	28.7%	23.0%	28.4%	26.7%	26.3%	31.1%	30.0%	22.2%	26.9%	34.4%	23.8%	28.8%	22.6%	29.5%	29.2%	35.2%	24.8%	26.1%	32.3%
Somewhat More Likely to Vote for Candidate who Shared My Priority	120	17	40	39	21	68	52	38	28	19	32	37	27	54	72	24	22	48	30	77	61	49
	35.2%	31.5%	33.1%	41.5%	34.4%	38.6%	31.5%	40.0%	37.8%	23.8%	39.5%	34.3%	29.0%	41.5%	39.1%	38.7%	25.0%	40.0%	33.0%	35.3%	33.2%	39.5%
Would Not Matter One Way or the Other	116	25	39	27	22	51	65	29	20	35	29	38	32	41	54	24	35	34	25	80	69	34
	34.0%	46.3%	32.2%	28.7%	36.1%	29.0%	39.4%	30.5%	27.0%	43.8%	35.8%	35.2%	34.4%	31.5%	29.3%	38.7%	39.8%	28.3%	27.5%	36.7%	37.5%	27.4%
Don't Know / Refused	11	1	4	1	4	7	4	3	3	2	2	4	2	4	5	-	5	3	4	7	6	1
	3.2%	1.9%	3.3%	1.1%	6.6%	4.0%	2.4%	3.2%	4.1%	2.5%	2.5%	3.7%	2.2%	3.1%	2.7%		5.7%	2.5%	4.4%	3.2%	3.3%	0.8%

NATIONAL MONITOR XIII

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Q.32a. How important to you is giving highest priority to funding renewable energy research and development in deciding how you vote in Congressional elections?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION				BORN AGAIN		REGION				
	[=====]			[=====]			[=====]		[=====]				[=====]		[=====]				
		Non-White		Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwest /Cntrl	West / Pacific
	TOTAL	White																	
RENEWABLE ENERGY	341	291	40	65	127	115	161	177	78	53	58	71	61	72	175	71	97	91	82
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	85.3%	11.7%	19.1%	37.2%	33.7%	47.2%	51.9%	22.9%	15.5%	17.0%	20.8%	17.9%	21.1%	51.3%	20.8%	28.4%	26.7%	24.0%
Much More Likely to Vote for Candidate who Shared My Priority	94	80	12	17	46	25	47	47	18	16	18	23	16	18	55	24	23	17	30
	27.6%	27.5%	30.0%	26.2%	36.2%	21.7%	29.2%	26.6%	23.1%	30.2%	31.0%	32.4%	26.2%	25.0%	31.4%	33.8%	23.7%	18.7%	36.6%
Somewhat More Likely to Vote for Candidate who Shared My Priority	120	108	9	17	38	51	56	64	27	14	20	26	24	26	58	23	31	42	24
	35.2%	37.1%	22.5%	26.2%	29.9%	44.3%	34.8%	36.2%	34.6%	26.4%	34.5%	36.6%	39.3%	36.1%	33.1%	32.4%	32.0%	46.2%	29.3%
Would Not Matter One Way or the Other	116	95	17	28	40	36	54	60	30	21	18	19	21	27	54	22	37	32	25
	34.0%	32.6%	42.5%	43.1%	31.5%	31.3%	33.5%	33.9%	38.5%	39.6%	31.0%	26.8%	34.4%	37.5%	30.9%	31.0%	38.1%	35.2%	30.5%
Don't Know / Refused	11	8	2	3	3	3	4	6	3	2	2	3	-	1	8	2	6	-	3
	3.2%	2.7%	5.0%	4.6%	2.4%	2.6%	2.5%	3.4%	3.8%	3.8%	3.4%	4.2%		1.4%	4.6%	2.8%	6.2%		3.7%

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Q.32b. How important to you is giving highest priority to funding technologies to improve energy efficiencies research and development in deciding how you vote in Congressional elections?

	POLITICAL																									
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT								
	[=====]		[=====]		[=====]		[=====]				[=====]			[=====]				[=====]								
	Rght	Wrng	Dis-		Dis-						Very	Smwht		Cnsrv	Mod/L	Cnsrv	Mod/L									
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtst	
TECHNOLOGIES	210	57	122	113	87	64	120	85	18	94	46	72	59	62	21	40	49	18	49	18	33	27	28	17	10	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	27%	58%	53.8%	41.4%	30.5%	57.1%	40.5%	8.6%	44.8%	21.9%	34.3%	28.1%	29.5%	10.0%	19.0%	23.3%	8.6%	23.3%	8.6%	15.7%	12.9%	13.3%	8.1%	4.8%	
Much More Likely to Vote for Candidate who Shared My Priority	60	12	41	33	24	12	42	23	4	29	16	20	18	19	4	13	15	6	7	8	11	11	7	5	3	
	29%	21%	34%	29.2%	27.6%	18.8%	35.0%	27.1%	22%	30.9%	34.8%	27.8%	30.5%	30.6%	19.0%	32.5%	30.6%	33.3%	14.3%	44.4%	33.3%	40.7%	25.0%	29.4%	30.0%	
Somewhat More Likely to Vote for Candidate who Shared My Priority	75	19	43	39	31	26	36	34	6	31	17	20	22	20	12	11	20	9	19	5	13	7	8	6	5	
	36%	33%	35%	34.5%	35.6%	40.6%	30.0%	40.0%	33%	33.0%	37.0%	27.8%	37.3%	32.3%	57.1%	27.5%	40.8%	50.0%	38.8%	27.8%	39.4%	25.9%	28.6%	35.3%	50.0%	
Would Not Matter One Way or the Other	72	24	37	38	32	26	39	28	8	32	13	31	18	23	5	16	13	3	23	5	9	8	13	6	2	
	34%	42%	30%	33.6%	36.8%	40.6%	32.5%	32.9%	44%	34.0%	28.3%	43.1%	30.5%	37.1%	23.8%	40.0%	26.5%	16.7%	46.9%	27.8%	27.3%	29.6%	46.4%	35.3%	20.0%	
Don't Know / Refused	3	2	1	3	-	-	3	-	-	2	-	1	1	-	-	-	1	-	-	-	-	1	-	-	-	
	1.4%	3.5%	0.8%	2.7%			2.5%			2.1%		1.4%	1.7%				2.0%					3.7%				

Research / Strategy / Management

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Q.32b. How important to you is giving highest priority to funding technologies to improve energy efficiencies research and development in deciding how you vote in Congressional elections?

DEMOGRAPHICS 1

	AGE [=====]					GENDER [=====]		AGE / GENDER [=====]				EDUCATION [=====]			IMMIGRATION [=====]			FOREIGN BORN	WHO ENTERS [=====]		# U.S. ADMITS [=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [=====]	SmeMre Leglly	More Illgly	MreThn 800K	LssThn 800K
TECHNOLOGIES	210 100% 100%	26 100% 12.4%	76 100% 36.2%	60 100% 28.6%	46 100% 21.9%	87 100% 41.4%	123 100% 58.6%	46 100.0% 21.9%	41 100.0% 19.5%	56 100.0% 26.7%	65 100.0% 31.0%	69 100.0% 32.9%	60 100.0% 28.6%	80 100.0% 38.1%	107 100.0% 51.0%	43 100.0% 20.5%	54 100.0% 25.7%	82 100.0% 39.0%	56 100.0% 26.7%	130 100.0% 61.9%	117 100.0% 55.7%	71 100.0% 33.8%
Much More Likely to Vote for Candidate who Shared My Priority	60 28.6%	9 34.6%	20 26.3%	14 23.3%	16 34.8%	28 32.2%	32 26.0%	15 32.6%	13 31.7%	14 25.0%	17 26.2%	19 27.5%	19 31.7%	22 27.5%	31 29.0%	11 25.6%	18 33.3%	20 24.4%	17 30.4%	35 26.9%	28 23.9%	24 33.8%
Somewhat More Likely to Vote for Candidate who Shared My Priority	75 35.7%	7 26.9%	29 38.2%	26 43.3%	12 26.1%	26 29.9%	49 39.8%	15 32.6%	11 26.8%	21 37.5%	27 41.5%	23 33.3%	20 33.3%	31 38.8%	37 34.6%	14 32.6%	20 37.0%	33 40.2%	16 28.6%	52 40.0%	43 36.8%	21 29.6%
Would Not Matter One Way or the Other	72 34.3%	10 38.5%	27 35.5%	20 33.3%	15 32.6%	32 36.8%	40 32.5%	16 34.8%	16 39.0%	21 37.5%	19 29.2%	25 36.2%	20 33.3%	27 33.8%	37 34.6%	17 39.5%	16 29.6%	28 34.1%	23 41.1%	41 31.5%	43 36.8%	26 36.6%
Don't Know / Refused	3 1.4%	-	-	-	3 6.5%	1 1.1%	2 1.6%	-	1 2.4%	-	2 3.1%	2 2.9%	1 1.7%	-	2 1.9%	1 2.3%	-	1 1.2%	-	2 1.5%	3 2.6%	-

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Q.32b. How important to you is giving highest priority to funding technologies to improve energy efficiencies research and development in deciding how you vote in Congressional elections?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	TOTAL	White	Non-White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwest /Cntrl	West / Pacific
TECHNOLOGIES	210	169	37	43	72	70	105	104	49	38	26	53	32	57	98	46	69	48	47
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	80.5%	17.6%	20.5%	34.3%	33.3%	50.0%	49.5%	23.3%	18.1%	12.4%	25.2%	15.2%	27.1%	46.7%	21.9%	32.9%	22.9%	22.4%
Much More Likely to Vote for Candidate who Shared My Priority	60	45	13	15	24	16	35	25	10	13	7	13	11	12	27	16	23	7	14
	28.6%	26.6%	35.1%	34.9%	33.3%	22.9%	33.3%	24.0%	20.4%	34.2%	26.9%	24.5%	34.4%	21.1%	27.6%	34.8%	33.3%	14.6%	29.8%
Somewhat More Likely to Vote for Candidate who Shared My Priority	75	60	13	15	29	25	35	39	20	13	7	21	9	21	36	21	18	24	12
	35.7%	35.5%	35.1%	34.9%	40.3%	35.7%	33.3%	37.5%	40.8%	34.2%	26.9%	39.6%	28.1%	36.8%	36.7%	45.7%	26.1%	50.0%	25.5%
Would Not Matter One Way or the Other	72	63	9	13	18	29	34	38	19	11	11	19	11	23	34	9	27	16	20
	34.3%	37.3%	24.3%	30.2%	25.0%	41.4%	32.4%	36.5%	38.8%	28.9%	42.3%	35.8%	34.4%	40.4%	34.7%	19.6%	39.1%	33.3%	42.6%
Don't Know / Refused	3	1	2	-	1	-	1	2	-	1	1	-	1	1	1	-	1	1	1
	1.4%	0.6%	5.4%	-	1.4%	-	1.0%	1.9%	-	2.6%	3.8%	-	3.1%	1.8%	1.0%	-	1.4%	2.1%	2.1%

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Q.33. Which program do you think should be subject to funding cuts first in the Department of Energy's research and development budget?

POLITICAL

	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT									
	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	
	Rght	Wrng		Dis-		Dis-					Very	Smdht		Cnsrv	Mod/L	Cnsrv	Mod/L										
TOTAL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtst			
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71		
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%		
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	135	40	82	48	77	59	60	75	14	42	39	62	23	64	9	24	15	9	43	11	23	12	16	7	11		
	14%	16%	13%	10.0%	17.0%	17.0%	11.2%	17.4%	15%	10.2%	16.7%	16.5%	8.8%	18.4%	12.0%	12.9%	7.4%	10.6%	17.5%	17.7%	14.4%	11.5%	11.9%	8.1%	15.5%		
Nuclear Power	305	66	200	153	129	86	187	114	28	143	63	119	96	92	21	64	76	27	70	16	43	39	41	31	24		
	30%	27%	32%	31.9%	28.5%	24.8%	34.8%	26.5%	30%	34.9%	26.9%	31.7%	36.9%	26.5%	28.0%	34.4%	37.3%	31.8%	28.5%	25.8%	26.9%	37.5%	30.6%	36.0%	33.8%		
Technologies to Improve Energy Efficiency and Conservation	41	14	25	14	25	22	17	23	2	14	14	15	7	18	5	9	4	3	11	2	9	6	5	4	1		
	4.1%	5.6%	4.0%	2.9%	5.5%	6.3%	3.2%	5.3%	2.1%	3.4%	6.0%	4.0%	2.7%	5.2%	6.7%	4.8%	2.0%	3.5%	4.5%	3.2%	5.6%	5.8%	3.7%	4.7%	1.4%		
Fossil Fuels such as Oil, Gasoline and Coal	203	63	118	102	93	82	103	91	19	77	48	59	65	72	19	22	52	14	43	15	44	17	30	19	14		
	20%	25%	19%	21.3%	20.6%	23.6%	19.2%	21.2%	20%	18.8%	20.5%	15.7%	25.0%	20.7%	25.3%	11.8%	25.5%	16.5%	17.5%	24.2%	27.5%	16.3%	22.4%	22.1%	19.7%		
Natural Gas	49	13	32	30	17	12	30	13	5	26	8	20	14	12	1	14	10	7	10	5	7	4	6	4	4		
	4.9%	5.2%	5.1%	6.3%	3.8%	3.5%	5.6%	3.0%	5.3%	6.3%	3.4%	5.3%	5.4%	3.5%	1.3%	7.5%	4.9%	8.2%	4.1%	8.1%	4.4%	3.8%	4.5%	4.7%	5.6%		
None of These	62	19	39	37	23	21	37	25	7	26	16	22	16	19	5	14	12	6	13	4	10	5	9	6	6		
	6.2%	7.6%	6.2%	7.7%	5.1%	6.1%	6.9%	5.8%	7.4%	6.3%	6.8%	5.9%	6.2%	5.5%	6.7%	7.5%	5.9%	7.1%	5.3%	6.5%	6.2%	4.8%	6.7%	7.0%	8.5%		
Don't Know / Refused	205	34	128	95	88	65	103	89	19	82	46	78	39	70	15	39	35	19	56	9	24	21	27	15	11		
	20%	14%	21%	19.8%	19.5%	18.7%	19.2%	20.7%	20%	20.0%	19.7%	20.8%	15.0%	20.2%	20.0%	21.0%	17.2%	22.4%	22.8%	14.5%	15.0%	20.2%	20.1%	17.4%	15.5%		

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Q.33. Which program do you think should be subject to funding cuts first in the Department of Energy's research and development budget?

DEMOGRAPHICS 1

	AGE				GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREGN	WHO ENTERS	# U.S. ADMITS			
	[=====]				[=====]		[=====]				[=====]			[=====]			BORN	[=====]	[=====]			
																	GP/PTS	Smr	Mr	More	Mr	Lss
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	Male	Male	Female	Female	H.S.	Some	Collge	Collge	Good	Can't	Bad	[=====]	Leglly	Illgly	800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	135	19	36	44	36	61	74	23	38	32	42	51	42	41	59	26	49	43	36	93	73	53
	13.5%	13.6%	11.2%	16.4%	14.6%	12.8%	14.2%	10.2%	15.8%	13.6%	15.3%	12.9%	15.7%	12.7%	13.1%	11.6%	16.6%	12.3%	14.2%	14.4%	13.9%	14.4%
Nuclear Power	305	46	111	87	56	142	163	73	66	84	77	119	83	100	143	65	92	117	76	198	159	121
	30.5%	32.9%	34.5%	32.3%	22.8%	29.7%	31.2%	32.3%	27.5%	35.6%	28.0%	30.2%	31.1%	31.1%	31.6%	29.0%	31.2%	33.4%	30.0%	30.7%	30.2%	32.8%
Technologies to Improve Energy Efficiency and Conservation	41	3	13	8	16	17	24	5	12	11	12	14	15	11	18	9	12	15	6	31	22	18
	4.1%	2.1%	4.0%	3.0%	6.5%	3.6%	4.6%	2.2%	5.0%	4.7%	4.4%	3.6%	5.6%	3.4%	4.0%	4.0%	4.1%	4.3%	2.4%	4.8%	4.2%	4.9%
Fossil Fuels such as Oil, Gasoline and Coal	203	33	83	55	25	135	68	75	55	41	25	57	55	88	120	35	45	74	51	134	112	76
	20.3%	23.6%	25.8%	20.4%	10.2%	28.2%	13.0%	33.2%	22.9%	17.4%	9.1%	14.5%	20.6%	27.3%	26.5%	15.6%	15.3%	21.1%	20.2%	20.7%	21.3%	20.6%
Natural Gas	49	6	16	10	15	22	27	10	11	12	14	20	10	17	18	11	19	16	19	24	33	13
	4.9%	4.3%	5.0%	3.7%	6.1%	4.6%	5.2%	4.4%	4.6%	5.1%	5.1%	5.1%	3.7%	5.3%	4.0%	4.9%	6.4%	4.6%	7.5%	3.7%	6.3%	3.5%
None of These	62	5	18	21	16	32	30	13	18	10	19	25	14	21	20	11	30	15	21	37	29	27
	6.2%	3.6%	5.6%	7.8%	6.5%	6.7%	5.7%	5.8%	7.5%	4.2%	6.9%	6.3%	5.2%	6.5%	4.4%	4.9%	10.2%	4.3%	8.3%	5.7%	5.5%	7.3%
Don't Know / Refused	205	28	45	44	82	69	136	27	40	46	86	108	48	44	74	67	48	70	44	129	99	61
	20.5%	20.0%	14.0%	16.4%	33.3%	14.4%	26.1%	11.9%	16.7%	19.5%	31.3%	27.4%	18.0%	13.7%	16.4%	29.9%	16.3%	20.0%	17.4%	20.0%	18.8%	16.5%

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Q.33. Which program do you think should be subject to funding cuts first in the Department of Energy's research and development budget?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION				BORN AGAIN		REGION				
	[=====]			[=====]			[=====]		[=====]				[=====]		[=====]				
		Non-		Under	\$25000	\$50000			High		Other		N-Chrs			North-		Midwst	West /
	TOTAL	White	White	\$25000	-49999	& Over	Yes	No	Prtstn	Baptst	Prtstn	Cathlc	/ None	Yes	No	East	South	/Cntrl	Pacfc
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	135	124	10	27	53	39	77	58	39	29	20	28	14	46	65	28	46	30	31
	13.5%	14.9%	6.7%	11.1%	14.8%	13.6%	14.8%	12.2%	17.9%	15.2%	12.5%	11.8%	10.2%	16.2%	13.8%	13.8%	13.3%	12.4%	14.8%
Nuclear Power	305	244	58	74	119	87	146	159	60	59	51	81	42	92	149	72	87	79	67
	30.5%	29.3%	38.9%	30.3%	33.2%	30.4%	28.1%	33.5%	27.5%	30.9%	31.9%	34.0%	30.7%	32.4%	31.6%	35.5%	25.1%	32.6%	32.1%
Technologies to Improve Energy Efficiency and Conservation	41	36	4	11	17	9	22	19	12	6	6	10	6	12	16	8	13	15	5
	4.1%	4.3%	2.7%	4.5%	4.7%	3.1%	4.2%	4.0%	5.5%	3.1%	3.8%	4.2%	4.4%	4.2%	3.4%	3.9%	3.8%	6.2%	2.4%
Fossil Fuels such as Oil, Gasoline and Coal	203	172	26	28	74	85	95	106	39	27	40	49	36	40	107	36	67	51	49
	20.3%	20.6%	17.4%	11.5%	20.7%	29.7%	18.3%	22.4%	17.9%	14.1%	25.0%	20.6%	26.3%	14.1%	22.7%	17.7%	19.4%	21.1%	23.4%
Natural Gas	49	37	11	20	13	9	24	25	14	12	2	13	5	13	25	16	14	12	7
	4.9%	4.4%	7.4%	8.2%	3.6%	3.1%	4.6%	5.3%	6.4%	6.3%	1.2%	5.5%	3.6%	4.6%	5.3%	7.9%	4.0%	5.0%	3.3%
None of These	62	47	14	8	26	18	35	25	18	14	7	9	9	16	25	12	26	8	16
	6.2%	5.6%	9.4%	3.3%	7.3%	6.3%	6.7%	5.3%	8.3%	7.3%	4.4%	3.8%	6.6%	5.6%	5.3%	5.9%	7.5%	3.3%	7.7%
Don't Know / Refused	205	173	26	76	56	39	121	82	36	44	34	48	25	65	84	31	93	47	34
	20.5%	20.8%	17.4%	31.1%	15.6%	13.6%	23.3%	17.3%	16.5%	23.0%	21.2%	20.2%	18.2%	22.9%	17.8%	15.3%	26.9%	19.4%	16.3%

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Q.34. How important to you is this spending cut priority in deciding how you vote in Congressional elections?

	POLITICAL																								
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT							
	[=====]		[=====]		[=====]		[=====]				[=====]			[=====]				[=====]							
	Right	Wrng		Dis-		Dis-					Very	Smhwt		Cnsrv	Mod/L	Cnsrv	Mod/L								
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtst
TOTAL	733	196	457	347	341	261	397	316	68	302	172	275	205	258	55	133	157	60	177	49	126	78	98	65	54
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	100%	27%	62%	47.3%	46.5%	35.6%	54.2%	43.1%	9.3%	41.2%	23.5%	37.5%	28.0%	35.2%	7.5%	18.1%	21.4%	8.2%	24.1%	6.7%	17.2%	10.6%	13.4%	8.9%	7.4%
Much More Likely to Vote for Candidate who Shared My Priority	132	30	86	63	64	37	84	41	15	66	29	50	42	29	12	35	30	9	18	9	18	16	27	12	17
	18%	15%	19%	18.2%	18.8%	14.2%	21.2%	13.0%	22%	21.9%	16.9%	18.2%	20.5%	11.2%	21.8%	26.3%	19.1%	15.0%	10.2%	18.4%	14.3%	20.5%	27.6%	18.5%	31.5%
Somewhat More Likely to Vote for Candidate who Shared My Priority	262	67	168	123	123	84	147	124	21	102	54	100	79	97	26	42	57	23	56	24	40	28	35	25	23
	36%	34%	37%	35.4%	36.1%	32.2%	37.0%	39.2%	31%	33.8%	31.4%	36.4%	38.5%	37.6%	47.3%	31.6%	36.3%	38.3%	31.6%	49.0%	31.7%	35.9%	35.7%	38.5%	42.6%
Would Not Matter One Way or the Other	319	96	190	153	144	133	154	144	31	125	84	118	77	126	16	53	64	27	97	15	64	32	36	26	14
	44%	49%	42%	44.1%	42.2%	51.0%	38.8%	45.6%	46%	41.4%	48.8%	42.9%	37.6%	48.8%	29.1%	39.8%	40.8%	45.0%	54.8%	30.6%	50.8%	41.0%	36.7%	40.0%	25.9%
Don't Know / Refused	20	3	13	8	10	7	12	7	1	9	5	7	7	6	1	3	6	1	6	1	4	2	-	2	-
	2.7%	1.5%	2.8%	2.3%	2.9%	2.7%	3.0%	2.2%	1.5%	3.0%	2.9%	2.5%	3.4%	2.3%	1.8%	2.3%	3.8%	1.7%	3.4%	2.0%	3.2%	2.6%	-	3.1%	-

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Q.34. How important to you is this spending cut priority in deciding how you vote in Congressional elections?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS		# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			BORN	[=====]		[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [====]	SmrMore Leglly	MrMore Ilgly	MrThn 800K	LssThn 800K
TOTAL	733	107	259	204	148	377	356	186	182	180	170	261	205	257	358	146	217	265	188	480	399	281
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.6%	35.3%	27.8%	20.2%	51.4%	48.6%	25.4%	24.8%	24.6%	23.2%	35.6%	28.0%	35.1%	48.8%	19.9%	29.6%	36.2%	25.6%	65.5%	54.4%	38.3%
Much More Likely to Vote for Candidate who Shared My Priority	132	18	46	38	27	70	62	32	36	32	29	54	41	33	62	23	44	53	34	85	68	59
	18.0%	16.8%	17.8%	18.6%	18.2%	18.6%	17.4%	17.2%	19.8%	17.8%	17.1%	20.7%	20.0%	12.8%	17.3%	15.8%	20.3%	20.0%	18.1%	17.7%	17.0%	21.0%
Somewhat More Likely to Vote for Candidate who Shared My Priority	262	34	97	74	50	130	132	71	56	60	68	93	68	100	138	43	78	102	69	181	141	108
	35.7%	31.8%	37.5%	36.3%	33.8%	34.5%	37.1%	38.2%	30.8%	33.3%	40.0%	35.6%	33.2%	38.9%	38.5%	29.5%	35.9%	38.5%	36.7%	37.7%	35.3%	38.4%
Would Not Matter One Way or the Other	319	50	112	87	66	168	151	79	86	83	67	108	92	115	148	76	89	103	79	204	179	110
	43.5%	46.7%	43.2%	42.6%	44.6%	44.6%	42.4%	42.5%	47.3%	46.1%	39.4%	41.4%	44.9%	44.7%	41.3%	52.1%	41.0%	38.9%	42.0%	42.5%	44.9%	39.1%
Don't Know / Refused	20	5	4	5	5	9	11	4	4	5	6	6	4	9	10	4	6	7	6	10	11	4
	2.7%	4.7%	1.5%	2.5%	3.4%	2.4%	3.1%	2.2%	2.2%	2.8%	3.5%	2.3%	2.0%	3.5%	2.8%	2.7%	2.8%	2.6%	3.2%	2.1%	2.8%	1.4%

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Q.34. How important to you is this spending cut priority in deciding how you vote in Congressional elections?

DEMOGRAPHICS 2

	INCOME						MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION				
	ETHNICITY			[=====]			[=====]		[=====]					[=====]		[=====]				
	TOTAL	White	Non-White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West / Pacific	
TOTAL	733	613	109	160	276	229	364	367	164	133	119	181	103	203	362	160	227	187	159	
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	100%	83.6%	14.9%	21.8%	37.7%	31.2%	49.7%	50.1%	22.4%	18.1%	16.2%	24.7%	14.1%	27.7%	49.4%	21.8%	31.0%	25.5%	21.7%	
Much More Likely to Vote for Candidate who Shared My Priority	132	99	28	36	51	36	72	60	16	31	19	40	20	33	62	34	40	22	36	
	18.0%	16.2%	25.7%	22.5%	18.5%	15.7%	19.8%	16.3%	9.8%	23.3%	16.0%	22.1%	19.4%	16.3%	17.1%	21.2%	17.6%	11.8%	22.6%	
Somewhat More Likely to Vote for Candidate who Shared My Priority	262	221	39	58	98	84	130	132	65	39	33	73	38	70	134	56	70	84	52	
	35.7%	36.1%	35.8%	36.2%	35.5%	36.7%	35.7%	36.0%	39.6%	29.3%	27.7%	40.3%	36.9%	34.5%	37.0%	35.0%	30.8%	44.9%	32.7%	
Would Not Matter One Way or the Other	319	276	40	61	121	106	151	167	78	59	66	64	42	96	158	66	103	81	69	
	43.5%	45.0%	36.7%	38.1%	43.8%	46.3%	41.5%	45.5%	47.6%	44.4%	55.5%	35.4%	40.8%	47.3%	43.6%	41.2%	45.4%	43.3%	43.4%	
Don't Know / Refused	20	17	2	5	6	3	11	8	5	4	1	4	3	4	8	4	14	-	2	
	2.7%	2.8%	1.8%	3.1%	2.2%	1.3%	3.0%	2.2%	3.0%	3.0%	0.8%	2.2%	2.9%	2.0%	2.2%	2.5%	6.2%	-	1.3%	

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Q.34a. How important to you is cutting spending for renewable energy in deciding how you vote in Congressional elections?

POLITICAL

	DIRECTION		CLINTON		GINGRICH		PARTY ID			IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT									
	[=====]		[=====]		[=====]		[=====]			[=====]			[=====]				[=====]									
	Trght	Wrng		Dis-		Dis-				Very	Smwht		Cnsrv	Mod/L	Cnsrv	Mod/L										
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlist	Cnsrv	Egltn	Lbrtn	Sttst	Pplst	Librl	Mtlist	
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
RENEWABLE ENERGY	135	40	82	48	77	59	60	75	14	42	39	62	23	64	9	24	15	9	43	11	23	12	16	7	11	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	30%	61%	35.6%	57.0%	43.7%	44.4%	55.6%	10%	31.1%	28.9%	45.9%	17.0%	47.4%	6.7%	17.8%	11.1%	6.7%	31.9%	8.1%	17.0%	8.9%	11.9%	5.2%	8.1%	
Much More Likely to Vote for Candidate who Shared My Priority	20	5	12	7	12	8	9	9	2	8	4	9	5	8	1	4	3	1	3	2	3	2	4	1	4	
	15%	12%	15%	14.6%	15.6%	13.6%	15.0%	12.0%	14%	19.0%	10.3%	14.5%	21.7%	12.5%	11.1%	16.7%	20.0%	11.1%	7.0%	18.2%	13.0%	16.7%	25.0%	14.3%	36.4%	
Somewhat More Likely to Vote for Candidate who Shared My Priority	37	8	25	11	22	16	17	24	3	7	10	18	7	19	5	4	3	4	11	5	6	1	3	2	4	
	27%	20%	30%	22.9%	28.6%	27.1%	28.3%	32.0%	21%	16.7%	25.6%	29.0%	30.4%	29.7%	55.6%	16.7%	20.0%	44.4%	25.6%	45.5%	26.1%	8.3%	18.8%	28.6%	36.4%	
Would Not Matter One Way or the Other	75	27	43	30	40	34	32	40	9	26	24	34	10	35	3	16	8	4	27	3	14	9	9	4	3	
	56%	68%	52%	62.5%	51.9%	57.6%	53.3%	53.3%	64%	61.9%	61.5%	54.8%	43.5%	54.7%	33.3%	66.7%	53.3%	44.4%	62.8%	27.3%	60.9%	75.0%	56.2%	57.1%	27.3%	
Don't Know / Refused	3	-	2	-	3	1	2	2	-	1	1	1	1	2	-	-	1	-	2	1	-	-	-	-	-	
	2.2%		2.4%		3.9%	1.7%	3.3%	2.7%		2.4%	2.6%	1.6%	4.3%	3.1%			6.7%		4.7%	9.1%						

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Q.34a. How important to you is cutting spending for renewable energy in deciding how you vote in Congressional elections?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREGN BORN	WHO ENTERS		# U.S. ADMITS	
	[=====]	[=====]				[=====]		[=====]				[=====]			[=====]			[=====]	[=====]		[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [=====]	SmeMre Leglly	More Illgly	MreThn 800K	LssThn 800K
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RENEWABLE ENERGY	135	19	36	44	36	61	74	23	38	32	42	51	42	41	59	26	49	43	36	93	73	53
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.1%	26.7%	32.6%	26.7%	45.2%	54.8%	17.0%	28.1%	23.7%	31.1%	37.8%	31.1%	30.4%	43.7%	19.3%	36.3%	31.9%	26.7%	68.9%	54.1%	39.3%
Much More Likely to Vote for Candidate who Shared My Priority	20	2	7	5	6	9	11	3	6	6	5	9	8	3	6	7	7	6	7	13	13	7
	14.8%	10.5%	19.4%	11.4%	16.7%	14.8%	14.9%	13.0%	15.8%	18.8%	11.9%	17.6%	19.0%	7.3%	10.2%	26.9%	14.3%	14.0%	19.4%	14.0%	17.8%	13.2%
Somewhat More Likely to Vote for Candidate who Shared My Priority	37	3	10	12	12	14	23	5	9	8	15	16	10	11	20	3	14	14	6	31	20	16
	27.4%	15.8%	27.8%	27.3%	33.3%	23.0%	31.1%	21.7%	23.7%	25.0%	35.7%	31.4%	23.8%	26.8%	33.9%	11.5%	28.6%	32.6%	16.7%	33.3%	27.4%	30.2%
Would Not Matter One Way or the Other	75	13	19	25	18	37	38	14	23	18	20	25	24	25	32	15	27	22	21	48	38	29
	55.6%	68.4%	52.8%	56.8%	50.0%	60.7%	51.4%	60.9%	60.5%	56.2%	47.6%	49.0%	57.1%	61.0%	54.2%	57.7%	55.1%	51.2%	58.3%	51.6%	52.1%	54.7%
Don't Know / Refused	3	1	-	2	-	1	2	1	-	-	2	1	-	2	1	1	1	1	2	1	2	1
	2.2%	5.3%	-	4.5%	-	1.6%	2.7%	4.3%	-	-	4.8%	2.0%	-	4.9%	1.7%	3.8%	2.0%	2.3%	5.6%	1.1%	2.7%	1.9%

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Q.34a. How important to you is cutting spending for renewable energy in deciding how you vote in Congressional elections?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION				BORN AGAIN		REGION				
	[=====]			[=====]			[=====]		[=====]				[=====]		[=====]				
		Non-White		Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West / Pacific
	TOTAL	White	White	\$25000	-49999	& Over	Yes	No	Prtstn	Baptst	Prtstn	Cathlc	/ None	Yes	No	East	South	/Cntrl	Pacific
RENEWABLE ENERGY	135	124	10	27	53	39	77	58	39	29	20	28	14	46	65	28	46	30	31
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	91.9%	7.4%	20.0%	39.3%	28.9%	57.0%	43.0%	28.9%	21.5%	14.8%	20.7%	10.4%	34.1%	48.1%	20.7%	34.1%	22.2%	23.0%
Much More Likely to Vote for Candidate who Shared My Priority	20	19	1	5	7	8	15	5	4	4	-	6	4	7	7	4	9	2	5
	14.8%	15.3%	10.0%	18.5%	13.2%	20.5%	19.5%	8.6%	10.3%	13.8%		21.4%	28.6%	15.2%	10.8%	14.3%	19.6%	6.7%	16.1%
Somewhat More Likely to Vote for Candidate who Shared My Priority	37	36	1	7	14	9	21	16	12	7	7	8	2	9	22	8	8	12	9
	27.4%	29.0%	10.0%	25.9%	26.4%	23.1%	27.3%	27.6%	30.8%	24.1%	35.0%	28.6%	14.3%	19.6%	33.8%	28.6%	17.4%	40.0%	29.0%
Would Not Matter One Way or the Other	75	66	8	14	31	22	39	36	21	18	13	13	8	29	34	15	27	16	17
	55.6%	53.2%	80.0%	51.9%	58.5%	56.4%	50.6%	62.1%	53.8%	62.1%	65.0%	46.4%	57.1%	63.0%	52.3%	53.6%	58.7%	53.3%	54.8%
Don't Know / Refused	3	3	-	1	1	-	2	1	2	-	-	1	-	1	2	1	2	-	-
	2.2%	2.4%		3.7%	1.9%		2.6%	1.7%	5.1%			3.6%		2.2%	3.1%	3.6%	4.3%		

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Q.34b. How important to you is cutting spending for nuclear power in deciding how you vote in Congressional elections?

POLITICAL

	DIRECTION			CLINTON		GINGRICH		PARTY ID			IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT									
	[=====]			[=====]		[=====]		[=====]			[=====]			[=====]				[=====]									
	Right	Wrng		Dis-		Dis-		Rpbln	Ind	Dmcr	Very	Smwht		Cnsrv	Mod/L	Cnsrv	Mod/L		Cnsrv	Egln	Lbrtn	Sttst	Pplst	Librl	Mtst		
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Egln	Lbrtn	Sttst	Pplst	Librl	Mtst		
	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
NUCLEAR POWER	305	66	200	153	129	86	187	114	28	143	63	119	96	92	21	64	76	27	70	16	43	39	41	31	24		
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	22%	66%	50.2%	42.3%	28.2%	61.3%	37.4%	9.2%	46.9%	20.7%	39.0%	31.5%	30.2%	6.9%	21.0%	24.9%	8.9%	23.0%	5.2%	14.1%	12.8%	13.4%	10.2%	7.9%		
Much More Likely to Vote for Candidate who Shared My Priority	69	11	49	35	31	19	48	17	8	41	16	25	24	10	7	22	19	4	11	5	9	12	11	5	8		
	23%	17%	24%	22.9%	24.0%	22.1%	25.7%	14.9%	29%	28.7%	25.4%	21.0%	25.0%	10.9%	33.3%	34.4%	25.0%	14.8%	15.7%	31.2%	20.9%	30.8%	26.8%	16.1%	33.3%		
Somewhat More Likely to Vote for Candidate who Shared My Priority	128	26	85	63	56	30	83	57	11	54	26	47	43	45	11	21	31	12	25	8	17	14	18	17	12		
	42%	39%	42%	41.2%	43.4%	34.9%	44.4%	50.0%	39%	37.8%	41.3%	39.5%	44.8%	48.9%	52.4%	32.8%	40.8%	44.4%	35.7%	50.0%	39.5%	35.9%	43.9%	54.8%	50.0%		
Would Not Matter One Way or the Other	101	27	61	50	41	34	52	39	9	44	20	43	27	36	3	19	24	11	32	3	16	11	12	8	4		
	33%	41%	30%	32.7%	31.8%	39.5%	27.8%	34.2%	32%	30.8%	31.7%	36.1%	28.1%	39.1%	14.3%	29.7%	31.6%	40.7%	45.7%	18.8%	37.2%	28.2%	29.3%	25.8%	16.7%		
Don't Know / Refused	7	2	5	5	1	3	4	1	-	4	1	4	2	1	-	2	2	-	2	-	1	2	-	1	-		
	2.3%	3.0%	2.5%	3.3%	0.8%	3.5%	2.1%	0.9%		2.8%	1.6%	3.4%	2.1%	1.1%		3.1%	2.6%		2.9%		2.3%	5.1%		3.2%			

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Q.34b. How important to you is cutting spending for nuclear power in deciding how you vote in Congressional elections?

DEMOGRAPHICS 1

	AGE				GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREGN	WHO ENTERS		# U.S. ADMITS		
	[=====]				[=====]		[=====]				[=====]			[=====]			BORN	[=====]		[=====]		
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [=====]	SmeMre Leglly	More Illgly	MreThn 800K	LssThn 800K
NUCLEAR POWER	305	46	111	87	56	142	163	73	66	84	77	119	83	100	143	65	92	117	76	198	159	121
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	15.1%	36.4%	28.5%	18.4%	46.6%	53.4%	23.9%	21.6%	27.5%	25.2%	39.0%	27.2%	32.8%	46.9%	21.3%	30.2%	38.4%	24.9%	64.9%	52.1%	39.7%
Much More Likely to Vote for Candidate who Shared My Priority	69	10	22	24	12	39	30	18	20	14	16	30	23	14	35	11	21	28	17	44	29	36
	22.6%	21.7%	19.8%	27.6%	21.4%	27.5%	18.4%	24.7%	30.3%	16.7%	20.8%	25.2%	27.7%	14.0%	24.5%	16.9%	22.8%	23.9%	22.4%	22.2%	18.2%	29.8%
Somewhat More Likely to Vote for Candidate who Shared My Priority	128	18	50	34	22	55	73	30	23	38	33	43	26	59	66	25	37	56	38	84	70	50
	42.0%	39.1%	45.0%	39.1%	39.3%	38.7%	44.8%	41.1%	34.8%	45.2%	42.9%	36.1%	31.3%	59.0%	46.2%	38.5%	40.2%	47.9%	50.0%	42.4%	44.0%	41.3%
Would Not Matter One Way or the Other	101	16	39	26	20	46	55	25	21	30	25	44	32	24	39	28	31	30	21	67	57	33
	33.1%	34.8%	35.1%	29.9%	35.7%	32.4%	33.7%	34.2%	31.8%	35.7%	32.5%	37.0%	38.6%	24.0%	27.3%	43.1%	33.7%	25.6%	27.6%	33.8%	35.8%	27.3%
Don't Know / Refused	7	2	-	3	2	2	5	-	2	2	3	2	2	3	3	1	3	3	-	3	3	2
	2.3%	4.3%		3.4%	3.6%	1.4%	3.1%		3.0%	2.4%	3.9%	1.7%	2.4%	3.0%	2.1%	1.5%	3.3%	2.6%		1.5%	1.9%	1.7%

Research / Strategy / Management

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Q.34b. How important to you is cutting spending for nuclear power in deciding how you vote in Congressional elections?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
		Non-White		Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwest /Cntrl	West / Pacific
	TOTAL	White	White																
NUCLEAR POWER	305	244	58	74	119	87	146	159	60	59	51	81	42	92	149	72	87	79	67
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	80.0%	19.0%	24.3%	39.0%	28.5%	47.9%	52.1%	19.7%	19.3%	16.7%	26.6%	13.8%	30.2%	48.9%	23.6%	28.5%	25.9%	22.0%
Much More Likely to Vote for Candidate who Shared My Priority	69	47	20	22	28	16	34	35	6	16	17	21	8	17	37	18	16	14	21
	22.6%	19.3%	34.5%	29.7%	23.5%	18.4%	23.3%	22.0%	10.0%	27.1%	33.3%	25.9%	19.0%	18.5%	24.8%	25.0%	18.4%	17.7%	31.3%
Somewhat More Likely to Vote for Candidate who Shared My Priority	128	106	21	25	51	43	60	68	29	19	13	37	24	39	58	27	37	38	26
	42.0%	43.4%	36.2%	33.8%	42.9%	49.4%	41.1%	42.8%	48.3%	32.2%	25.5%	45.7%	57.1%	42.4%	38.9%	37.5%	42.5%	48.1%	38.8%
Would Not Matter One Way or the Other	101	86	15	23	40	27	47	54	24	21	21	22	9	34	52	25	30	27	19
	33.1%	35.2%	25.9%	31.1%	33.6%	31.0%	32.2%	34.0%	40.0%	35.6%	41.2%	27.2%	21.4%	37.0%	34.9%	34.7%	34.5%	34.2%	28.4%
Don't Know / Refused	7	5	2	4	-	1	5	2	1	3	-	1	1	2	2	2	4	-	1
	2.3%	2.0%	3.4%	5.4%		1.1%	3.4%	1.3%	1.7%	5.1%		1.2%	2.4%	2.2%	1.3%	2.8%	4.6%		1.5%

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Q.34c. How important to you is cutting spending for fossil fuels in deciding how you vote in Congressional elections?

	POLITICAL																									
	DIRECTION		CLINTON		GINGRICH		PARTY ID			IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT									
	[=====]		[=====]		[=====]		[=====]			[=====]			[=====]				[=====]									
	Rght Wrng		Dis-		Dis-		Very Smwht			Cnsrv Mod/L Cnsrv Mod/L																
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Stst	Pplst	Librl	Mtst	
FOSSIL FUELS	203	63	118	102	93	82	103	91	19	77	48	59	65	72	19	22	52	14	43	15	44	17	30	19	14	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	31%	58%	50.2%	45.8%	40.4%	50.7%	44.8%	9.4%	37.9%	23.6%	29.1%	32.0%	35.5%	9.4%	10.8%	25.6%	6.9%	21.2%	7.4%	21.7%	8.4%	14.8%	9.4%	6.9%	
Much More Likely to Vote for Candidate who Shared My Priority	24	9	12	12	12	6	16	12	2	8	3	8	10	8	4	2	6	3	2	1	5	-	5	4	3	
	12%	14%	10%	11.8%	12.9%	7.3%	15.5%	13.2%	11%	10.4%	6.2%	13.6%	15.4%	11.1%	21.1%	9.1%	11.5%	21.4%	4.7%	6.7%	11.4%		16.7%	21.1%	21.4%	
Somewhat More Likely to Vote for Candidate who Shared My Priority	64	24	35	31	30	26	28	30	5	25	14	22	18	24	6	9	16	4	13	7	13	6	11	4	5	
	32%	38%	30%	30.4%	32.3%	31.7%	27.2%	33.0%	26%	32.5%	29.2%	37.3%	27.7%	33.3%	31.6%	40.9%	30.8%	28.6%	30.2%	46.7%	29.5%	35.3%	36.7%	21.1%	35.7%	
Would Not Matter One Way or the Other	108	30	66	57	47	49	54	47	11	41	31	27	33	39	8	11	27	7	26	7	25	11	14	10	6	
	53%	48%	56%	55.9%	50.5%	59.8%	52.4%	51.6%	58%	53.2%	64.6%	45.8%	50.8%	54.2%	42.1%	50.0%	51.9%	50.0%	60.5%	46.7%	56.8%	64.7%	46.7%	52.6%	42.9%	
Don't Know / Refused	7	-	5	2	4	1	5	2	1	3	-	2	4	1	1	-	3	-	2	-	1	-	-	1	-	
	3.4%		4.2%	2.0%	4.3%	1.2%	4.9%	2.2%	5.3%	3.9%		3.4%	6.2%	1.4%	5.3%		5.8%		4.7%		2.3%			5.3%		

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Q.34c. How important to you is cutting spending for fossil fuels in deciding how you vote in Congressional elections?

	DEMOGRAPHICS 1																					
	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN	WHO ENTERS		# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			BORN	[=====]		[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Grad	Some Coll	College Grad	Good	Can't Say	Bad	GP/PTS [=====]	SmrMre Leglly	More Illgly	MreThn 800K	LssThn 800K
FOSSIL FUELS	203	33	83	55	25	135	68	75	55	41	25	57	55	88	120	35	45	74	51	134	112	76
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	16.3%	40.9%	27.1%	12.3%	66.5%	33.5%	36.9%	27.1%	20.2%	12.3%	28.1%	27.1%	43.3%	59.1%	17.2%	22.2%	36.5%	25.1%	66.0%	55.2%	37.4%
Much More Likely to Vote for Candidate who Shared My Priority	24	3	12	4	4	15	9	9	5	6	3	8	7	9	15	3	6	12	8	15	12	11
	11.8%	9.1%	14.5%	7.3%	16.0%	11.1%	13.2%	12.0%	9.1%	14.6%	12.0%	14.0%	12.7%	10.2%	12.5%	8.6%	13.3%	16.2%	15.7%	11.2%	10.7%	14.5%
Somewhat More Likely to Vote for Candidate who Shared My Priority	64	9	27	21	5	49	15	31	17	5	9	19	22	22	40	9	13	22	15	44	34	26
	31.5%	27.3%	32.5%	38.2%	20.0%	36.3%	22.1%	41.3%	30.9%	12.2%	36.0%	33.3%	40.0%	25.0%	33.3%	25.7%	28.9%	29.7%	29.4%	32.8%	30.4%	34.2%
Would Not Matter One Way or the Other	108	19	41	30	15	67	41	33	32	27	13	28	25	54	61	21	25	39	26	70	62	38
	53.2%	57.6%	49.4%	54.5%	60.0%	49.6%	60.3%	44.0%	58.2%	65.9%	52.0%	49.1%	45.5%	61.4%	50.8%	60.0%	55.6%	52.7%	51.0%	52.2%	55.4%	50.0%
Don't Know / Refused	7	2	3	-	1	4	3	2	1	3	-	2	1	3	4	2	1	1	2	5	4	1
	3.4%	6.1%	3.6%		4.0%	3.0%	4.4%	2.7%	1.8%	7.3%		3.5%	1.8%	3.4%	3.3%	5.7%	2.2%	1.4%	3.9%	3.7%	3.6%	1.3%

Research / Strategy / Management

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Q.34c. How important to you is cutting spending for fossil fuels in deciding how you vote in Congressional elections?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
		Non-White		Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West / Pacific
	TOTAL	White	White	\$25000	\$25000	\$50000													
FOSSIL FUELS	203	172	26	28	74	85	95	106	39	27	40	49	36	40	107	36	67	51	49
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	84.7%	12.8%	13.8%	36.5%	41.9%	46.8%	52.2%	19.2%	13.3%	19.7%	24.1%	17.7%	19.7%	52.7%	17.7%	33.0%	25.1%	24.1%
Much More Likely to Vote for Candidate who Shared My Priority	24	18	4	3	11	8	13	11	2	5	2	8	5	4	11	5	5	5	9
	11.8%	10.5%	15.4%	10.7%	14.9%	9.4%	13.7%	10.4%	5.1%	18.5%	5.0%	16.3%	13.9%	10.0%	10.3%	13.9%	7.5%	9.8%	18.4%
Somewhat More Likely to Vote for Candidate who Shared My Priority	64	56	7	10	24	24	33	31	14	7	11	17	9	12	36	11	21	18	14
	31.5%	32.6%	26.9%	35.7%	32.4%	28.2%	34.7%	29.2%	35.9%	25.9%	27.5%	34.7%	25.0%	30.0%	33.6%	30.6%	31.3%	35.3%	28.6%
Would Not Matter One Way or the Other	108	92	15	15	36	51	47	60	22	14	26	23	20	23	57	20	35	28	25
	53.2%	53.5%	57.7%	53.6%	48.6%	60.0%	49.5%	56.6%	56.4%	51.9%	65.0%	46.9%	55.6%	57.5%	53.3%	55.6%	52.2%	54.9%	51.0%
Don't Know / Refused	7	6	-	-	3	2	2	4	1	1	1	1	2	1	3	-	6	-	1
	3.4%	3.5%			4.1%	2.4%	2.1%	3.8%	2.6%	3.7%	2.5%	2.0%	5.6%	2.5%	2.8%		9.0%		2.0%

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Q.35. Which program do you think should receive federal tax incentives to attract efforts from the private sector to develop and promote it?

	POLITICAL																										
	DIRECTION			CLINTON		GINGRICH		PARTY ID			IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT									
	[=====]			[=====]		[=====]		[=====]			[=====]			[=====]				[=====]									
	Right Wrng			Dis-		Dis-					Very Smwht			Cnsrv Mod/L Cnsrv Mod/L													
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlist	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtlist		
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71		
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%		
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	320	78	204	162	137	101	188	128	31	136	63	119	107	107	20	49	85	21	67	27	59	27	41	36	26		
	32%	31%	33%	33.8%	30.3%	29.1%	35.0%	29.8%	33%	33.2%	26.9%	31.7%	41.2%	30.8%	26.7%	26.3%	41.7%	24.7%	27.2%	43.5%	36.9%	26.0%	30.6%	41.9%	36.6%		
Nuclear Power	63	22	33	23	40	28	31	34	8	19	21	23	12	31	3	7	11	11	17	4	13	6	5	3	4		
	6.3%	8.8%	5.3%	4.8%	8.8%	8.1%	5.8%	7.9%	8.5%	4.6%	9.0%	6.1%	4.6%	8.9%	4.0%	3.8%	5.4%	12.9%	6.9%	6.5%	8.1%	5.8%	3.7%	3.5%	5.6%		
Technologies to Improve Energy Efficiency and Conservation	170	51	102	92	66	51	100	78	14	72	34	61	51	56	21	31	38	15	41	7	28	21	24	19	9		
	17%	20%	16%	19.2%	14.6%	14.7%	18.6%	18.1%	15%	17.6%	14.5%	16.3%	19.6%	16.1%	28.0%	16.7%	18.6%	17.6%	16.7%	11.3%	17.5%	20.2%	17.9%	22.1%	12.7%		
Fossil Fuels such as Oil, Gasoline and Coal	72	22	44	37	34	31	32	24	7	36	18	34	15	20	4	25	10	8	18	5	5	9	13	3	6		
	7.2%	8.8%	7.1%	7.7%	7.5%	8.9%	6.0%	5.6%	7.4%	8.8%	7.7%	9.1%	5.8%	5.8%	5.3%	13.4%	4.9%	9.4%	7.3%	8.1%	3.1%	8.7%	9.7%	3.5%	8.5%		
Natural Gas	91	22	58	38	42	37	45	45	7	30	26	31	21	35	8	13	15	8	24	7	17	9	10	6	9		
	9.1%	8.8%	9.3%	7.9%	9.3%	10.7%	8.4%	10.5%	7.4%	7.3%	11.1%	8.3%	8.1%	10.1%	10.7%	7.0%	7.4%	9.4%	9.8%	11.3%	10.6%	8.7%	7.5%	7.0%	12.7%		
None of These	86	25	52	36	44	33	43	40	14	26	24	34	14	34	6	15	9	5	27	1	17	10	13	5	5		
	8.6%	10%	8.3%	7.5%	9.7%	9.5%	8.0%	9.3%	15%	6.3%	10.3%	9.1%	5.4%	9.8%	8.0%	8.1%	4.4%	5.9%	11.0%	1.6%	10.6%	9.6%	9.7%	5.8%	7.0%		
Don't Know / Refused	198	29	131	91	89	66	98	81	13	91	48	73	40	64	13	46	36	17	52	11	21	22	28	14	12		
	20%	12%	21%	19.0%	19.7%	19.0%	18.2%	18.8%	14%	22.2%	20.5%	19.5%	15.4%	18.4%	17.3%	24.7%	17.6%	20.0%	21.1%	17.7%	13.1%	21.2%	20.9%	16.3%	16.9%		

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Q.35. Which program do you think should receive federal tax incentives to attract efforts from the private sector to develop and promote it?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS		# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			BORN	[=====]		[=====]	
						Male	Female	Male	Female	Male	Female	H.S.	Some	Collge		Can't		GP/PTS	SmeMre	More	MreThn	LssThn
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	< 45	45 +	< 45	45 +	Gradte	Collge	Gradte	Good	Say	Bad	[=====]	Leglly	Ilgly	800K	800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	320	50	125	83	54	173	147	103	66	72	71	102	91	122	179	62	74	132	87	197	180	116
	32.0%	35.7%	38.8%	30.9%	22.0%	36.2%	28.2%	45.6%	27.5%	30.5%	25.8%	25.9%	34.1%	37.9%	39.6%	27.7%	25.1%	37.7%	34.4%	30.5%	34.2%	31.4%
Nuclear Power	63	12	16	14	20	36	27	16	20	12	14	25	17	20	30	14	18	21	14	44	40	16
	6.3%	8.6%	5.0%	5.2%	8.1%	7.5%	5.2%	7.1%	8.3%	5.1%	5.1%	6.3%	6.4%	6.2%	6.6%	6.2%	6.1%	6.0%	5.5%	6.8%	7.6%	4.3%
Technologies to Improve Energy Efficiency and Conservation	170	20	64	55	29	67	103	30	36	54	48	62	44	64	82	39	46	56	48	111	89	68
	17.0%	14.3%	19.9%	20.4%	11.8%	14.0%	19.7%	13.3%	15.0%	22.9%	17.5%	15.7%	16.5%	19.9%	18.1%	17.4%	15.6%	16.0%	19.0%	17.2%	16.9%	18.4%
Fossil Fuels such as Oil, Gasoline and Coal	72	11	20	26	12	35	37	11	22	20	16	31	19	20	20	12	38	24	15	54	29	37
	7.2%	7.9%	6.2%	9.7%	4.9%	7.3%	7.1%	4.9%	9.2%	8.5%	5.8%	7.9%	7.1%	6.2%	4.4%	5.4%	12.9%	6.9%	5.9%	8.4%	5.5%	10.0%
Natural Gas	91	12	29	20	28	40	51	19	20	22	28	43	19	25	31	23	35	32	20	64	51	33
	9.1%	8.6%	9.0%	7.4%	11.4%	8.4%	9.8%	8.4%	8.3%	9.3%	10.2%	10.9%	7.1%	7.8%	6.9%	10.3%	11.9%	9.1%	7.9%	9.9%	9.7%	8.9%
None of These	86	11	26	23	23	52	34	22	29	15	17	26	30	28	40	16	28	27	16	61	46	29
	8.6%	7.9%	8.1%	8.6%	9.3%	10.9%	6.5%	9.7%	12.1%	6.4%	6.2%	6.6%	11.2%	8.7%	8.8%	7.1%	9.5%	7.7%	6.3%	9.4%	8.7%	7.9%
Don't Know / Refused	198	24	42	48	80	75	123	25	47	41	81	105	47	43	70	58	56	58	53	115	92	70
	19.8%	17.1%	13.0%	17.8%	32.5%	15.7%	23.6%	11.1%	19.6%	17.4%	29.5%	26.6%	17.6%	13.4%	15.5%	25.9%	19.0%	16.6%	20.9%	17.8%	17.5%	19.0%

Research / Strategy / Management

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Q.35. Which program do you think should receive federal tax incentives to attract efforts from the private sector to develop and promote it?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION				BORN AGAIN		REGION				
	[=====]			[=====]			[=====]		[=====]				[=====]		[=====]				
		Non-		Under	\$25000	\$50000			High		Other		N-Chrs			North-		Midwest	West /
	TOTAL	White	White	\$25000	-49999	& Over	Yes	No	Prtstn	Baptst	Prtstn	Cathlc	/ None	Yes	No	East	South	/Cntrl	Pacific
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
Renewable Energy Involving Solar, Wind, Geothermal, Biomass, and Hydroelectric Power	320	276	40	69	111	114	145	174	72	43	65	64	59	70	165	67	95	76	82
	32.0%	33.1%	26.8%	28.3%	31.0%	39.9%	27.9%	36.7%	33.0%	22.5%	40.6%	26.9%	43.1%	24.6%	35.0%	33.0%	27.5%	31.4%	39.2%
Nuclear Power	63	51	10	12	24	20	38	24	12	10	11	16	12	21	25	14	26	11	12
	6.3%	6.1%	6.7%	4.9%	6.7%	7.0%	7.3%	5.1%	5.5%	5.2%	6.9%	6.7%	8.8%	7.4%	5.3%	6.9%	7.5%	4.5%	5.7%
Technologies to Improve Energy Efficiency and Conservation	170	134	33	35	67	56	84	86	36	37	17	48	27	48	80	37	45	55	33
	17.0%	16.1%	22.1%	14.3%	18.7%	19.6%	16.2%	18.1%	16.5%	19.4%	10.6%	20.2%	19.7%	16.9%	17.0%	18.2%	13.0%	22.7%	15.8%
Fossil Fuels such as Oil, Gasoline and Coal	72	57	12	19	33	15	42	29	16	19	8	21	4	24	36	17	24	19	12
	7.2%	6.8%	8.1%	7.8%	9.2%	5.2%	8.1%	6.1%	7.3%	9.9%	5.0%	8.8%	2.9%	8.5%	7.6%	8.4%	6.9%	7.9%	5.7%
Natural Gas	91	76	14	27	30	21	50	40	16	22	18	27	4	31	47	24	27	23	17
	9.1%	9.1%	9.4%	11.1%	8.4%	7.3%	9.6%	8.4%	7.3%	11.5%	11.2%	11.3%	2.9%	10.9%	10.0%	11.8%	7.8%	9.5%	8.1%
None of These	86	76	9	15	34	28	47	38	21	16	18	15	11	29	37	14	34	21	17
	8.6%	9.1%	6.0%	6.1%	9.5%	9.8%	9.0%	8.0%	9.6%	8.4%	11.2%	6.3%	8.0%	10.2%	7.9%	6.9%	9.8%	8.7%	8.1%
Don't Know / Refused	198	163	31	67	59	32	114	83	45	44	23	47	20	61	81	30	95	37	36
	19.8%	19.6%	20.8%	27.5%	16.5%	11.2%	21.9%	17.5%	20.6%	23.0%	14.4%	19.7%	14.6%	21.5%	17.2%	14.8%	27.5%	15.3%	17.2%

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Q.36. Do you think we should retain funding for improving energy efficiency or cut funding to balance the budget?

	POLITICAL																								
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT							
	[=====]		[=====]		[=====]		[=====]				[=====]			[=====]				[=====]							
	Rght Wrng		Dis-		Dis-						Very Smwht			Cnsrv Mod/L Cnsrv Mod/L											
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbld	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbld	Rpbld	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtlt
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%
Retain Funding for Improving Energy Efficiency	499	126	307	287	185	138	307	179	46	249	93	177	160	137	39	98	143	47	89	36	70	68	65	57	39
	50%	51%	49%	59.9%	40.9%	39.8%	57.2%	41.6%	49%	60.7%	39.7%	47.2%	61.5%	39.5%	52.0%	52.7%	70.1%	55.3%	36.2%	58.1%	43.8%	65.4%	48.5%	66.3%	54.9%
Cut Funding to Balance the Budget	406	107	257	146	231	183	179	224	36	117	125	162	78	189	31	67	45	31	135	21	83	30	52	18	24
	41%	43%	41%	30.5%	51.1%	52.7%	33.3%	52.1%	38%	28.5%	53.4%	43.2%	30.0%	54.5%	41.3%	36.0%	22.1%	36.5%	54.9%	33.9%	51.9%	28.8%	38.8%	20.9%	33.8%
Don't Know / Refused	95	16	60	46	36	26	51	27	12	44	16	36	22	21	5	21	16	7	22	5	7	6	17	11	8
	9.5%	6.4%	9.6%	9.6%	8.0%	7.5%	9.5%	6.3%	13%	10.7%	6.8%	9.6%	8.5%	6.1%	6.7%	11.3%	7.8%	8.2%	8.9%	8.1%	4.4%	5.8%	12.7%	12.8%	11.3%

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Q.36. Do you think we should retain funding for improving energy efficiency or cut funding to balance the budget?

DEMOGRAPHICS 1																						
	AGE				GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREGN BORN	WHO ENTERS			# U.S. ADMITS	
	[=====]				[=====]		[=====]				[=====]			[=====]			BORN	[=====]			[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [====]	SmeMre Leglly	More Illgly	MreThn 800K	LssThn 800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
Retain Funding for Improving Energy Efficiency	499	72	177	132	107	241	258	122	112	127	127	167	131	196	240	103	146	175	143	308	263	186
	49.9%	51.4%	55.0%	49.1%	43.5%	50.4%	49.4%	54.0%	46.7%	53.8%	46.2%	42.4%	49.1%	60.9%	53.1%	46.0%	49.5%	50.0%	56.5%	47.7%	49.9%	50.4%
Cut Funding to Balance the Budget	406	53	120	118	105	199	207	88	108	85	115	172	115	110	185	96	118	151	85	283	217	150
	40.6%	37.9%	37.3%	43.9%	42.7%	41.6%	39.7%	38.9%	45.0%	36.0%	41.8%	43.7%	43.1%	34.2%	40.9%	42.9%	40.0%	43.1%	33.6%	43.8%	41.2%	40.7%
Don't Know / Refused	95	15	25	19	34	38	57	16	20	24	33	55	21	16	27	25	31	24	25	55	47	33
	9.5%	10.7%	7.8%	7.1%	13.8%	7.9%	10.9%	7.1%	8.3%	10.2%	12.0%	14.0%	7.9%	5.0%	6.0%	11.2%	10.5%	6.9%	9.9%	8.5%	8.9%	8.9%

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Q.36. Do you think we should retain funding for improving energy efficiency or cut funding to balance the budget?

DEMOGRAPHICS 2

	ETHNICITY [=====]			INCOME [=====]			MILITARY EXP. FAMILY [=====]		RELIGION [=====]					BORN AGAIN [=====]		REGION [=====]			
	TOTAL	White	Non- White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North- East	South	Midwt /Cntrl	West / Pacific
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
Retain Funding for Improving Energy Efficiency	499	410	81	113	182	156	230	267	110	86	75	118	84	117	248	106	163	121	109
	49.9%	49.2%	54.4%	46.3%	50.8%	54.5%	44.2%	56.3%	50.5%	45.0%	46.9%	49.6%	61.3%	41.2%	52.7%	52.2%	47.1%	50.0%	52.2%
Cut Funding to Balance the Budget	406	349	51	98	153	110	236	166	88	82	69	102	42	137	182	82	133	107	84
	40.6%	41.9%	34.2%	40.2%	42.7%	38.5%	45.4%	35.0%	40.4%	42.9%	43.1%	42.9%	30.7%	48.2%	38.6%	40.4%	38.4%	44.2%	40.2%
Don't Know / Refused	95	74	17	33	23	20	54	41	20	23	16	18	11	30	41	15	50	14	16
	9.5%	8.9%	11.4%	13.5%	6.4%	7.0%	10.4%	8.6%	9.2%	12.0%	10.0%	7.6%	8.0%	10.6%	8.7%	7.4%	14.5%	5.8%	7.7%

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Q.37. Do you agree or disagree that Federal funds should be used to develop a new generation of commercial nuclear power plants?

	POLITICAL																								
	DIRECTION			CLINTON		GINGRICH		PARTY ID			IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT							
	[=====]			[=====]		[=====]		[=====]			[=====]			[=====]				[=====]							
	Right Wrng			Dis-		Dis-					Very Smwht			Cnsrv Mod/L Cnsrv Mod/L											
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtst
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%
AGREE NET	231	62	145	104	112	100	109	117	25	75	65	93	46	98	17	37	33	24	65	16	30	22	33	16	13
-----	23%	25%	23%	21.7%	24.8%	28.8%	20.3%	27.2%	27%	18.3%	27.8%	24.8%	17.7%	28.2%	22.7%	19.9%	16.2%	28.2%	26.4%	25.8%	18.8%	21.2%	24.6%	18.6%	18.3%
Strongly agree	85	22	59	41	40	30	48	45	8	26	26	34	16	39	5	11	11	11	23	4	9	12	13	7	3
	8.5%	8.8%	9.5%	8.6%	8.8%	8.6%	8.9%	10.5%	8.5%	6.3%	11.1%	9.1%	6.2%	11.2%	6.7%	5.9%	5.4%	12.9%	9.3%	6.5%	5.6%	11.5%	9.7%	8.1%	4.2%
Somewhat agree	146	40	86	63	72	70	61	72	17	49	39	59	30	59	12	26	22	13	42	12	21	10	20	9	10
	15%	16%	14%	13.2%	15.9%	20.2%	11.4%	16.7%	18%	12.0%	16.7%	15.7%	11.5%	17.0%	16.0%	14.0%	10.8%	15.3%	17.1%	19.4%	13.1%	9.6%	14.9%	10.5%	14.1%
DISAGREE NET	717	174	454	348	322	233	399	299	64	305	160	268	204	239	55	137	159	56	171	42	123	78	93	65	56
-----	72%	70%	73%	72.7%	71.2%	67.1%	74.3%	69.5%	68%	74.4%	68.4%	71.5%	78.5%	68.9%	73.3%	73.7%	77.9%	65.9%	69.5%	67.7%	76.9%	75.0%	69.4%	75.6%	78.9%
Somewhat Disagree	239	74	138	113	107	100	108	123	18	83	47	104	61	101	21	38	42	19	62	11	52	22	32	17	15
	24%	30%	22%	23.6%	23.7%	28.8%	20.1%	28.6%	19%	20.2%	20.1%	27.7%	23.5%	29.1%	28.0%	20.4%	20.6%	22.4%	25.2%	17.7%	32.5%	21.2%	23.9%	19.8%	21.1%
Strongly Disagree	478	100	316	235	215	133	291	176	46	222	113	164	143	138	34	99	117	37	109	31	71	56	61	48	41
	48%	40%	51%	49.1%	47.6%	38.3%	54.2%	40.9%	49%	54.1%	48.3%	43.7%	55.0%	39.8%	45.3%	53.2%	57.4%	43.5%	44.3%	50.0%	44.4%	53.8%	45.5%	55.8%	57.7%
Don't Know /	52	13	25	27	18	14	29	14	5	30	9	14	10	10	3	12	12	5	10	4	7	4	8	5	2
Refused	5.2%	5.2%	4.0%	5.6%	4.0%	4.0%	5.4%	3.3%	5.3%	7.3%	3.8%	3.7%	3.8%	2.9%	4.0%	6.5%	5.9%	5.9%	4.1%	6.5%	4.4%	3.8%	6.0%	5.8%	2.8%

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Q.37. Do you agree or disagree that Federal funds should be used to develop a new generation of commercial nuclear power plants?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN	WHO ENTERS		# U.S. ADMITS	
	TOTAL	[=====]				[=====]		[=====]				[=====]			[=====]			BORN	[=====]		[=====]	
		18-29	30-44	45-59	60+	Male	Femle	Male	Male	Female	Female	H.S.	Some	Collge	Good	Can't	Bad	GP/PTS	SmeMre	More	MreThn	LssThn
								< 45	45 +	< 45	45 +	Gradte	Collge	Gradte		Say		[=====]	Leglly	Illgly	800K	800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
AGREE NET	231	32	70	56	67	141	90	59	77	43	46	91	63	72	98	53	75	85	67	149	135	72
-----	23.1%	22.9%	21.7%	20.8%	27.2%	29.5%	17.2%	26.1%	32.1%	18.2%	16.7%	23.1%	23.6%	22.4%	21.7%	23.7%	25.4%	24.3%	26.5%	23.1%	25.6%	19.5%
Strongly agree	85	9	26	17	30	55	30	19	34	16	13	36	22	26	39	18	26	34	25	55	50	29
	8.5%	6.4%	8.1%	6.3%	12.2%	11.5%	5.7%	8.4%	14.2%	6.8%	4.7%	9.1%	8.2%	8.1%	8.6%	8.0%	8.8%	9.7%	9.9%	8.5%	9.5%	7.9%
Somewhat agree	146	23	44	39	37	86	60	40	43	27	33	55	41	46	59	35	49	51	42	94	85	43
	14.6%	16.4%	13.7%	14.5%	15.0%	18.0%	11.5%	17.7%	17.9%	11.4%	12.0%	14.0%	15.4%	14.3%	13.1%	15.6%	16.6%	14.6%	16.6%	14.6%	16.1%	11.7%
DISAGREE NET	717	104	238	203	156	320	397	158	156	184	203	275	195	236	339	154	207	250	175	467	373	277
-----	71.7%	74.3%	73.9%	75.5%	63.4%	66.9%	76.1%	69.9%	65.0%	78.0%	73.8%	69.8%	73.0%	73.3%	75.0%	68.8%	70.2%	71.4%	69.2%	72.3%	70.8%	75.1%
Somewhat Disagree	239	39	73	70	51	112	127	59	50	53	71	86	62	87	123	64	48	89	72	144	120	95
	23.9%	27.9%	22.7%	26.0%	20.7%	23.4%	24.3%	26.1%	20.8%	22.5%	25.8%	21.8%	23.2%	27.0%	27.2%	28.6%	16.3%	25.4%	28.5%	22.3%	22.8%	25.7%
Strongly Disagree	478	65	165	133	105	208	270	99	106	131	132	189	133	149	216	90	159	161	103	323	253	182
	47.8%	46.4%	51.2%	49.4%	42.7%	43.5%	51.7%	43.8%	44.2%	55.5%	48.0%	48.0%	49.8%	46.3%	47.8%	40.2%	53.9%	46.0%	40.7%	50.0%	48.0%	49.3%
Don't Know / Refused	52	4	14	10	23	17	35	9	7	9	26	28	9	14	15	17	13	15	11	30	19	20
	5.2%	2.9%	4.3%	3.7%	9.3%	3.6%	6.7%	4.0%	2.9%	3.8%	9.5%	7.1%	3.4%	4.3%	3.3%	7.6%	4.4%	4.3%	4.3%	4.6%	3.6%	5.4%

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Q.37. Do you agree or disagree that Federal funds should be used to develop a new generation of commercial nuclear power plants?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
	TOTAL	White	Non-White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwest /Cntrl	West / Pacific
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
AGREE NET	231	196	30	48	86	75	130	99	62	37	36	61	27	57	123	51	90	48	42
-----	23.1%	23.5%	20.1%	19.7%	24.0%	26.2%	25.0%	20.9%	28.4%	19.4%	22.5%	25.6%	19.7%	20.1%	26.1%	25.1%	26.0%	19.8%	20.1%
Strongly agree	85	69	15	25	30	22	52	32	21	13	14	23	10	26	39	17	34	23	11
	8.5%	8.3%	10.1%	10.2%	8.4%	7.7%	10.0%	6.8%	9.6%	6.8%	8.8%	9.7%	7.3%	9.2%	8.3%	8.4%	9.8%	9.5%	5.3%
Somewhat agree	146	127	15	23	56	53	78	67	41	24	22	38	17	31	84	34	56	25	31
	14.6%	15.2%	10.1%	9.4%	15.6%	18.5%	15.0%	14.1%	18.8%	12.6%	13.8%	16.0%	12.4%	10.9%	17.8%	16.7%	16.2%	10.3%	14.8%
DISAGREE NET	717	591	115	180	263	199	362	351	143	146	119	167	100	214	328	143	224	191	159
-----	71.7%	70.9%	77.2%	73.8%	73.5%	69.6%	69.6%	74.1%	65.6%	76.4%	74.4%	70.2%	73.0%	75.4%	69.6%	70.4%	64.7%	78.9%	76.1%
Somewhat Disagree	239	207	28	54	80	85	116	120	51	48	36	58	34	75	107	49	67	79	44
	23.9%	24.8%	18.8%	22.1%	22.3%	29.7%	22.3%	25.3%	23.4%	25.1%	22.5%	24.4%	24.8%	26.4%	22.7%	24.1%	19.4%	32.6%	21.1%
Strongly Disagree	478	384	87	126	183	114	246	231	92	98	83	109	66	139	221	94	157	112	115
	47.8%	46.1%	58.4%	51.6%	51.1%	39.9%	47.3%	48.7%	42.2%	51.3%	51.9%	45.8%	48.2%	48.9%	46.9%	46.3%	45.4%	46.3%	55.0%
Don't Know / Refused	52	46	4	16	9	12	28	24	13	8	5	10	10	13	20	9	32	3	8
	5.2%	5.5%	2.7%	6.6%	2.5%	4.2%	5.4%	5.1%	6.0%	4.2%	3.1%	4.2%	7.3%	4.6%	4.2%	4.4%	9.2%	1.2%	3.8%

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Q.38. Do you think the government should continue to strengthen energy efficiency standards or that the market place should determine new efficiency standards?

	POLITICAL																									
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY				PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT							
	[=====]		[=====]		[=====]		[=====]				[=====]				[=====]				[=====]							
	Rght	Wrng	Dis-		Dis-		Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Egln	Lbrtn	Sttst	Pplst	Librl	Mtst		
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%	
Gov't Continue to Strengthen Energy Efficiency Standards	477	127	282	278	162	130	294	168	42	226	88	166	152	126	39	92	125	36	96	30	61	66	68	58	37	
	48%	51%	45%	58.0%	35.8%	37.5%	54.7%	39.1%	45%	55.1%	37.6%	44.3%	58.5%	36.3%	52.0%	49.5%	61.3%	42.4%	39.0%	48.4%	38.1%	63.5%	50.7%	67.4%	52.1%	
Market Place Should Determine New Efficiency Standards	461	112	299	165	267	203	208	250	44	146	132	191	94	212	34	75	67	47	138	28	92	31	53	22	32	
	46%	45%	48%	34.4%	59.1%	58.5%	38.7%	58.1%	47%	35.6%	56.4%	50.9%	36.2%	61.1%	45.3%	40.3%	32.8%	55.3%	56.1%	45.2%	57.5%	29.8%	39.6%	25.6%	45.1%	
Don't Know / Refused	62	10	43	36	23	14	35	12	8	38	14	18	14	9	2	19	12	2	12	4	7	7	13	6	2	
	6.2%	4.0%	6.9%	7.5%	5.1%	4.0%	6.5%	2.8%	8.5%	9.3%	6.0%	4.8%	5.4%	2.6%	2.7%	10.2%	5.9%	2.4%	4.9%	6.5%	4.4%	6.7%	9.7%	7.0%	2.8%	

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Q.38. Do you think the government should continue to strengthen energy efficiency standards or that the market place should determine new efficiency standards?

DEMOGRAPHICS. 1

	AGE				GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN	WHO ENTERS			# U.S. ADMITS	
	[=====]				[=====]		[=====]				[=====]			[=====]			BORN	[=====]			[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [=====]	SmeMre Leglly	More Illgly	MreThn 800K	LssThn 800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
Gov't Continue to Strengthen Energy Efficiency Standards	477	69	161	134	98	230	247	109	112	121	120	159	128	179	236	95	133	165	130	303	251	176
	47.7%	49.3%	50.0%	49.8%	39.8%	48.1%	47.3%	48.2%	46.7%	51.3%	43.6%	40.4%	47.9%	55.6%	52.2%	42.4%	45.1%	47.1%	51.4%	46.9%	47.6%	47.7%
Market Place Should Determine New Efficiency Standards	461	64	144	124	123	225	236	106	116	102	131	201	126	131	198	114	142	165	114	306	250	171
	46.1%	45.7%	44.7%	46.1%	50.0%	47.1%	45.2%	46.9%	48.3%	43.2%	47.6%	51.0%	47.2%	40.7%	43.8%	50.9%	48.1%	47.1%	45.1%	47.4%	47.4%	46.3%
Don't Know / Refused	62	7	17	11	25	23	39	11	12	13	24	34	13	12	18	15	20	20	9	37	26	22
	6.2%	5.0%	5.3%	4.1%	10.2%	4.8%	7.5%	4.9%	5.0%	5.5%	8.7%	8.6%	4.9%	3.7%	4.0%	6.7%	6.8%	5.7%	3.6%	5.7%	4.9%	6.0%

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Q. 3. Do you think the government should continue to strengthen energy efficiency standards or that the market place should determine new efficiency standards?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		\ REGION				
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]				
		White	Non-White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West / Pacific	
	TOTAL	White	White	\$25000	\$49999	\$50000 & Over	Yes	No	Prtstn	Prtstn	Prtstn	Prtstn	Prtstn	Yes	No	East	South	/Cntrl	Pacific	
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209	
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%	
Gov't Continue to Strengthen Energy Efficiency Standards	477	384	82	105	175	147	230	242	106	76	75	110	79	125	222	107	150	115	105	
	47.7%	46.1%	55.0%	43.0%	48.9%	51.4%	44.2%	51.1%	48.6%	39.8%	46.9%	46.2%	57.7%	44.0%	47.1%	52.7%	43.4%	47.5%	50.2%	
Market Place Should Determine New Efficiency Standards	461	397	59	115	164	132	258	202	104	99	75	115	50	142	225	81	171	118	91	
	46.1%	47.7%	39.6%	47.1%	45.8%	46.2%	49.6%	42.6%	47.7%	51.8%	46.9%	48.3%	36.5%	50.0%	47.8%	39.9%	49.4%	48.8%	43.5%	
Don't Know / Refused	62	52	8	24	19	7	32	30	8	16	10	13	8	17	24	15	25	9	13	
	6.2%	6.2%	5.4%	9.8%	5.3%	2.4%	6.2%	6.3%	3.7%	8.4%	6.2%	5.5%	5.8%	6.0%	5.1%	7.4%	7.2%	3.7%	6.2%	

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Q.39. How serious a threat do you think global climate change is?

	POLITICAL																											
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT										
	[=====]		[=====]		[=====]		[=====]				[=====]			[=====]				[=====]										
	Rght Wrng		Dis-		Dis-						Very Smwht			Cnsrv Mod/L Cnsrv Mod/L														
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtst			
	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71			
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%			
SERIOUS NET	709	162	456	380	274	199	417	261	73	324	129	272	217	204	55	141	170	65	148	50	105	87	98	70	53			
-----	71%	65%	73%	79.3%	60.6%	57.3%	77.7%	60.7%	78%	79.0%	55.1%	72.5%	83.5%	58.8%	73.3%	75.8%	83.3%	76.5%	60.2%	80.6%	65.6%	83.7%	73.1%	81.4%	74.6%			
Very Serious	355	74	239	197	137	98	214	112	40	173	59	121	121	86	25	67	99	34	59	30	43	48	52	39	29			
	36%	30%	38%	41.1%	30.3%	28.2%	39.9%	26.0%	43%	42.2%	25.2%	32.3%	46.5%	24.8%	33.3%	36.0%	48.5%	40.0%	24.0%	48.4%	26.9%	46.2%	38.8%	45.3%	40.8%			
Somewhat Serious	354	88	217	183	137	101	203	149	33	151	70	151	96	118	30	74	71	31	89	20	62	39	46	31	24			
	35%	35%	35%	38.2%	30.3%	29.1%	37.8%	34.7%	35%	36.8%	29.9%	40.3%	36.9%	34.0%	40.0%	39.8%	34.8%	36.5%	36.2%	32.3%	38.8%	37.5%	34.3%	36.0%	33.8%			
NOT SERIOUS NET	247	82	140	76	159	137	97	151	18	63	97	88	31	131	16	34	24	17	89	11	51	13	28	10	17			
-----	25%	33%	22%	15.9%	35.2%	39.5%	18.1%	35.1%	19%	15.4%	41.5%	23.5%	11.9%	37.8%	21.3%	18.3%	11.8%	20.0%	36.2%	17.7%	31.9%	12.5%	20.9%	11.6%	23.9%			
Not Too Serious	160	55	88	56	93	79	70	93	10	46	53	62	25	81	10	22	20	12	54	8	34	9	18	9	11			
	16%	22%	14%	11.7%	20.6%	22.8%	13.0%	21.6%	11%	11.2%	22.6%	16.5%	9.6%	23.3%	13.3%	11.8%	9.8%	14.1%	22.0%	12.9%	21.2%	8.7%	13.4%	10.5%	15.5%			
Not a Threat At All	87	27	52	20	66	58	27	58	8	17	44	26	6	50	6	12	4	5	35	3	17	4	10	1	6			
	8.7%	11%	8.3%	4.2%	14.6%	16.7%	5.0%	13.5%	8.5%	4.1%	18.8%	6.9%	2.3%	14.4%	8.0%	6.5%	2.0%	5.9%	14.2%	4.8%	10.6%	3.8%	7.5%	1.2%	8.5%			
Don't Know / Refused	44	5	28	23	19	11	23	18	3	23	8	15	12	12	4	11	10	3	9	1	4	4	8	6	1			
	4.4%	2.0%	4.5%	4.8%	4.2%	3.2%	4.3%	4.2%	3.2%	5.6%	3.4%	4.0%	4.6%	3.5%	5.3%	5.9%	4.9%	3.5%	3.7%	1.6%	2.5%	3.8%	6.0%	7.0%	1.4%			

Research / Strategy / Management

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Q.39. How serious a threat do you think global climate change is?

DEMOGRAPHICS 1																						
	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN	WHO ENTERS		# U.S. ADMITS	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	BORN GP/PTS [====]	SmeMre Leglly	More More Ilgly	MreThn 800K	LssThn 800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
SERIOUS NET	709	106	229	189	166	298	411	144	145	191	210	281	189	227	324	160	209	259	191	453	366	268
-----	70.9%	75.7%	71.1%	70.3%	67.5%	62.3%	78.7%	63.7%	60.4%	80.9%	76.4%	71.3%	70.8%	70.5%	71.7%	71.4%	70.8%	74.0%	75.5%	70.1%	69.4%	72.6%
Very Serious	355	59	116	92	79	158	197	79	75	96	96	126	104	119	173	76	96	135	97	221	172	143
	35.5%	42.1%	36.0%	34.2%	32.1%	33.1%	37.7%	35.0%	31.2%	40.7%	34.9%	32.0%	39.0%	37.0%	38.3%	33.9%	32.5%	38.6%	38.3%	34.2%	32.6%	38.8%
Somewhat Serious	354	47	113	97	87	140	214	65	70	95	114	155	85	108	151	84	113	124	94	232	194	125
	35.4%	33.6%	35.1%	36.1%	35.4%	29.3%	41.0%	28.8%	29.2%	40.3%	41.5%	39.3%	31.8%	33.5%	33.4%	37.5%	38.3%	35.4%	37.2%	35.9%	36.8%	33.9%
NOT SERIOUS NET	247	31	83	74	55	164	83	78	83	36	46	87	70	86	118	49	76	77	53	169	145	87
-----	24.7%	22.1%	25.8%	27.5%	22.4%	34.3%	15.9%	34.5%	34.6%	15.3%	16.7%	22.1%	26.2%	26.7%	26.1%	21.9%	25.8%	22.0%	20.9%	26.2%	27.5%	23.6%
Not Too Serious	160	22	51	45	40	100	60	45	53	28	32	58	45	55	71	38	49	51	41	105	95	55
	16.0%	15.7%	15.8%	16.7%	16.3%	20.9%	11.5%	19.9%	22.1%	11.9%	11.6%	14.7%	16.9%	17.1%	15.7%	17.0%	16.6%	14.6%	16.2%	16.3%	18.0%	14.9%
Not a Threat At All	87	9	32	29	15	64	23	33	30	8	14	29	25	31	47	11	27	26	12	64	50	32
	8.7%	6.4%	9.9%	10.8%	6.1%	13.4%	4.4%	14.6%	12.5%	3.4%	5.1%	7.4%	9.4%	9.6%	10.4%	4.9%	9.2%	7.4%	4.7%	9.9%	9.5%	8.7%
Don't Know / Refused	44	3	10	6	25	16	28	4	12	9	19	26	8	9	10	15	10	14	9	24	16	14
	4.4%	2.1%	3.1%	2.2%	10.2%	3.3%	5.4%	1.8%	5.0%	3.8%	6.9%	6.6%	3.0%	2.8%	2.2%	6.7%	3.4%	4.0%	3.6%	3.7%	3.0%	3.8%

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Q.39. How serious a threat do you think global climate change is?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
		Non-White	White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwest /Cntrl	West / Pacific
	TOTAL	White	White	\$25000	-49999	& Over	Yes	No	Prtstn	Baptst	Prtstn	Cathlc	/ None	Yes	No	East	South	/Cntrl	Pacific
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
SERIOUS NET	709	578	117	185	249	198	353	350	155	131	98	177	109	193	336	155	227	173	154
-----	70.9%	69.4%	78.5%	75.8%	69.6%	69.2%	67.9%	73.8%	71.1%	68.6%	61.2%	74.4%	79.6%	68.0%	71.3%	76.4%	65.6%	71.5%	73.7%
Very Serious	355	274	73	95	129	87	183	170	72	58	49	87	62	82	168	80	116	75	84
	35.5%	32.9%	49.0%	38.9%	36.0%	30.4%	35.2%	35.9%	33.0%	30.4%	30.6%	36.6%	45.3%	28.9%	35.7%	39.4%	33.5%	31.0%	40.2%
Somewhat Serious	354	304	44	90	120	111	170	180	83	73	49	90	47	111	168	75	111	98	70
	35.4%	36.5%	29.5%	36.9%	33.5%	38.8%	32.7%	38.0%	38.1%	38.2%	30.6%	37.8%	34.3%	39.1%	35.7%	36.9%	32.1%	40.5%	33.5%
NOT SERIOUS NET	247	220	24	44	99	82	141	106	54	52	57	51	22	82	116	43	95	63	46
-----	24.7%	26.4%	16.1%	18.0%	27.7%	28.7%	27.1%	22.4%	24.8%	27.2%	35.6%	21.4%	16.1%	28.9%	24.6%	21.2%	27.5%	26.0%	22.0%
Not Too Serious	160	143	16	29	60	56	92	68	32	36	37	35	13	50	79	32	59	41	28
	16.0%	17.2%	10.7%	11.9%	16.8%	19.6%	17.7%	14.3%	14.7%	18.8%	23.1%	14.7%	9.5%	17.6%	16.8%	15.8%	17.1%	16.9%	13.4%
Not a Threat At All	87	77	8	15	39	26	49	38	22	16	20	16	9	32	37	11	36	22	18
	8.7%	9.2%	5.4%	6.1%	10.9%	9.1%	9.4%	8.0%	10.1%	8.4%	12.5%	6.7%	6.6%	11.3%	7.9%	5.4%	10.4%	9.1%	8.6%
Don't Know / Refused	44	35	8	15	10	6	26	18	9	8	5	10	6	9	19	5	24	6	9
	4.4%	4.2%	5.4%	6.1%	2.8%	2.1%	5.0%	3.8%	4.1%	4.2%	3.1%	4.2%	4.4%	3.2%	4.0%	2.5%	6.9%	2.5%	4.3%

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Q.40. Do you think we should do something to reduce our dependency on foreign oil or do you think oil imports are not a serious problem and we shouldn't really worry about it?

	POLITICAL																									
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT								
	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]
	Right	Wrng		Dis-		Dis-					Very	Smwht		Cnsrv	Mod/L	Cnsrv	Mod/L									
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Egltn	Lbrtn	Sttst	Pplst	Librl	Mtlst	
	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%	
We Should Do Something to Reduce Dependency on Foreign Oil	748	189	469	359	336	248	416	322	68	305	162	298	198	263	56	139	156	59	176	47	128	81	101	61	58	
	75%	76%	75%	74.9%	74.3%	71.5%	77.5%	74.9%	72%	74.4%	69.2%	79.5%	76.2%	75.8%	74.7%	74.7%	76.5%	69.4%	71.5%	75.8%	80.0%	77.9%	75.4%	70.9%	81.7%	
Oil Imports are not a Serious Problem	199	53	127	95	92	80	98	88	20	79	61	68	44	72	14	41	33	22	55	15	23	18	26	20	11	
	20%	21%	20%	19.8%	20.4%	23.1%	18.2%	20.5%	21%	19.3%	26.1%	18.1%	16.9%	20.7%	18.7%	22.0%	16.2%	25.9%	22.4%	24.2%	14.4%	17.3%	19.4%	23.3%	15.5%	
Don't Know / Refused	53	7	28	25	24	19	23	20	6	26	11	9	18	12	5	6	15	4	15	-	9	5	7	5	2	
	5.3%	2.8%	4.5%	5.2%	5.3%	5.5%	4.3%	4.7%	6.4%	6.3%	4.7%	2.4%	6.9%	3.5%	6.7%	3.2%	7.4%	4.7%	6.1%		5.6%	4.8%	5.2%	5.8%	2.8%	

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Q.40. Do you think we should do something to reduce our dependency on foreign oil or do you think oil imports are not a serious problem and we shouldn't really worry about it?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS		# U.S. ADMITS	
	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [====]	SmeMre Leglly	More More Ilgly	MreThn 800K	LssThn 800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
We Should Do Something to Reduce Dependency on Foreign Oil	748	101	237	219	177	346	402	155	183	183	213	294	201	243	354	153	224	280	192	485	399	270
	74.8%	72.1%	73.6%	81.4%	72.0%	72.4%	77.0%	68.6%	76.2%	77.5%	77.5%	74.6%	75.3%	75.5%	78.3%	68.3%	75.9%	80.0%	75.9%	75.1%	75.7%	73.2%
Oil Imports are not a Serious Problem	199	33	70	40	48	116	83	66	46	37	42	77	54	63	80	58	57	53	47	131	106	77
	19.9%	23.6%	21.7%	14.9%	19.5%	24.3%	15.9%	29.2%	19.2%	15.7%	15.3%	19.5%	20.2%	19.6%	17.7%	25.9%	19.3%	15.1%	18.6%	20.3%	20.1%	20.9%
Don't Know / Refused	53	6	15	10	21	16	37	5	11	16	20	23	12	16	18	13	14	17	14	30	22	22
	5.3%	4.3%	4.7%	3.7%	8.5%	3.3%	7.1%	2.2%	4.6%	6.8%	7.3%	5.8%	4.5%	5.0%	4.0%	5.8%	4.7%	4.9%	5.5%	4.6%	4.2%	6.0%

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Q.40. Do you think we should do something to reduce our dependency on foreign oil or do you think oil imports are not a serious problem and we shouldn't really worry about it?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION				BORN AGAIN		REGION				
	[=====]			[=====]			[=====]		[=====]				[=====]		[=====]				
		Non-White	White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West Pacific
	TOTAL	White	White	\$25000	-49999	& Over	Yes	No	Prtstn	Baptst	Prtstn	Cathlc	/ None	Yes	No	East	South	/Cntrl	Pacific
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
We Should Do Something to Reduce Dependency on Foreign Oil	748	635	102	177	278	218	392	352	168	138	115	185	106	216	356	153	252	194	149
	74.8%	76.2%	68.5%	72.5%	77.7%	76.2%	75.4%	74.3%	77.1%	72.3%	71.9%	77.7%	77.4%	76.1%	75.6%	75.4%	72.8%	80.2%	71.3%
Oil Imports are not a Serious Problem	199	156	38	53	68	57	99	99	37	45	33	46	26	56	92	40	65	45	49
	19.9%	18.7%	25.5%	21.7%	19.0%	19.9%	19.0%	20.9%	17.0%	23.6%	20.6%	19.3%	19.0%	19.7%	19.5%	19.7%	18.8%	18.6%	23.4%
Don't Know / Refused	53	42	9	14	12	11	29	23	13	8	12	7	5	12	23	10	29	3	11
	5.3%	5.0%	6.0%	5.7%	3.4%	3.8%	5.6%	4.9%	6.0%	4.2%	7.5%	2.9%	3.6%	4.2%	4.9%	4.9%	8.4%	1.2%	5.3%

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Q.41. Do you favor or oppose opening the Arctic National Wildlife Refuge for oil and gas development?

	POLITICAL																									
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT								
	[=====]		[=====]		[=====]		[=====]				[=====]			[=====]				[=====]								
	Right	Wrng		Dis-		Dis-					Very	Smt			Mod/L	Mod/L										
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtst	
TOTAL	748	189	469	359	336	248	416	322	68	305	162	298	198	263	56	139	156	59	176	47	128	81	101	61	58	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	100%	25%	63%	48.0%	44.9%	33.2%	55.6%	43.0%	9.1%	40.8%	21.7%	39.8%	26.5%	35.2%	7.5%	18.6%	20.9%	7.9%	23.5%	6.3%	17.1%	10.8%	13.5%	8.2%	7.8%	
FAVOR NET	232	71	142	89	130	103	107	130	12	79	67	97	47	110	19	42	31	13	70	13	42	28	36	10	11	
-----	31%	38%	30%	24.8%	38.7%	41.5%	25.7%	40.4%	18%	25.9%	41.4%	32.6%	23.7%	41.8%	33.9%	30.2%	19.9%	22.0%	39.8%	27.7%	32.8%	34.6%	35.6%	16.4%	19.0%	
Strongly Favor	91	29	58	31	55	38	44	43	8	33	32	31	20	37	6	17	13	4	25	5	14	13	14	8	3	
	12%	15%	12%	8.6%	16.4%	15.3%	10.6%	13.4%	12%	10.8%	19.8%	10.4%	10.1%	14.1%	10.7%	12.2%	8.3%	6.8%	14.2%	10.6%	10.9%	16.0%	13.9%	13.1%	5.2%	
Somewhat Favor	141	42	84	58	75	65	63	87	4	46	35	66	27	73	13	25	18	9	45	8	28	15	22	2	8	
	19%	22%	18%	16.2%	22.3%	26.2%	15.1%	27.0%	5.9%	15.1%	21.6%	22.1%	13.6%	27.8%	23.2%	18.0%	11.5%	15.3%	25.6%	17.0%	21.9%	18.5%	21.8%	3.3%	13.8%	
OPPOSE NET	465	112	290	249	183	127	283	172	49	206	82	180	145	135	35	85	118	39	89	32	83	48	59	49	41	
-----	62%	59%	62%	69.4%	54.5%	51.2%	68.0%	53.4%	72%	67.5%	50.6%	60.4%	73.2%	51.3%	62.5%	61.2%	75.6%	66.1%	50.6%	68.1%	64.8%	59.3%	58.4%	80.3%	70.7%	
Somewhat Oppose	130	38	74	61	55	39	70	63	11	48	24	62	28	51	11	24	24	11	30	4	28	9	18	10	13	
	17%	20%	16%	17.0%	16.4%	15.7%	16.8%	19.6%	16%	15.7%	14.8%	20.8%	14.1%	19.4%	19.6%	17.3%	15.4%	18.6%	17.0%	8.5%	21.9%	11.1%	17.8%	16.4%	22.4%	
Strongly Oppose	335	74	216	188	128	88	213	109	38	158	58	118	117	84	24	61	94	28	59	28	55	39	41	39	28	
	45%	39%	46%	52.4%	38.1%	35.5%	51.2%	33.9%	56%	51.8%	35.8%	39.6%	59.1%	31.9%	42.9%	43.9%	60.3%	47.5%	33.5%	59.6%	43.0%	48.1%	40.6%	63.9%	48.3%	
Don't Know /	51	6	37	21	23	18	26	20	7	20	13	21	6	18	2	12	7	7	17	2	3	5	6	2	6	
Refused	6.8%	3.2%	7.9%	5.8%	6.8%	7.3%	6.2%	6.2%	10%	6.6%	8.0%	7.0%	3.0%	6.8%	3.6%	8.6%	4.5%	11.9%	9.7%	4.3%	2.3%	6.2%	5.9%	3.3%	10.3%	

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Q.41. Do you favor or oppose opening the Arctic National Wildlife Refuge for oil and gas development?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN	WHO ENTERS		# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			BORN	[=====]		[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male	Male	Female	Female	H.S.	Some	Collge	Good	Can't	Bad	GP/PTS	SmeMre	More	MreThn	LssThn
								< 45	45 +	< 45	45 +	Gradte	Collge	Gradte		Say		[=====]	Leglly	Illgly	800K	800K
TOTAL	748	101	237	219	177	346	402	155	183	183	213	294	201	243	354	153	224	280	192	485	399	270
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	13.5%	31.7%	29.3%	23.7%	46.3%	53.7%	20.7%	24.5%	24.5%	28.5%	39.3%	26.9%	32.5%	47.3%	20.5%	29.9%	37.4%	25.7%	64.8%	53.3%	36.1%
FAVOR NET	232	28	63	64	74	124	108	48	73	43	65	103	56	71	111	40	74	89	61	157	133	78
-----	31.0%	27.7%	26.6%	29.2%	41.8%	35.8%	26.9%	31.0%	39.9%	23.5%	30.5%	35.0%	27.9%	29.2%	31.4%	26.1%	33.0%	31.8%	31.8%	32.4%	33.3%	28.9%
Strongly Favor	91	9	18	27	34	51	40	13	35	14	26	44	19	27	41	13	34	32	25	62	53	29
	12.2%	8.9%	7.6%	12.3%	19.2%	14.7%	10.0%	8.4%	19.1%	7.7%	12.2%	15.0%	9.5%	11.1%	11.6%	8.5%	15.2%	11.4%	13.0%	12.8%	13.3%	10.7%
Somewhat Favor	141	19	45	37	40	73	68	35	38	29	39	59	37	44	70	27	40	57	36	95	80	49
	18.9%	18.8%	19.0%	16.9%	22.6%	21.1%	16.9%	22.6%	20.8%	15.8%	18.3%	20.1%	18.4%	18.1%	19.8%	17.6%	17.9%	20.4%	18.8%	19.6%	20.1%	18.1%
OPPOSE NET	465	66	168	133	88	208	257	104	99	130	122	167	129	161	221	101	135	171	120	301	246	176
-----	62.2%	65.3%	70.9%	60.7%	49.7%	60.1%	63.9%	67.1%	54.1%	71.0%	57.3%	56.8%	64.2%	66.3%	62.4%	66.0%	60.3%	61.1%	62.5%	62.1%	61.7%	65.2%
Somewhat Oppose	130	17	55	31	24	61	69	35	24	37	31	53	32	41	51	34	42	49	34	85	72	44
	17.4%	16.8%	23.2%	14.2%	13.6%	17.6%	17.2%	22.6%	13.1%	20.2%	14.6%	18.0%	15.9%	16.9%	14.4%	22.2%	18.8%	17.5%	17.7%	17.5%	18.0%	16.3%
Strongly Oppose	335	49	113	102	64	147	188	69	75	93	91	114	97	120	170	67	93	122	86	216	174	132
	44.8%	48.5%	47.7%	46.6%	36.2%	42.5%	46.8%	44.5%	41.0%	50.8%	42.7%	38.8%	48.3%	49.4%	48.0%	43.8%	41.5%	43.6%	44.8%	44.5%	43.6%	48.9%
Don't Know / Refused	51	7	6	22	15	14	37	3	11	10	26	24	16	11	22	12	15	20	11	27	20	16
	6.8%	6.9%	2.5%	10.0%	8.5%	4.0%	9.2%	1.9%	6.0%	5.5%	12.2%	8.2%	8.0%	4.5%	6.2%	7.8%	6.7%	7.1%	5.7%	5.6%	5.0%	5.9%

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Q.41. Do you favor or oppose opening the Arctic National Wildlife Refuge for oil and gas development?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
	TOTAL	White	Non-White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West / Pacific
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL	748	635	102	177	278	218	392	352	168	138	115	185	106	216	356	153	252	194	149
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	84.9%	13.6%	23.7%	37.2%	29.1%	52.4%	47.1%	22.5%	18.4%	15.4%	24.7%	14.2%	28.9%	47.6%	20.5%	33.7%	25.9%	19.9%
FAVOR NET	232	192	38	61	74	73	132	99	59	50	32	66	18	72	121	51	77	63	41
-----	31.0%	30.2%	37.3%	34.5%	26.6%	33.5%	33.7%	28.1%	35.1%	36.2%	27.8%	35.7%	17.0%	33.3%	34.0%	33.3%	30.6%	32.5%	27.5%
Strongly Favor	91	72	17	27	32	22	57	33	15	24	20	21	7	30	44	24	32	18	17
	12.2%	11.3%	16.7%	15.3%	11.5%	10.1%	14.5%	9.4%	8.9%	17.4%	17.4%	11.4%	6.6%	13.9%	12.4%	15.7%	12.7%	9.3%	11.4%
Somewhat Favor	141	120	21	34	42	51	75	66	44	26	12	45	11	42	77	27	45	45	24
	18.9%	18.9%	20.6%	19.2%	15.1%	23.4%	19.1%	18.8%	26.2%	18.8%	10.4%	24.3%	10.4%	19.4%	21.6%	17.6%	17.9%	23.2%	16.1%
OPPOSE NET	465	403	54	99	191	130	228	234	96	79	76	105	82	127	212	96	150	117	102
-----	62.2%	63.5%	52.9%	55.9%	68.7%	59.6%	58.2%	66.5%	57.1%	57.2%	66.1%	56.8%	77.4%	58.8%	59.6%	62.7%	59.5%	60.3%	68.5%
Somewhat Oppose	130	112	15	26	53	44	62	67	27	28	24	32	15	47	62	27	51	28	24
	17.4%	17.6%	14.7%	14.7%	19.1%	20.2%	15.8%	19.0%	16.1%	20.3%	20.9%	17.3%	14.2%	21.8%	17.4%	17.6%	20.2%	14.4%	16.1%
Strongly Oppose	335	291	39	73	138	86	166	167	69	51	52	73	67	80	150	69	99	89	78
	44.8%	45.8%	38.2%	41.2%	49.6%	39.4%	42.3%	47.4%	41.1%	37.0%	45.2%	39.5%	63.2%	37.0%	42.1%	45.1%	39.3%	45.9%	52.3%
Don't Know / Refused	51	40	10	17	13	15	32	19	13	9	7	14	6	17	23	6	25	14	6
	6.8%	6.3%	9.8%	9.6%	4.7%	6.9%	8.2%	5.4%	7.7%	6.5%	6.1%	7.6%	5.7%	7.9%	6.5%	3.9%	9.9%	7.2%	4.0%

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Q.42. Do you favor or oppose improving the fuel efficiency of cars and light trucks?

POLITICAL

	DIRECTION [=====]			CLINTON [=====]		GINGRICH [=====]		PARTY ID [=====]			IDEOLOGY [=====]			PARTY ID/IDEOLOGY [=====]				ROLE OF GOVERNMENT [=====]									
	Right	Wrong		Dis-	Dis-	Dis-	Dis-	Rep/	Ind	Dem	Cons	Mod	Lib	Rep/	Mod	Dem	Mod	Mod	Mod	Mod	Mod	Mod	Mod	Mod	Mod	Mod	
TOTAL	Trck	Trck		Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Egltn	Lbrtn	Sttst	Pplst	Librl	Mtltst		
TOTAL	748	189	469	359	336	248	416	322	68	305	162	298	198	263	56	139	156	59	176	47	128	81	101	61	58		
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
	100%	25%	63%	48.0%	44.9%	33.2%	55.6%	43.0%	9.1%	40.8%	21.7%	39.8%	26.5%	35.2%	7.5%	18.6%	20.9%	7.9%	23.5%	6.3%	17.1%	10.8%	13.5%	8.2%	7.8%		
FAVOR NET	702	179	437	341	313	235	393	302	62	289	151	276	188	247	52	128	151	58	163	46	123	77	88	60	54		
-----	94%	95%	93%	95.0%	93.2%	94.8%	94.5%	93.8%	91%	94.8%	93.2%	92.6%	94.9%	93.9%	92.9%	92.1%	96.8%	98.3%	92.6%	97.9%	96.1%	95.1%	87.1%	98.4%	93.1%		
Strongly Favor	560	133	360	280	242	176	325	227	51	240	112	213	159	179	46	102	130	47	127	44	87	62	69	54	44		
	75%	70%	77%	78.0%	72.0%	71.0%	78.1%	70.5%	75%	78.7%	69.1%	71.5%	80.3%	68.1%	82.1%	73.4%	83.3%	79.7%	72.2%	93.6%	68.0%	76.5%	68.3%	88.5%	75.9%		
Somewhat Favor	142	46	77	61	71	59	68	75	11	49	39	63	29	68	6	26	21	11	36	2	36	15	19	6	10		
	19%	24%	16%	17.0%	21.1%	23.8%	16.3%	23.3%	16%	16.1%	24.1%	21.1%	14.6%	25.9%	10.7%	18.7%	13.5%	18.6%	20.5%	4.3%	28.1%	18.5%	18.8%	9.8%	17.2%		
OPPOSE NET	38	8	28	16	19	11	19	16	5	13	10	17	8	13	3	9	4	-	11	1	4	3	11	1	3		
-----	5.1%	4.2%	6.0%	4.5%	5.7%	4.4%	4.6%	5.0%	7.4%	4.3%	6.2%	5.7%	4.0%	4.9%	5.4%	6.5%	2.6%	-	6.2%	2.1%	3.1%	3.7%	10.9%	1.6%	5.2%		
Somewhat Oppose	24	5	17	9	14	9	13	13	2	8	8	10	6	11	2	4	4	-	8	-	2	2	7	-	3		
	3.2%	2.6%	3.6%	2.5%	4.2%	3.6%	3.1%	4.0%	2.9%	2.6%	4.9%	3.4%	3.0%	4.2%	3.6%	2.9%	2.6%	-	4.5%	-	1.6%	2.5%	6.9%	-	5.2%		
Strongly Oppose	14	3	11	7	5	2	6	3	3	5	2	7	2	2	1	5	-	-	3	1	2	1	4	1	-		
	1.9%	1.6%	2.3%	1.9%	1.5%	0.8%	1.4%	0.9%	4.4%	1.6%	1.2%	2.3%	1.0%	0.8%	1.8%	3.6%	-	-	1.7%	2.1%	1.6%	1.2%	4.0%	1.6%	-		
Don't Know / Refused	8	2	4	2	4	2	4	4	1	3	1	5	2	3	1	2	1	1	2	-	1	1	2	-	1		
	1.1%	1.1%	0.9%	0.6%	1.2%	0.8%	1.0%	1.2%	1.5%	1.0%	0.6%	1.7%	1.0%	1.1%	1.8%	1.4%	0.6%	1.7%	1.1%	-	0.8%	1.2%	2.0%	-	1.7%		

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Q.42. Do you favor or oppose improving the fuel efficiency of cars and light trucks?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREGN BORN	WHO ENTERS			# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			BORN	[=====]			[=====]	
																		GP/PTS	SmeMre	More	MreThn	LssThn	
	TOTAL	18-29	30-44	45-59	60+	Male	Femle	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	[=====]	Leglly	Ilgly	800K	800K	
TOTAL	748	101	237	219	177	346	402	155	183	183	213	294	201	243	354	153	224	280	192	485	399	270	
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	100%	13.5%	31.7%	29.3%	23.7%	46.3%	53.7%	20.7%	24.5%	24.5%	28.5%	39.3%	26.9%	32.5%	47.3%	20.5%	29.9%	37.4%	25.7%	64.8%	53.3%	36.1%	
FAVOR NET	702	96	222	206	165	321	381	145	169	173	202	268	191	233	337	143	205	266	181	451	380	252	
-----	93.9%	95.0%	93.7%	94.1%	93.2%	92.8%	94.8%	93.5%	92.3%	94.5%	94.8%	91.2%	95.0%	95.9%	95.2%	93.5%	91.5%	95.0%	94.3%	93.0%	95.2%	93.3%	
Strongly Favor	560	83	173	174	119	251	309	113	133	143	160	208	155	189	268	106	172	214	144	363	304	199	
	74.9%	82.2%	73.0%	79.5%	67.2%	72.5%	76.9%	72.9%	72.7%	78.1%	75.1%	70.7%	77.1%	77.8%	75.7%	69.3%	76.8%	76.4%	75.0%	74.8%	76.2%	73.7%	
Somewhat Favor	142	13	49	32	46	70	72	32	36	30	42	60	36	44	69	37	33	52	37	88	76	53	
	19.0%	12.9%	20.7%	14.6%	26.0%	20.2%	17.9%	20.6%	19.7%	16.4%	19.7%	20.4%	17.9%	18.1%	19.5%	24.2%	14.7%	18.6%	19.3%	18.1%	19.0%	19.6%	
OPPOSE NET	38	4	13	12	8	23	15	10	12	7	8	22	8	8	13	10	15	10	8	30	17	15	
-----	5.1%	4.0%	5.5%	5.5%	4.5%	6.6%	3.7%	6.5%	6.6%	3.8%	3.8%	7.5%	4.0%	3.3%	3.7%	6.5%	6.7%	3.6%	4.2%	6.2%	4.3%	5.6%	
Somewhat Oppose	24	2	9	8	5	15	9	7	8	4	5	12	5	7	10	5	9	5	7	17	11	9	
	3.2%	2.0%	3.8%	3.7%	2.8%	4.3%	2.2%	4.5%	4.4%	2.2%	2.3%	4.1%	2.5%	2.9%	2.8%	3.3%	4.0%	1.8%	3.6%	3.5%	2.8%	3.3%	
Strongly Oppose	14	2	4	4	3	8	6	3	4	3	3	10	3	1	3	5	6	5	1	13	6	6	
	1.9%	2.0%	1.7%	1.8%	1.7%	2.3%	1.5%	1.9%	2.2%	1.6%	1.4%	3.4%	1.5%	0.4%	0.8%	3.3%	2.7%	1.8%	0.5%	2.7%	1.5%	2.2%	
Don't Know / Refused	8	1	2	1	4	2	6	-	2	3	3	4	2	2	4	-	4	4	3	4	2	3	
	1.1%	1.0%	0.8%	0.5%	2.3%	0.6%	1.5%		1.1%	1.6%	1.4%	1.4%	1.0%	0.8%	1.1%		1.8%	1.4%	1.6%	0.8%	0.5%	1.1%	

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Q.42. Do you favor or oppose improving the fuel efficiency of cars and light trucks?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION				BORN AGAIN		REGION				
	[=====]			[=====]			[=====]		[=====]				[=====]		[=====]				
	TOTAL	White	Non-White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West / Pacific
TOTAL	748	635	102	177	278	218	392	352	168	138	115	185	106	216	356	153	252	194	149
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	84.9%	13.6%	23.7%	37.2%	29.1%	52.4%	47.1%	22.5%	18.4%	15.4%	24.7%	14.2%	28.9%	47.6%	20.5%	33.7%	25.9%	19.9%
FAVOR NET	702	597	96	168	260	204	363	335	162	128	110	166	103	206	331	142	233	181	146
-----	93.9%	94.0%	94.1%	94.9%	93.5%	93.6%	92.6%	95.2%	96.4%	92.8%	95.7%	89.7%	97.2%	95.4%	93.0%	92.8%	92.5%	93.3%	98.0%
Strongly Favor	560	478	74	141	204	158	297	259	125	98	82	135	90	148	268	116	183	142	119
	74.9%	75.3%	72.5%	79.7%	73.4%	72.5%	75.8%	73.6%	74.4%	71.0%	71.3%	73.0%	84.9%	68.5%	75.3%	75.8%	72.6%	73.2%	79.9%
Somewhat Favor	142	119	22	27	56	46	66	76	37	30	28	31	13	58	63	26	50	39	27
	19.0%	18.7%	21.6%	15.3%	20.1%	21.1%	16.8%	21.6%	22.0%	21.7%	24.3%	16.8%	12.3%	26.9%	17.7%	17.0%	19.8%	20.1%	18.1%
OPPOSE NET	38	31	5	5	17	11	24	14	6	8	5	13	3	9	20	8	16	12	2
-----	5.1%	4.9%	4.9%	2.8%	6.1%	5.0%	6.1%	4.0%	3.6%	5.8%	4.3%	7.0%	2.8%	4.2%	5.6%	5.2%	6.3%	6.2%	1.3%
Somewhat Oppose	24	18	5	3	13	8	16	8	3	6	4	7	3	6	14	5	10	7	2
	3.2%	2.8%	4.9%	1.7%	4.7%	3.7%	4.1%	2.3%	1.8%	4.3%	3.5%	3.8%	2.8%	2.8%	3.9%	3.3%	4.0%	3.6%	1.3%
Strongly Oppose	14	13	-	2	4	3	8	6	3	2	1	6	-	3	6	3	6	5	-
	1.9%	2.0%		1.1%	1.4%	1.4%	2.0%	1.7%	1.8%	1.4%	0.9%	3.2%		1.4%	1.7%	2.0%	2.4%	2.6%	
Don't Know / Refused	8	7	1	4	1	3	5	3	-	2	-	6	-	1	5	3	3	1	1
	1.1%	1.1%	1.0%	2.3%	0.4%	1.4%	1.3%	0.9%		1.4%		3.2%		0.5%	1.4%	2.0%	1.2%	0.5%	0.7%

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Q.43. Do you favor or oppose supporting the development of renewable energy alternatives to oil?

POLITICAL

	DIRECTION			CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT									
	[=====]			[=====]		[=====]		[=====]				[=====]			[=====]				[=====]									
	Rght	Wrng		Dis-		Dis-					Very	Smwht		Cnsrv	Mod/L	Cnsrv	Mod/L	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mtst			
TOTAL	Trck	Trck		Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr											
	----	----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			
TOTAL	748	189	469	359	336	248	416	322	68	305	162	298	198	263	56	139	156	59	176	47	128	81	101	61	58			
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
	100%	25%	63%	48.0%	44.9%	33.2%	55.6%	43.0%	9.1%	40.8%	21.7%	39.8%	26.5%	35.2%	7.5%	18.6%	20.9%	7.9%	23.5%	6.3%	17.1%	10.8%	13.5%	8.2%	7.8%			
FAVOR NET	676	178	419	334	295	225	376	287	57	285	145	270	181	236	49	130	146	55	155	44	114	73	92	58	52			
-----	90%	94%	89%	93.0%	87.8%	90.7%	90.4%	89.1%	84%	93.4%	89.5%	90.6%	91.4%	89.7%	87.5%	93.5%	93.6%	93.2%	88.1%	93.6%	89.1%	90.1%	91.1%	95.1%	89.7%			
Strongly Favor	497	133	307	247	217	160	293	198	45	217	100	197	136	162	35	95	115	39	117	34	87	53	62	46	37			
	66%	70%	65%	68.8%	64.6%	64.5%	70.4%	61.5%	66%	71.1%	61.7%	66.1%	68.7%	61.6%	62.5%	68.3%	73.7%	66.1%	66.5%	72.3%	68.0%	65.4%	61.4%	75.4%	63.8%			
Somewhat Favor	179	45	112	87	78	65	83	89	12	68	45	73	45	74	14	35	31	16	38	10	27	20	30	12	15			
	24%	24%	24%	24.2%	23.2%	26.2%	20.0%	27.6%	18%	22.3%	27.8%	24.5%	22.7%	28.1%	25.0%	25.2%	19.9%	27.1%	21.6%	21.3%	21.1%	24.7%	29.7%	19.7%	25.9%			
OPPOSE NET	47	8	34	18	27	15	27	23	8	11	9	16	16	15	7	3	7	2	11	3	11	6	5	3	5			
-----	6.3%	4.2%	7.2%	5.0%	8.0%	6.0%	6.5%	7.1%	12%	3.6%	5.6%	5.4%	8.1%	5.7%	12.5%	2.2%	4.5%	3.4%	6.2%	6.4%	8.6%	7.4%	5.0%	4.9%	8.6%			
Somewhat Oppose	31	5	22	12	17	13	16	15	4	7	4	10	11	9	5	1	5	1	7	1	8	4	2	3	5			
	4.1%	2.6%	4.7%	3.3%	5.1%	5.2%	3.8%	4.7%	5.9%	2.3%	2.5%	3.4%	5.6%	3.4%	8.9%	0.7%	3.2%	1.7%	4.0%	2.1%	6.2%	4.9%	2.0%	4.9%	8.6%			
Strongly Oppose	16	3	12	6	10	2	11	8	4	4	5	6	5	6	2	2	2	1	4	2	3	2	3	-	-			
	2.1%	1.6%	2.6%	1.7%	3.0%	0.8%	2.6%	2.5%	5.9%	1.3%	3.1%	2.0%	2.5%	2.3%	3.6%	1.4%	1.3%	1.7%	2.3%	4.3%	2.3%	2.5%	3.0%					
Don't Know /	25	3	16	7	14	8	13	12	3	9	8	12	1	12	-	6	3	2	10	-	3	2	4	-	1			
Refused	3.3%	1.6%	3.4%	1.9%	4.2%	3.2%	3.1%	3.7%	4.4%	3.0%	4.9%	4.0%	0.5%	4.6%		4.3%	1.9%	3.4%	5.7%		2.3%	2.5%	4.0%		1.7%			

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Q.43. Do you favor or oppose supporting the development of renewable energy alternatives to oil?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS		# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			BORN	[=====]		[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [=====]	SmeMre Leglly	More Ilgly	MreThn 800K	LssThn 800K
TOTAL	748	101	237	219	177	346	402	155	183	183	213	294	201	243	354	153	224	280	192	485	399	270
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	13.5%	31.7%	29.3%	23.7%	46.3%	53.7%	20.7%	24.5%	24.5%	28.5%	39.3%	26.9%	32.5%	47.3%	20.5%	29.9%	37.4%	25.7%	64.8%	53.3%	36.1%
FAVOR NET	676	91	222	203	146	322	354	147	167	166	182	250	190	229	330	138	193	256	179	432	356	249
-----	90.4%	90.1%	93.7%	92.7%	82.5%	93.1%	88.1%	94.8%	91.3%	90.7%	85.4%	85.0%	94.5%	94.2%	93.2%	90.2%	86.2%	91.4%	93.2%	89.1%	89.2%	92.2%
Strongly Favor	497	65	166	153	100	243	254	110	126	121	127	156	152	184	264	89	132	195	131	315	265	181
	66.4%	64.4%	70.0%	69.9%	56.5%	70.2%	63.2%	71.0%	68.9%	66.1%	59.6%	53.1%	75.6%	75.7%	74.6%	58.2%	58.9%	69.6%	68.2%	64.9%	66.4%	67.0%
Somewhat Favor	179	26	56	50	46	79	100	37	41	45	55	94	38	45	66	49	61	61	48	117	91	68
	23.9%	25.7%	23.6%	22.8%	26.0%	22.8%	24.9%	23.9%	22.4%	24.6%	25.8%	32.0%	18.9%	18.5%	18.6%	32.0%	27.2%	21.8%	25.0%	24.1%	22.8%	25.2%
OPPOSE NET	47	8	11	13	15	21	26	8	13	11	15	28	7	9	15	8	24	15	8	36	31	12
-----	6.3%	7.9%	4.6%	5.9%	8.5%	6.1%	6.5%	5.2%	7.1%	6.0%	7.0%	9.5%	3.5%	3.7%	4.2%	5.2%	10.7%	5.4%	4.2%	7.4%	7.8%	4.4%
Somewhat Oppose	31	6	7	9	9	11	20	5	6	8	12	22	3	4	8	7	16	6	5	24	22	6
	4.1%	5.9%	3.0%	4.1%	5.1%	3.2%	5.0%	3.2%	3.3%	4.4%	5.6%	7.5%	1.5%	1.6%	2.3%	4.6%	7.1%	2.1%	2.6%	4.9%	5.5%	2.2%
Strongly Oppose	16	2	4	4	6	10	6	3	7	3	3	6	4	5	7	1	8	9	3	12	9	6
	2.1%	2.0%	1.7%	1.8%	3.4%	2.9%	1.5%	1.9%	3.8%	1.6%	1.4%	2.0%	2.0%	2.1%	2.0%	0.7%	3.6%	3.2%	1.6%	2.5%	2.3%	2.2%
Don't Know / Refused	25	2	4	3	16	3	22	-	3	6	16	16	4	5	9	7	7	9	5	17	12	9
	3.3%	2.0%	1.7%	1.4%	9.0%	0.9%	5.5%		1.6%	3.3%	7.5%	5.4%	2.0%	2.1%	2.5%	4.6%	3.1%	3.2%	2.6%	3.5%	3.0%	3.3%

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Q.43. Do you favor or oppose supporting the development of renewable energy alternatives to oil?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
		Non-		Under	\$25000	\$50000			High		Other		N-Chrs			North-		Midst	West /
	TOTAL	White	White	\$25000	-49999	& Over	Yes	No	Prtstn	Baptst	Prtstn	Cathlc	/ None	Yes	No	East	South	/Cntrl	Pacific
	-----						-----						-----			-----			
TOTAL	748	635	102	177	278	218	392	352	168	138	115	185	106	216	356	153	252	194	149
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	84.9%	13.6%	23.7%	37.2%	29.1%	52.4%	47.1%	22.5%	18.4%	15.4%	24.7%	14.2%	28.9%	47.6%	20.5%	33.7%	25.9%	19.9%
FAVOR NET	676	578	89	152	254	208	351	322	154	122	102	163	102	187	327	134	226	176	140
-----	90.4%	91.0%	87.3%	85.9%	91.4%	95.4%	89.5%	91.5%	91.7%	88.4%	88.7%	88.1%	96.2%	86.6%	91.9%	87.6%	89.7%	90.7%	94.0%
Strongly Favor	497	426	65	111	186	153	260	234	116	79	78	112	86	133	233	96	168	119	114
	66.4%	67.1%	63.7%	62.7%	66.9%	70.2%	66.3%	66.5%	69.0%	57.2%	67.8%	60.5%	81.1%	61.6%	65.4%	62.7%	66.7%	61.3%	76.5%
Somewhat Favor	179	152	24	41	68	55	91	88	38	43	24	51	16	54	94	38	58	57	26
	23.9%	23.9%	23.5%	23.2%	24.5%	25.2%	23.2%	25.0%	22.6%	31.2%	20.9%	27.6%	15.1%	25.0%	26.4%	24.8%	23.0%	29.4%	17.4%
OPPOSE NET	47	34	12	16	18	7	25	21	10	10	8	15	3	16	20	17	15	10	5
-----	6.3%	5.4%	11.8%	9.0%	6.5%	3.2%	6.4%	6.0%	6.0%	7.2%	7.0%	8.1%	2.8%	7.4%	5.6%	11.1%	6.0%	5.2%	3.4%
Somewhat Oppose	31	22	9	12	12	4	14	16	5	8	6	9	2	9	15	11	11	6	3
	4.1%	3.5%	8.8%	6.8%	4.3%	1.8%	3.6%	4.5%	3.0%	5.8%	5.2%	4.9%	1.9%	4.2%	4.2%	7.2%	4.4%	3.1%	2.0%
Strongly Oppose	16	12	3	4	6	3	11	5	5	2	2	6	1	7	5	6	4	4	2
	2.1%	1.9%	2.9%	2.3%	2.2%	1.4%	2.8%	1.4%	3.0%	1.4%	1.7%	3.2%	0.9%	3.2%	1.4%	3.9%	1.6%	2.1%	1.3%
Don't Know / Refused	25	23	1	9	6	3	16	9	4	6	5	7	1	13	9	2	11	8	4
	3.3%	3.6%	1.0%	5.1%	2.2%	1.4%	4.1%	2.6%	2.4%	4.3%	4.3%	3.8%	0.9%	6.0%	2.5%	1.3%	4.4%	4.1%	2.7%

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Q.44. How much more would you be willing to spend per month for electricity generated from cleaner renewable sources?

	POLITICAL																								
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT							
	[=====]		[=====]		[=====]		[=====]				[=====]			[=====]				[=====]							
	Rght Wrng		Dis-		Dis-						Very Smwht			Cnsrv Mod/L Cnsrv Mod/L											
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Egltn	Lbrtn	Sttst	Pplst	Librl	Mtst
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%
Up to 2 Percent Per Month	232	51	143	118	95	65	128	88	19	106	55	90	50	74	13	58	44	24	52	10	35	33	34	13	20
	23%	20%	23%	24.6%	21.0%	18.7%	23.8%	20.5%	20%	25.9%	23.5%	24.0%	19.2%	21.3%	17.3%	31.2%	21.6%	28.2%	21.1%	16.1%	21.9%	31.7%	25.4%	15.1%	28.2%
Up to 5 Percent	256	73	151	125	117	105	133	126	15	103	61	107	64	106	20	48	52	22	64	12	45	27	31	26	19
	26%	29%	24%	26.1%	25.9%	30.3%	24.8%	29.3%	16%	25.1%	26.1%	28.5%	24.6%	30.5%	26.7%	25.8%	25.5%	25.9%	26.0%	19.4%	28.1%	26.0%	23.1%	30.2%	26.8%
Up to 10 Percent	192	55	119	97	83	63	106	81	22	75	41	61	68	64	15	21	53	12	39	23	34	15	23	20	18
	19%	22%	19%	20.3%	18.4%	18.2%	19.7%	18.8%	23%	18.3%	17.5%	16.3%	26.2%	18.4%	20.0%	11.3%	26.0%	14.1%	15.9%	37.1%	21.2%	14.4%	17.2%	23.3%	25.4%
Up to 20 Percent	48	13	27	28	16	10	34	19	7	19	11	18	12	17	2	6	12	2	13	5	9	8	3	4	1
	4.8%	5.2%	4.3%	5.8%	3.5%	2.9%	6.3%	4.4%	7.4%	4.6%	4.7%	4.8%	4.6%	4.9%	2.7%	3.2%	5.9%	2.4%	5.3%	8.1%	5.6%	7.7%	2.2%	4.7%	1.4%
More Than 20 Percent	25	11	11	14	10	6	18	8	4	12	3	7	14	6	2	3	9	1	5	1	5	2	3	4	1
	2.5%	4.4%	1.8%	2.9%	2.2%	1.7%	3.4%	1.9%	4.3%	2.9%	1.3%	1.9%	5.4%	1.7%	2.7%	1.6%	4.4%	1.2%	2.0%	1.6%	3.1%	1.9%	2.2%	4.7%	1.4%
I Wouldn't Pay Any More for Electricity Generated by Renewable Sources	239	46	167	94	127	97	114	106	25	91	60	90	50	78	23	48	33	24	70	10	31	18	39	19	12
	24%	18%	27%	19.6%	28.1%	28.0%	21.2%	24.7%	27%	22.2%	25.6%	24.0%	19.2%	22.5%	30.7%	25.8%	16.2%	28.2%	28.5%	16.1%	19.4%	17.3%	29.1%	22.1%	16.9%
Don't Know / Refused	8	-	6	3	4	1	4	2	2	4	3	2	2	2	-	2	1	-	3	1	1	1	1	-	-
	0.8%	-	1.0%	0.6%	0.9%	0.3%	0.7%	0.5%	2.1%	1.0%	1.3%	0.5%	0.8%	0.6%	-	1.1%	0.5%	-	1.2%	1.6%	0.6%	1.0%	0.7%	-	-

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Q.44. How much more would you be willing to spend per month for electricity generated from cleaner renewable sources?

DEMOGRAPHICS 1

	AGE [=====]					GENDER [=====]		AGE / GENDER [=====]				EDUCATION [=====]			IMMIGRATION [=====]			FOREIGN BORN GP/PTS [=====]	WHO ENTERS [=====]		# U.S. ADMITS [=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad		Sme Leglly	More Illgly	Mre Thn 800K	Lss Thn 800K
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
Up to 2 Percent Per Month	232	23	76	59	68	95	137	38	54	61	73	111	68	47	98	55	75	79	50	159	114	87
	23.2%	16.4%	23.6%	21.9%	27.6%	19.9%	26.2%	16.8%	22.5%	25.8%	26.5%	28.2%	25.5%	14.6%	21.7%	24.6%	25.4%	22.6%	19.8%	24.6%	21.6%	23.6%
Up to 5 Percent	256	46	86	72	50	127	129	64	62	68	60	89	67	99	115	58	75	96	83	152	138	101
	25.6%	32.9%	26.7%	26.8%	20.3%	26.6%	24.7%	28.3%	25.8%	28.8%	21.8%	22.6%	25.1%	30.7%	25.4%	25.9%	25.4%	27.4%	32.8%	23.5%	26.2%	27.4%
Up to 10 Percent	192	36	67	50	36	102	90	60	40	43	46	53	58	79	106	34	51	77	57	118	111	69
	19.2%	25.7%	20.8%	18.6%	14.6%	21.3%	17.2%	26.5%	16.7%	18.2%	16.7%	13.5%	21.7%	24.5%	23.5%	15.2%	17.3%	22.0%	22.5%	18.3%	21.1%	18.7%
Up to 20 Percent	48	8	18	13	6	25	23	12	12	14	7	5	13	29	30	9	9	17	13	28	25	14
	4.8%	5.7%	5.6%	4.8%	2.4%	5.2%	4.4%	5.3%	5.0%	5.9%	2.5%	1.3%	4.9%	9.0%	6.6%	4.0%	3.1%	4.9%	5.1%	4.3%	4.7%	3.8%
More Than 20 Percent	25	5	9	7	3	15	10	9	5	5	5	8	6	11	15	4	5	10	6	17	13	12
	2.5%	3.6%	2.8%	2.6%	1.2%	3.1%	1.9%	4.0%	2.1%	2.1%	1.8%	2.0%	2.2%	3.4%	3.3%	1.8%	1.7%	2.9%	2.4%	2.6%	2.5%	3.3%
I Wouldn't Pay Any More for Electricity Generated by Renewable Sources	239	22	63	66	80	109	130	40	65	45	81	127	53	53	84	62	80	69	43	168	125	83
	23.9%	15.7%	19.6%	24.5%	32.5%	22.8%	24.9%	17.7%	27.1%	19.1%	29.5%	32.2%	19.9%	16.5%	18.6%	27.7%	27.1%	19.7%	17.0%	26.0%	23.7%	22.5%
Don't Know / Refused	8	-	3	2	3	5	3	3	2	-	3	1	2	4	4	2	-	2	1	4	1	3
	0.8%		0.9%	0.7%	1.2%	1.0%	0.6%	1.3%	0.8%		1.1%	0.3%	0.7%	1.2%	0.9%	0.9%		0.6%	0.4%	0.6%	0.2%	0.8%

Research / Strategy / Management

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Q.44. How much more would you be willing to spend per month for electricity generated from cleaner renewable sources?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
	TOTAL	White	Non-White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwst /Cntrl	West / Pacific
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
Up to 2 Percent Per Month	232	187	37	68	90	49	134	97	47	49	41	59	22	83	99	53	81	55	43
	23.2%	22.4%	24.8%	27.9%	25.1%	17.1%	25.8%	20.5%	21.6%	25.7%	25.6%	24.8%	16.1%	29.2%	21.0%	26.1%	23.4%	22.7%	20.6%
Up to 5 Percent	256	216	39	50	105	87	125	131	58	49	29	69	42	70	124	47	94	69	46
	25.6%	25.9%	26.2%	20.5%	29.3%	30.4%	24.0%	27.6%	26.6%	25.7%	18.1%	29.0%	30.7%	24.6%	26.3%	23.2%	27.2%	28.5%	22.0%
Up to 10 Percent	192	167	21	35	67	66	92	98	43	23	33	42	35	39	95	41	54	48	49
	19.2%	20.0%	14.1%	14.3%	18.7%	23.1%	17.7%	20.7%	19.7%	12.0%	20.6%	17.6%	25.5%	13.7%	20.2%	20.2%	15.6%	19.8%	23.4%
Up to 20 Percent	48	42	6	4	13	27	21	26	12	5	10	6	10	9	21	10	14	10	14
	4.8%	5.0%	4.0%	1.6%	3.6%	9.4%	4.0%	5.5%	5.5%	2.6%	6.2%	2.5%	7.3%	3.2%	4.5%	4.9%	4.0%	4.1%	6.7%
More Than 20 Percent	25	20	4	8	8	8	8	17	3	7	3	5	6	9	7	6	7	5	7
	2.5%	2.4%	2.7%	3.3%	2.2%	2.8%	1.5%	3.6%	1.4%	3.7%	1.9%	2.1%	4.4%	3.2%	1.5%	3.0%	2.0%	2.1%	3.3%
I Wouldn't Pay Any More for Electricity Generated by Renewable Sources	239	194	42	77	73	46	136	101	54	57	41	56	21	73	120	43	94	55	47
	23.9%	23.3%	28.2%	31.6%	20.4%	16.1%	26.2%	21.3%	24.8%	29.8%	25.6%	23.5%	15.3%	25.7%	25.5%	21.2%	27.2%	22.7%	22.5%
Don't Know / Refused	8	7	-	2	2	3	4	4	1	1	3	1	1	1	5	3	2	-	3
	0.8%	0.8%		0.8%	0.6%	1.0%	0.8%	0.8%	0.5%	0.5%	1.9%	0.4%	0.7%	0.4%	1.1%	1.5%	0.6%		1.4%

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Q.44a. How much more would you be willing to spend per month for electricity generated from cleaner renewable sources?

	POLITICAL																								
	DIRECTION		CLINTON		GINGRICH		PARTY ID			IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT								
	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	
	Right Wngng	Dis-	Dis-								Very	Smwht		Cnsrv	Mod/L	Cnsrv	Mod/L								
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Egltm	Lbrtn	Sttst	Pplst	Librl	Mtst
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%
Not Pay Any More	239	46	167	94	127	97	114	106	25	91	60	90	50	78	23	48	33	24	70	10	31	18	39	19	12
	24%	18%	27%	19.6%	28.1%	28.0%	21.2%	24.7%	27%	22.2%	25.6%	24.0%	19.2%	22.5%	30.7%	25.8%	16.2%	28.2%	28.5%	16.1%	19.4%	17.3%	29.1%	22.1%	16.9%
Up to 2 Percent Per Month	232	51	143	118	95	65	128	88	19	106	55	90	50	74	13	58	44	24	52	10	35	33	34	13	20
	23%	20%	23%	24.6%	21.0%	18.7%	23.8%	20.5%	20%	25.9%	23.5%	24.0%	19.2%	21.3%	17.3%	31.2%	21.6%	28.2%	21.1%	16.1%	21.9%	31.7%	25.4%	15.1%	28.2%
Up to 5 Percent Per Month	256	73	151	125	117	105	133	126	15	103	61	107	64	106	20	48	52	22	64	12	45	27	31	26	19
	26%	29%	24%	26.1%	25.9%	30.3%	24.8%	29.3%	16%	25.1%	26.1%	28.5%	24.6%	30.5%	26.7%	25.8%	25.5%	25.9%	26.0%	19.4%	28.1%	26.0%	23.1%	30.2%	26.8%
Over 5 Percent Per Month	265	79	157	139	109	79	158	108	33	106	55	86	94	87	19	30	74	15	57	29	48	25	29	28	20
	26%	32%	25%	29.0%	24.1%	22.8%	29.4%	25.1%	35%	25.9%	23.5%	22.9%	36.2%	25.1%	25.3%	16.1%	36.3%	17.6%	23.2%	46.8%	30.0%	24.0%	21.6%	32.6%	28.2%
Don't Know / Refused	8	-	6	3	4	1	4	2	2	4	3	2	2	2	-	2	1	-	3	1	1	1	1	-	-
	0.8%	-	1.0%	0.6%	0.9%	0.3%	0.7%	0.5%	2.1%	1.0%	1.3%	0.5%	0.8%	0.6%	-	1.1%	0.5%	-	1.2%	1.6%	0.6%	1.0%	0.7%	-	-

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Q.44a. How much more would you be willing to spend per month for electricity generated from cleaner renewable sources?

DEMOGRAPHICS 1

	AGE				GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS		# U.S. ADMITS		
	[=====]				[=====]		[=====]				[=====]			[=====]			BORN	[=====]		[=====]		
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male	Female	Male	Female	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [=====]	SmrMore Leglly	MrThn LseThn Illgly	800K	800K
								< 45	45 +	< 45	45 +											
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%
Not Pay Any More	239	22	63	66	80	109	130	40	65	45	81	127	53	53	84	62	80	69	43	168	125	83
	23.9%	15.7%	19.6%	24.5%	32.5%	22.8%	24.9%	17.7%	27.1%	19.1%	29.5%	32.2%	19.9%	16.5%	18.6%	27.7%	27.1%	19.7%	17.0%	26.0%	23.7%	22.5%
Up to 2 Percent Per Month	232	23	76	59	68	95	137	38	54	61	73	111	68	47	98	55	75	79	50	159	114	87
	23.2%	16.4%	23.6%	21.9%	27.6%	19.9%	26.2%	16.8%	22.5%	25.8%	26.5%	28.2%	25.5%	14.6%	21.7%	24.6%	25.4%	22.6%	19.8%	24.6%	21.6%	23.6%
Up to 5 Percent Per Month	256	46	86	72	50	127	129	64	62	68	60	89	67	99	115	58	75	96	83	152	138	101
	25.6%	32.9%	26.7%	26.8%	20.3%	26.6%	24.7%	28.3%	25.8%	28.8%	21.8%	22.6%	25.1%	30.7%	25.4%	25.9%	25.4%	27.4%	32.8%	23.5%	26.2%	27.4%
Over 5 Percent Per Month	265	49	94	70	45	142	123	81	57	62	58	66	77	119	151	47	65	104	76	163	149	95
	26.5%	35.0%	29.2%	26.0%	18.3%	29.7%	23.6%	35.8%	23.8%	26.3%	21.1%	16.8%	28.8%	37.0%	33.4%	21.0%	22.0%	29.7%	30.0%	25.2%	28.3%	25.7%
Don't Know / Refused	8	-	3	2	3	5	3	3	2	-	3	1	2	4	4	2	-	2	1	4	1	3
	0.8%	-	0.9%	0.7%	1.2%	1.0%	0.6%	1.3%	0.8%	-	1.1%	0.3%	0.7%	1.2%	0.9%	0.9%	-	0.6%	0.4%	0.6%	0.2%	0.8%

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Q.44a. How much more would you be willing to spend per month for electricity generated from cleaner renewable sources?

DEMOGRAPHICS 2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	[-----]	
	TOTAL	White	Non-White	Under \$25000	\$25000 -49999	\$50000 & Over	Yes	No	High Prtstn	Baptst	Other Prtstn	Cathlc	N-Chrs / None	Yes	No	North-East	South	Midwat West / Cntrl	Pacific
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
Not Pay Any More	239	194	42	77	73	46	136	101	54	57	41	56	21	73	120	43	94	55	47
	23.9%	23.3%	28.2%	31.6%	20.4%	16.1%	26.2%	21.3%	24.8%	29.8%	25.6%	23.5%	15.3%	25.7%	25.5%	21.2%	27.2%	22.7%	22.5%
Up to 2 Percent Per Month	232	187	37	68	90	49	134	97	47	49	41	59	22	83	99	53	81	55	43
	23.2%	22.4%	24.8%	27.9%	25.1%	17.1%	25.8%	20.5%	21.6%	25.7%	25.6%	24.8%	16.1%	29.2%	21.0%	26.1%	23.4%	22.7%	20.6%
Up to 5 Percent Per Month	256	216	39	50	105	87	125	131	58	49	29	69	42	70	124	47	94	69	46
	25.6%	25.9%	26.2%	20.5%	29.3%	30.4%	24.0%	27.6%	26.6%	25.7%	18.1%	29.0%	30.7%	24.6%	26.3%	23.2%	27.2%	28.5%	22.0%
Over 5 Percent Per Month	265	229	31	47	88	101	121	141	58	35	46	53	51	57	123	57	75	63	70
	26.5%	27.5%	20.8%	19.3%	24.6%	35.3%	23.3%	29.7%	26.6%	18.3%	28.8%	22.3%	37.2%	20.1%	26.1%	28.1%	21.7%	26.0%	33.5%
Don't Know / Refused	8	7	-	2	2	3	4	4	1	1	3	1	1	1	5	3	2	-	3
	0.8%	0.8%	-	0.8%	0.6%	1.0%	0.8%	0.8%	0.5%	0.5%	1.9%	0.4%	0.7%	0.4%	1.1%	1.5%	0.6%	-	1.4%

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Q.45. Which Congressional plan for changing the nuclear waste law do you support?

	POLITICAL																								
	DIRECTION		CLINTON		GINGRICH		PARTY ID				IDEOLOGY			PARTY ID/IDEOLOGY				ROLE OF GOVERNMENT							
	[=====]		[=====]		[=====]		[=====]				[=====]			[=====]				[=====]							
	Rght Wrng		Dis-		Dis-						Very Smwht			Cnsrv Mod/L Cnsrv Mod/L											
	TOTL	Trck	Trck	Apprv	Apprv	Apprv	Apprv	Rpbln	Ind	Dmcr	Cnsrv	Cnsrv	Librl	Rpbln	Rpbln	Dmcr	Dmcr	Mrlst	Cnsrv	Eglt	Lbrtn	Sttst	Pplst	Librl	Mrlst
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL	1000	249	624	479	452	347	537	430	94	410	234	375	260	347	75	186	204	85	246	62	160	104	134	86	71
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	100%	25%	62%	47.9%	45.2%	34.7%	53.7%	43.0%	9.4%	41.0%	23.4%	37.5%	26.0%	34.7%	7.5%	18.6%	20.4%	8.5%	24.6%	6.2%	16.0%	10.4%	13.4%	8.6%	7.1%
Plan A - Temporary Storage	266	80	165	125	127	111	132	126	24	100	73	97	55	102	20	50	41	19	66	16	54	26	36	20	15
	27%	32%	26%	26.1%	28.1%	32.0%	24.6%	29.3%	26%	24.4%	31.2%	25.9%	21.2%	29.4%	26.7%	26.9%	20.1%	22.4%	26.8%	25.8%	33.8%	25.0%	26.9%	23.3%	21.1%
Plan B - New Solutions Before Transporting Around Country	697	161	440	340	306	224	390	288	65	296	148	264	195	230	54	128	157	64	168	45	101	76	93	63	53
	70%	65%	71%	71.0%	67.7%	64.6%	72.6%	67.0%	69%	72.2%	63.2%	70.4%	75.0%	66.3%	72.0%	68.8%	77.0%	75.3%	68.3%	72.6%	63.1%	73.1%	69.4%	73.3%	74.6%
Don't Know / Refused	37	8	19	14	19	12	15	16	5	14	13	14	10	15	1	8	6	2	12	1	5	2	5	3	3
	3.7%	3.2%	3.0%	2.9%	4.2%	3.5%	2.8%	3.7%	5.3%	3.4%	5.6%	3.7%	3.8%	4.3%	1.3%	4.3%	2.9%	2.4%	4.9%	1.6%	3.1%	1.9%	3.7%	3.5%	4.2%

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Q.45. Which Congressional plan for changing the nuclear waste law do you support?

DEMOGRAPHICS 1

	AGE					GENDER		AGE / GENDER				EDUCATION			IMMIGRATION			FOREIGN BORN	WHO ENTERS			# U.S. ADMITS	
	[=====]					[=====]		[=====]				[=====]			[=====]			[=====]	[=====]			[=====]	
	TOTAL	18-29	30-44	45-59	60+	Male	Female	Male < 45	Male 45 +	Female < 45	Female 45 +	H.S. Gradte	Some Collge	Collge Gradte	Good	Can't Say	Bad	GP/PTS [====]	SmeMre Leglly	More Illgly	MreThn 800K	LssThn 800K	
TOTAL	1000	140	322	269	246	478	522	226	240	236	275	394	267	322	452	224	295	350	253	646	527	369	
	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	100%	14.0%	32.2%	26.9%	24.6%	47.8%	52.2%	22.6%	24.0%	23.6%	27.5%	39.4%	26.7%	32.2%	45.2%	22.4%	29.5%	35.0%	25.3%	64.6%	52.7%	36.9%	
Plan A - Temporary Storage	266	43	76	75	63	164	102	72	88	47	50	99	64	93	116	58	79	93	65	174	149	98	
	26.6%	30.7%	23.6%	27.9%	25.6%	34.3%	19.5%	31.9%	36.7%	19.9%	18.2%	25.1%	24.0%	28.9%	25.7%	25.9%	26.8%	26.6%	25.7%	26.9%	28.3%	26.6%	
Plan B - New Solutions Before Transporting Around Country	697	94	231	183	175	301	396	146	147	179	211	281	194	215	317	159	207	245	181	448	362	264	
	69.7%	67.1%	71.7%	68.0%	71.1%	63.0%	75.9%	64.6%	61.2%	75.8%	76.7%	71.3%	72.7%	66.8%	70.1%	71.0%	70.2%	70.0%	71.5%	69.3%	68.7%	71.5%	
Don't Know / Refused	37	3	15	11	8	13	24	8	5	10	14	14	9	14	19	7	9	12	7	24	16	7	
	3.7%	2.1%	4.7%	4.1%	3.3%	2.7%	4.6%	3.5%	2.1%	4.2%	5.1%	3.6%	3.4%	4.3%	4.2%	3.1%	3.1%	3.4%	2.8%	3.7%	3.0%	1.9%	

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Q.45. Which Congressional plan for changing the nuclear waste law do you support?

DEMOGRAPHICS -2

	ETHNICITY			INCOME			MILITARY EXP. FAMILY		RELIGION					BORN AGAIN		REGION			
	[=====]			[=====]			[=====]		[=====]					[=====]		[=====]			
		Non-		Under	\$25000	\$50000			High		Other		N-Chrs			North-		Midwt	West /
	TOTAL	White	White	\$25000	-49999	& Over	Yes	No	Prtstn	Baptst	Prtstn	Cathlc	/ None	Yes	No	East	South	/Cntrl	Pacific
TOTAL	1000	833	149	244	358	286	520	474	218	191	160	238	137	284	471	203	346	242	209
	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	100%	83.3%	14.9%	24.4%	35.8%	28.6%	52.0%	47.4%	21.8%	19.1%	16.0%	23.8%	13.7%	28.4%	47.1%	20.3%	34.6%	24.2%	20.9%
Plan A - Temporary Storage	266	213	47	56	97	80	140	123	58	54	42	69	27	83	125	61	90	64	51
	26.6%	25.6%	31.5%	23.0%	27.1%	28.0%	26.9%	25.9%	26.6%	28.3%	26.2%	29.0%	19.7%	29.2%	26.5%	30.0%	26.0%	26.4%	24.4%
Plan B - New Solutions Before Transporting Around Country	697	590	97	177	249	195	360	334	155	130	111	160	104	192	328	136	242	172	147
	69.7%	70.8%	65.1%	72.5%	69.6%	68.2%	69.2%	70.5%	71.1%	68.1%	69.4%	67.2%	75.9%	67.6%	69.6%	67.0%	69.9%	71.1%	70.3%
Don't Know / Refused	37	30	5	11	12	11	20	17	5	7	7	9	6	9	18	6	14	6	11
	3.7%	3.6%	3.4%	4.5%	3.4%	3.8%	3.8%	3.6%	2.3%	3.7%	4.4%	3.8%	4.4%	3.2%	3.8%	3.0%	4.0%	2.5%	5.3%

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Annie
Carol Annette Petsonk
International Counsel

1875 Connecticut Avenue, N.W.
Washington, DC 20009 USA
(202) 387-3500 x123
Fax: 202-234-6049
e-mail: annie@edf.org

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National Headquarters

257 Park Avenue South
New York, NY 10010
(212) 505-2100

1875 Connecticut Ave., N.W.
Washington, DC 20009
(202) 387-3500

5655 College Ave.
Oakland, CA 94618
(510) 658-8008

1405 Arapahoe Ave.
Boulder, CO 80302
(303) 440-4901

128 East Hargett St.
Raleigh, NC 27601
(919) 821-7793

1800 Guadalupe
Austin, TX 78701
(512) 478-5161



"There's a lot of noise in the data. It is hard to isolate cause and effect. But there is now an effective consensus among the world's leading scientists and serious and well informed people outside the scientific community that there is a discernible human influence on the climate, and a link between the concentration of carbon dioxide and the increase in temperature.....

"The time to consider the policy dimensions of climate change is not when the link between greenhouse gases and climate change is conclusively proven - but when the possibility cannot be discounted and is taken seriously by the society of which we are part.

"We in BP have reached that point."

-- John Browne, Group Chief Executive,
British Petroleum (BP America)
Stanford University, 19 May 1997



Climate Change Speech

By John Browne, Group Chief Executive, British Petroleum (BP America)
Stanford University, 19 May 1997

Dean Spence, Ladies and Gentlemen, good morning.

It is always marvellous to come back to Stanford and it is a pleasure.. and a privilege to be here to speak to you today on a subject which I believe is of the utmost importance.

I can't think of anywhere better than Stanford to discuss in a calm and rational way a subject which raises great emotion and which requires both analysis and action.

I think it's right to start by setting my comments in context.

Following the collapse of Communism in Europe and the fall of the Soviet Empire at the end of the 1980s, two alternative views of the consequences for the rest of the world were put forward.

Francis Fukuyama wrote a book with the ironic title "The End of History". Jacques Delors, then President of the European Commission, talked about the "Acceleration of History".

In the event, history has neither accelerated nor stopped. But it has changed.

The world in which we now live is one no longer defined by ideology. Of course, the old spectrums are still with us - of left to right - of radical to conservative, but ideology is no longer the ultimate arbiter of analysis and action.

Governments, corporations and individual citizens have all had to redefine their roles in a society no longer divided by an Iron Curtain separating Capitalism from Communism.

A new age demands a fresh perspective of the nature of society and responsibility.

The passing of some of the old divisions reminds us we are all citizens of one world, and we must take shared responsibility for its future, and for its sustainable development.

We must do that in all our various roles as students and teachers, as business people with capital to invest, as legislators with the power to make law... as individual citizens with the right to vote • and as consumers with the power of choice.

These roles overlap, of course. The people who work in BP are certainly business people, but they're also people with beliefs and convictions individuals concerned with the quality of life for themselves and for their children.

When they come through the door into work every morning they don't leave behind their convictions and their sense of responsibility.

And the same applies to our consumers. Their choices determine our success as a company. And they too have beliefs and convictions.

Now that brings us to my subject today - the global environment.

That is a subject which concerns us all - in all our various roles and capacities.

I believe we've now come to an important moment in our consideration of the environment.

It is a moment when because of the shared interest I talked about, we need to go beyond analysis to seek solutions and to take action. It is a moment for change and for a rethinking of corporate responsibility.

A year ago, the Second Report of the Inter-Governmental Panel on Climate Change was published. That report and the discussion which has continued since its publication, shows that there is mounting concern about two stark facts.

The concentration of carbon dioxide in the atmosphere is rising, and the temperature of the earth's surface is increasing.

Karl Popper once described all science as being provisional. What he meant by that was that all science is open to refutation, to amendment and to development.

That view is certainly confirmed by the debate around climate change.

There's a lot of noise in the data. It is hard to isolate cause and effect. But there is now an effective consensus among the world's leading scientists and serious and well informed people outside the scientific community that there is a discernible human influence on the climate, and a link between the concentration of carbon dioxide and the increase in temperature.

The prediction of the IPCC is that over the next century temperatures might rise by a further 1 to 3.5 degrees centigrade, and that sea levels might rise by between 15 and 95 centimetres. Some of that impact is probably unavoidable, because it results from current emissions.

Those are wide margins of error, and there remain large elements of uncertainty - about cause and effect and even more importantly about the consequences.

But it would be unwise and potentially dangerous to ignore the mounting concern.

The time to consider the policy dimensions of climate change is not when the link between greenhouse gases and climate change is conclusively proven, but when the possibility cannot be discounted and is taken seriously by the society of which we are part.

We in BP have reached that point.

It is an important moment for us. A moment when analysis demonstrates the need for action and solutions.

To be absolutely clear - we must now focus on what can and what should be done, not because we can be certain climate change is happening, but because the possibility can't be ignored.

If we are all to take responsibility for the future of our planet, then it falls to us to begin to take precautionary action now.

But what sort of action? How should we respond to this mixture of concern and uncertainty?

I think the right metaphor for the process is a journey.

Governments have started on that journey. The Rio Conference marked an important point on that journey. So was the Berlin review meeting. The Kyoto Conference scheduled for the end of this year marks another staging post.

It will be a long journey because the responsibilities faced by governments are complex, and the interests of their economies and peoples are diverse, and sometimes contradictory. But the journey has begun, and has to continue.

The private sector has also embarked upon the journey, but now that involvement needs to be accelerated.

This too will be long and complex, with different people taking different approaches. But it is a journey that must proceed.

As I see it, there are two kinds of actions that can be taken in response to the challenge of climate change.

The first kind of action would be dramatic, sudden and surely wrong. Actions which sought, at a stroke, drastically to restrict carbon emissions or even to ban the use of fossil fuels would be unsustainable because they would crash into the realities of economic growth. They would also be seen as discriminatory - above all in the developing world.

The second kind of action is that of a journey taken in partnership by all those involved. A step by step process involving both action to develop solutions and continuing research that will build knowledge through experience.

BP is committed to this second approach, which matches the agreement reached at Rio based on a balance between the needs of development and environmental protection. The Rio agreements recognise the need for economic development in the developing world. We believe we can contribute to achievement of the right balance by ensuring that we apply the technical innovations we're making on a common basis - everywhere in the world.

What we propose to do is substantial, real and measurable . I believe it will make a difference.

Before defining that action I think it is worth establishing a factual basis from which we can work.

Of the world's total carbon dioxide emissions only a small fraction comes from the activities of human beings, but it is that small fraction which might threaten the equilibrium between the much greater flows.

You could think of it as the impact of placing even a small weight on a weighscale which is precisely balanced.

But in preserving the balance we have to be clear where the problem actually lies.

Of the total carbon dioxide emissions caused by burning fossil fuels only 20 % comes from transportation.

80 % comes from static uses of energy - the energy used in our homes, in industry and in power generation. Of the total 43 per cent comes from petroleum.

We've looked carefully using the best available data at the precise impact of our own activities.

Our operations - in exploration and in refining - produce around 8 megatonnes of carbon.

On top of that a further 1 megatonne is produced by our Chemical operations . If you add to that the carbon produced by the consumption of the products we produce - the total goes up to around 95 megatonnes.

That is just one per cent of the total carbon dioxide emissions which come from all human activity.

Let me put that another way - to be clear.

Human activity accounts for a small part of the total volume of emissions of carbon - but it is that part which could cause disequilibrium.

Only a fraction of the total emissions come from the transportation sector - so the problem is not just caused by vehicles. Any response which is going to have a real impact has to look at all the sources.

As a company, our contribution is small , and our actions alone could not resolve the problem.

But that does not mean we should do nothing.

We have to look at both the way we use energy • to ensure we are working with maximum efficiency.. and at how our products are used.

That means ensuring our own house is in order. It also means contributing to the wider analysis of the problem - through research, technology and through engagement in the search for the best public policy mechanisms - the actions which can produce the right solutions for the long term common interest.

We have a responsibility to act, and I hope that through our actions we can contribute to the much wider process which is desirable and necessary.

BP accepts that responsibility and we're therefore taking some specific steps.

- To control our own emissions.

- To fund continuing scientific research.

- To take initiatives for joint implementation.

- To develop alternative fuels for the long term.

- And to contribute to the public policy debate in search of the wider global answers to the problem.

First we will monitor and control our own carbon dioxide emissions.

This follows the commitment we've made in relation to other environmental issues. Our overall goal is to do no harm or damage to the natural environment. That's an ambitious goal which we approach systematically.

Nobody can do everything at once. Companies work by prioritising what they do. They take the easiest steps first - picking the low hanging fruit - and then they move on to tackle the more difficult and complex problems. That is the natural business process.

Our method has been to focus on one item at a time, to identify what can be delivered, and to establish monitoring processes and targets as part of our internal management system and to put in place an external confirmation of delivery.

In most cases the approach has meant that we've been able to go well beyond the regulatory requirements.

That's what we've done with emissions to water and to air.

In the North Sea, for instance, we've gone well beyond the legal requirements in reducing oil discharges to the sea.

And now at our crude oil export terminal in Scotland - at Hound Point - which handles 10 % of Europe's oil supplies - we're investing \$ 100 m to eliminate emissions of volatile organic compounds.

These VOCs would themselves produce carbon dioxide by oxidation in the atmosphere.

No legislation has compelled us to take that step - we're doing it because we believe it is the right thing to do.

Now, as well as continuing our efforts in relation to the other greenhouse gases, it is time to establish a similar process for carbon dioxide.

Our carbon dioxide emissions result from burning hydrocarbon fuels to produce heat and power, from flaring feed and product gases, and directly from the process of separation or transformation.

So far our approach to carbon dioxide has been indirect and has mainly come through improvements in the energy efficiency of our production processes. Over the last decade, efficiency in our major manufacturing activities has improved by 20 %.

Now we want to go further.

We have to continue to improve the efficiency with which we use energy.

And in addition we need a better understanding of how our own emissions of carbon can be monitored and controlled, using a variety of measures including sequestration. It is a very simple business lesson that what gets measured gets managed.

It is a learning process - just as it has been with the other emissions we've targeted but the learning is cumulative and I think it will have a substantial impact.

We have already taken some steps in the right direction.

In Norway, for example, we've reduced flaring to less than 20% of 1991 levels, primarily as a result of very simple, low cost measures .

The operation there is now close to the technical minimum flare rate which is dictated by safety considerations.

Our experience in Norway is being transferred elsewhere - starting with fields in the UK sector of the North Sea and that should produce further progressive reductions in emissions.

Our goal is to eliminate flaring except in emergencies.

That is one specific goal within the set of targets which we will establish.

Some are straightforward matters of efficient operation - such as the reduction of flaring and venting.

Others require the use of advanced technology in the form of improved manufacturing and separation processes that produce less waste and demand less energy.

Other steps will require investment to make existing facilities more energy efficient. For instance we're researching ways in which we can remove the carbon dioxide from large compressors and reinject it to improve oil recovery. That would bring a double benefit - a cut in emissions and an improvement in production efficiency.

The task is particularly challenging in the refining sector where the production of cleaner products require more extensive processing and a higher energy demand for each unit of output.

That means that to make gasoline cleaner, with lower sulphur levels, takes more energy at the manufacturing stage. That's the trade off.

In each case our aim will be to establish a data base, including benchmark data; to create a monitoring process, and then to develop targets for improvement through operational line management.

Monitoring and controlling emissions is one step.

The second is to increase the level of support we give to the continuing scientific work which is necessary.

As I said a few moments ago, there are still areas of significant uncertainty around the subject of climate change. Those who tell you they know all the answers are fools or knaves.

More research is needed - on the detail of cause and effect; on the consequences of what appears to be happening, and on the effectiveness of the various actions which can be taken.

We will increase our support for that work.

That support will be focused on finding solutions and will be directed to work of high quality which we believe can address the key outstanding questions.

Specifically, we've joined a partnership to design the right technology strategy to deal with climate change. That partnership which will work through the Batelle Institute includes the Electric Power Research Institute and the US Department of Energy. We're also supporting work being done at MIT in Cambridge and through the Royal Society in London.

We're also joining the Greenhouse gas programme of the International Energy Agency which is analysing technologies for reducing and offsetting greenhouse gas emissions from fossil fuels.

The third area is the transfer of technology and the process of joint implementation which is the technical term for projects which bring different parties together to limit and reduce net emission levels of greenhouse gases.

Joint implementation is only in its infancy, but we believe it has great potential to contribute to the resolution of the climate change problem. It can increase the impact of reduction technology by lowering the overall cost of abatement actions.

We need to experiment and to learn and we'd welcome further partners in the process. The aim of the learning process must be to make joint implementation a viable and legally creditable concept that can be included in international commitments.

We've begun by entering into some specific programmes of reforestation and forest conservation programmes in Turkey and now in Bolivia, and we're in discussion on a number of other technology based joint implementation projects.

The Bolivian example I think shows what can be done.

It's a programme to conserve 1.5 million hectares of forests in the province of Santa Cruz. It is sponsored by the Nature Conservancy and American Electric Power and sanctioned by the US Government.

We're delighted to be involved, and to have the chance to transfer the learning from this project to others in which we are involved. Forest conservation projects are not easy or simple, and that learning process is very important.

Technology transfer is part of the joint implementation process but it should go wider and we're prepared to engage in an open dialogue with all the parties who are seeking answers to the climate change problem.

So those are three steps we can take - monitoring and controlling our own emissions, supporting the existing scientific work and encouraging new work, and developing experiments in joint implementation and technology transfer.

Why are we doing all those things? Simply because the oil industry is going to remain the world's predominant supplier of energy for the foreseeable future.

Given that role we have to play a positive and responsible part in identifying solutions to a problem which is potentially very serious.

The fourth step - the development of alternative energy - is related but distinct.

Looking ahead it seems clear that the combination of markets and technology will shift the energy mix.

The world's population is growing by 100 million every year. By 10,000 just since I started speaking.

Prosperity is spreading. By the end of the century 60 per cent of the world's economic activity will be taking place in the South - in areas which ten years ago we thought of as Third World countries.

Both these factors will shape a growing level of demand for energy.

At the same time technology moves on.

The sort of changes we've seen in computing - with continuing expansion of semiconductor capacity is exceptional but not unique.

I think it is a reasonable assumption that the technology of alternative energy supplies will also continue to move forward.

One or more of those alternatives will take a greater share of the energy market as we go into the next century.

But let me be clear. That is not instead of oil and gas. It is additional.

We've been looking at alternative energies for a long time, and our conclusion is that one source which is likely to make a significant contribution is solar power.

At the moment solar is not commercially viable for either peak or base load power generation. The best technology produces electricity at something like double the cost of conventional sources for peak demand.

But technology is advancing, and with appropriate public support and investment I'm convinced that we can make solar competitive in supplying peak electricity demand within the next 10 years. That means, taking the whole period from the time we began research work, that 25 to 30 years will have elapsed.

For this industry that is the appropriate timescale on which to work.

We explore for oil and gas in a number of areas where production today wouldn't be commercially viable at the moment.

Thirty years ago we did that in Alaska.

We take that approach because we believe that markets and technology do move, and that the frontier of commercial viability is always changing.

We've been in solar power for a number of years and we have a 10 per cent share of the world market.

The business operates across the world - with operations in 16 countries.

Our aim now is to extend that reach - not least in the developing world, where energy demand is growing rapidly.

We also want to transfer our distinctive technologies into production, to increase manufacturing capacity and to position the business to reach \$1bn in sales over the next decade.

I am happy to report that there will be significant investment in the USA and we'll be commissioning a new solar manufacturing facility here in California before the end of this year.

The result of all is that gradually but progressively solar will make a contribution to the resolution of the problem of carbon dioxide emissions and climate change.

So a series of steps on the journey. These are the initial steps. We're examining what else we should do, and I hope to be able to announce some further steps later in the year.

Of course, as I said at the beginning, nothing we can do alone will resolve the concern about climate change. We can contribute, and over time we can move towards the elimination of emissions from our own operations and a substantial reduction in the emissions which come from the use of our products.

The subject of climate change, however, is a matter of wider public policy.

We believe that policy debate is important. We support that debate, and we're engaged in it, through the World Business Council on Sustainable Development, through the President's own Council here in the United States, and in the UK where the Government is committed to making significant progress on the subject.

Knowledge in this area is not proprietary, and we will share our expertise openly and freely.

Our instinct is that once clear objectives have been agreed, market based solutions are more likely to produce innovative and creative responses than an approach based on regulation alone.

Those market based solutions need to be as wide ranging in scope as possible because this is a global problem which has to be resolved without discrimination and without denying the peoples of the developing world the right to improve their living standards.

To try to do that would be arrogant and untenable - when we need are solutions which are inclusive, and which work through cooperation across national and industry boundaries.

There have been a number of experiments - all of them partial, but many of them interesting because they show the way in which effective markets can change behaviour.

We're working, for instance, with the Environmental Defence Fund to develop a voluntary emissions trading system for greenhouse gases, modelled on the system already in place in respect of sulphur.

Of course, a system which just operates here in the United States is only a part of the solution. Ideally such structures should be much wider.

But change begins with the first step and the development of successful systems here will set a standard which will spread.

Ladies and Gentlemen, I began with the issue of corporate responsibility. The need for rethinking in a new context.

No company can be really successful unless it is sustainable. - unless it has capacity to keep using its skills and to keep growing its business.

Of course, that requires a competitive financial performance .

But it does require something more, perhaps particularly in the oil industry.

The whole industry is growing because world demand is growing. The world now uses almost 73 million barrels of oil a day - 16 % more than it did 10 years ago.

In another ten years because of the growth of population and prosperity that figure is likely to be over 85 mbd, and that is a cautious estimate. Some people say it will be more.

For efficient, competitive companies that growth will be very profitable.

But sustainability is about more than profits. High profitability is necessary but not sufficient.

Real sustainability is about simultaneously being profitable and responding to the reality and the concerns of the world in which you operate. We're not separate from the world. It's our world as well.

I disagree with some members of the environmental movement who say we have to abandon the use of oil and gas. They think it is the oil and gas industry which has reached the end of history .

I disagree because I think that view underestimates the potential for creative and positive action.

But that disagreement doesn't mean that we can ignore the mounting evidence about climate change and the growing concern.

As businessmen, when our customers are concerned, we'd better take notice.

To be sustainable, companies need a sustainable world. That means a world where the environmental equilibrium is maintained but also a world whose population can all enjoy the heat, light and mobility which we take for granted and which the oil industry helps to provide.

I don't believe those are incompatible goals.

Everything I've said today - all the actions we're taking and will take are directed to ensuring that they are not incompatible.

There are no easy answers. No silver bullets. Just steps on a journey which we should take together because we all have a vital interest in finding the answers.

The cultures of politics .. and of science and of enterprise, must work together if we are to match and master the challenges we all face.

I started by talking about the end of history. Of course it hasn't ended. It's moved on.

Francis Fukuyama who coined that phrase describes the future in terms of the need for a social order - a network of interdependence which goes beyond the contractual. An order driven by the sense of common human interest. Where that exists, societies thrive.

Nowhere is the need for that sort of social order - at the global level - more important than in this area.

The achievement of that has to be our common goal.

Thank you very much.

**Alliance for Affordable Energy (Louisiana) • Atmosphere Alliance (Washington) •
Biomass Energy Advocates • Center for International Environmental Law •
Environmental and Energy Study Institute • Environmental Defense Fund •
Environmental Information Center • Minnesotans for an Energy-Efficient Economy •
Natural Resources Defense Council • Ozone Action • Physicians for Social Responsibility •
TRI-State Coalition For Responsible Investment (New Jersey) • Union of Concerned Scientists •
United Methodist General Board of Church and Society • World Wildlife Fund**

June 17, 1997

Dear Senator:

On behalf of our millions of members, we are writing to urge you to support the resolution on global climate change currently being circulated by Senators Chafee, Lieberman, and Kerry. This resolution calls for the negotiation of an international agreement that makes substantial progress towards preventing dangerous interference with the climate system, as called for by the United Nations Framework Convention on Climate Change, to which the United States is a Party. It insists upon the use of cost effective approaches and the full participation of developing countries.

Last week we wrote urging you to refrain from signing onto any resolution that would disrupt the current negotiations aimed at concluding an international agreement to protect the environment from global climate change. Unfortunately, the resolution introduced by Senator Byrd, S. Res. 98, could have this effect by attempting to prescribe a specific approach to the negotiations that is likely to prove unworkable. In particular, if the U.S. insists that the world's poorest nations, whose pollution is a tenth or less compared to ours, reduce their emissions on the same schedule as the richest nation on Earth, the negotiations are likely to break down. Failure of the Kyoto talks would risk potentially catastrophic damage to the environment, economy, and public health of the United States.

The Chafee, Lieberman, Kerry alternative addresses concerns for a fair and equitable agreement including participation by developing countries in a way that will not undermine efforts to negotiate an international agreement to protect the planet from global warming.

On the eve of the G-8 Economic Summit in Denver and the upcoming Earth Summit 2 in New York, we believe that the Chafee, Lieberman, Kerry resolution supports U.S. leadership in an environmentally and economically responsible fashion. We urge your support.

Sincerely,

Alliance for Affordable Energy of New Orleans, Louisiana
Atmosphere Alliance of Olympia, Washington
Biomass Energy Advocates
Center for International Environmental Law
Environmental and Energy Study Institute
Environmental Defense Fund
Environmental Information Center
Minnesotans for an Energy-Efficient Economy
Natural Resources Defense Council
Ozone Action
Physicians for Social Responsibility
TRI-State Coalition For Responsible Investment of Newton, New Jersey
Union of Concerned Scientists
United Methodist General Board of Church and Society
World Wildlife Fund

Alliance for Affordable Energy (LA) • American Council for an Energy-Efficient Economy • American Wind Energy Association
Atmosphere Alliance (WA) • Biomass Energy Advocates • Breakthrough Technologies Institute
Campaign for a Prosperous Georgia (GA) • Center for International Environmental Law • Clean Fuels Development Coalition Clean Fuels
Foundation • Earth Day Coalition (OH) • Environmental Advocates (NY) • Environmental Defense Center (CA) Environmental Defense
Fund • Environmental and Energy Study Institute • Environmental Information Center • Fuel Cells 2000
Geothermal Resources Association • Greater Boston Physicians for Social Responsibility (MA) • Greenpeace
Inland Northwest ALT-TRANS (WA) • Kentucky Resources Council, Inc. (KY)
Minnesotans for an Energy-Efficient Economy (MN) • Montana Environmental Information Center (MT)
National Biofuels Association • National Biomass Energy Alliance • Natural Resources Defense Council
New Jersey Environmental Lobby (NJ) • Northwest Environmental Advocates (OR) • Oregon Chapter of the Sierra Club (OR)
Ozone Action • Physicians for Social Responsibility • Presbyterian Church (USA), Washington Office
Safe Energy Communication Council • Sierra Club Solar Unity Network • SUN DAY Campaign • Sustainable New-Wealth Industries
TRI-State Coalition for Responsible Investment (NJ) • United Methodist General Board of Church and Society
U.S. Public Interest Research Group • World Wildlife Fund

July 7, 1997

COSPONSOR H. CON. RES. 106 TO PREVENT DANGEROUS CLIMATE CHANGE

Dear Representative:

On behalf of our millions of members from religious, environmental, public health, energy conservation and consumer organizations, we urge you to cosponsor the resolution on global climate change (H. CON. RES. 106) introduced by Representatives Gilchrest, Waxman, Ehlers, Lowey, Porter, McCarthy, Boehlert, Rivers, Gilman, Brown (of California), Morella and Miller (of California). We believe this Resolution will foster appropriate action by the U.S. and other nations to combat the serious threats to our health and environment posed by global climate change.

The Resolution calls for U.S. leadership in the international climate negotiations, which are expected to result in an agreement on greenhouse gas emission reductions by year's end in Kyoto, Japan. The Resolution calls on the U.S. to negotiate an agreement that: contains legally-binding targets and timetables beginning in the year 2005 to reduce emissions substantially below 1990 levels; provides for participation by developing countries; and is fair, enforceable, and provides options for nations to achieve necessary greenhouse gas reductions in a cost-effective manner.

In his address on 26 June at Earth Summit II, President Clinton stated that, "The science is clear and compelling: We humans are changing the global climate. Concentrations of greenhouse gases in the atmosphere are at their highest level in more than 200,000 years and climbing sharply." Leadership in addressing this problem is needed now. U.S. leadership is especially important because as the President noted: "With four percent of the world's population, we already produce more than 20 percent of its greenhouse gases."

And as stated in the Resolution, "The Intergovernmental Panel on Climate Change and other scientific bodies have warned that continued uncontrolled emissions of greenhouse gases could cause damage to our public health, economy and environment." Initiatives implemented thus far to address climate change, however, have failed to control greenhouse gas emissions, which have in fact continued to increase. Further measures that capitalize upon existing opportunities to increase energy efficiency, accelerate the development of renewable energy sources and advanced technologies, and, among other things, reduce our dependency on foreign oil have the potential to create many economic and environmental benefits for the U.S. We therefore urge you to support H. CON. RES. 106 to foster early action to combat human-induced climate change.

Sincerely,

Alliance for Affordable Energy (LA)
American Council for an Energy-Efficient Economy
American Wind Energy Association
Atmosphere Alliance (WA)
Biomass Energy Advocates
Breakthrough Technologies Institute

List of signatories continues on back

Campaign for a Prosperous Georgia (GA)
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U.S. Public Interest Research Group
World Wildlife Fund



LEAGUE OF CONSERVATION VOTERS

June 17, 1997

United States Senate
Washington, D.C. 20510

Re: Oppose S. Res. 98, legislation that could disrupt the climate negotiations

Dear Senator:

The League of Conservation Voters (LCV) is the nonpartisan political arm of the national environmental movement. Each year, LCV publishes the National Environmental Scorecard, which details the voting records of Members of Congress on environmental legislation. The Scorecard is distributed nationwide to LCV members, concerned voters, and the press.

LCV urges you to oppose Senate Resolution 98, sponsored by Senator Byrd (D-WV), whether it is offered in its current form or as an amendment to the State Department authorization bill, S. 908.

The United States is currently engaged in critical international negotiations aimed at reducing greenhouse gas emissions that are contributing to adverse global climate change. Unfortunately, S. Res. 98, could disrupt these negotiations by tying the U.S. delegation to a specific approach that is likely to prove unworkable. In particular, if the U.S. insists that the world's poorest nations, whose pollution is a tenth or less compared to ours, reduce their emissions on the same schedule as the wealthiest nation, the negotiations are likely to break down. Failure of the Kyoto talks would risk catastrophic damage to the environment, economy, and public health of the U.S.

The science of climate change is clear: we must act now for the good of the global environment. Fortunately, sound economic analysis demonstrates that U.S. leadership in this effort can simultaneously make it easier to address related environmental challenges such as improving local air pollution, strengthening energy independence, and improving our economic position for the future.

LCV's Political Advisory Committee will consider including a vote on S. Res. 98 in compiling LCV's 1997 Scorecard. Thank you for your consideration of this issue. For more information, please call Betsy Loyless in my office at (202) 785-8683.

Sincerely,

Deb Callahan

Deb Callahan
President

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The Washington Post

AN INDEPENDENT NEWSPAPER

Paul H. Nitze

A Cold-War Solution for a Warming World

A string of new studies indicates that we are witnessing the early signs of something potentially catastrophic: The earth's temperature is rising. Glaciers are melting, extremely heavy rainstorms have increased by 20 percent in North America this century, and spring has been arriving a week earlier in the Northern Hemisphere. The cause appears to be the emissions from the fossil fuels we burn to heat our homes, run our cars, power our industries and cultivate our farms.

The earth's climate has remained stable for the past 10,000 years, but global warming threatens the stability that fostered the development of modern civilization. Rapid warming could render whole forests more vulnerable to the ravages of disease, pests and fires, destroying watersheds. Rising sea levels, flooding, drinking-water shortages and the northward spread of tropical diseases could displace millions of people. The economic and human costs may devastate continents, creating a crisis larger, and possibly more enduring, than any in recorded history.

The question is no longer "Is our climate changing?" but "What can we do about it?" The cause and consequences of climate changes are global and require global response. The stakes are high, not only for those directly in harm's way of the physical

effects of warming, but also for those who have staked their economic well-being on fossil fuels. To stabilize the world's climate will require reducing greenhouse gases by half during the next century, and countries need to begin to cut emissions soon if adaptations are to be made without disruption. But the challenge—and required changes—are of such scope and magnitude that courageous multilateral steps, beyond what has been accomplished even in our landmark arms-control agreements, are necessary.

Such bold steps also are essential if we are to address the looming threat to geopolitical stability posed by climate change. Just as arms-control treaties sought to limit and reduce the nuclear arsenals of the superpowers, creating an environment of cooperation that encouraged the peaceful transition of Eastern Europe and the Soviet Union, world leaders must create similar, durable, international structures for limiting and reducing greenhouse pollutants while providing for an orderly transition to the use of the energy sources of the future.

Our best prospect for such an agreement is an international greenhouse-gas-emissions budget system. Nations would adopt internationally binding caps or budgets on pollution. Those which reduce emissions could earn emissions savings to bank for future use—or to

sell to others to meet their budget requirements. Over the long run, the innovative, technology-rich U.S. economy could benefit, with U.S. industry competing on an equal footing to offer pollution controls in world markets.

What would it take to create such a structure? To begin with, the United States must lead the way. If we promote the concept internationally, others will follow. Four key elements would make an agreement successful.

First, any agreement must encourage maximum participation, permitting all nations to earn or use tradable emissions credits at some level, whether by using energy more efficiently, switching to less environmentally damaging fuels, or planting and preserving forests that absorb pollution.

Second, to encourage developing countries to participate as soon as possible, industrialized countries—especially the United States—should speedily set an example by adopting these budgets. Industrialized countries also should find ways to make it easy for others to join in. One interim method would be for industrialized countries to provide incentives (such as credits) for their own companies to work with the industries in developing countries to reduce emissions.

Third, the agreement will need tools to enforce compliance. International—

and domestic—support for a budget system will fade if it permits some countries to evade responsibility or imposes unacceptable disciplines on our own. A treaty should include a range of realistic options for deterring emissions profligacy. Violations could be identified by international inspectors along the lines of the U.N.'s International Atomic Energy Agency. Similarly, in response, economic measures such as sanctions or embargoes might be emplaced through the U.N. Security Council.

Finally, President Clinton should demonstrate his personal commitment to this effort. Just as he took the lead in furthering the Chemical Weapons Convention, so should he lead the battle against this new threat to global security. He should not be swayed by arguments that global agreements would spawn an intrusive international bureaucracy. Comparable criticisms were leveled at the arms treaties and dispelled—and the danger from not taking action is just as severe. Those agreements demonstrated that global problems could be solved through international agreement. Their lessons can help us limit and reduce the growing threat from climate change before we find ourselves facing catastrophe.

The writer, a former diplomat, is on the board of the Environmental Defense Fund.

The New York Times

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 DAVID A. THURM, VP, Production

Words and Deeds on Global Warming

There was no way that President Clinton could satisfy everyone in his address last week to the United Nations on climate change, and he did not. By embracing the scientific community's assessment that global warming is a real threat with potentially appalling consequences, he annoyed powerful industries who have been challenging that science because they will bear many of the costs of dealing with the problem. By refusing to embrace a specific timetable for reducing the greenhouse gases that help cause global warming, he disappointed many environmentalists who had hoped for a less ambiguous commitment and faster action.

But none of that should have been surprising. What was surprising was the impressive challenge Bill Clinton set for himself. The U.N. session was merely the first in a series of international meetings that will culminate in Kyoto, Japan, in December, where both industrialized and developing nations are expected to sign a treaty binding them to a detailed plan of action. In the interim, Mr. Clinton says he will try to educate the American people about the nature of the problem and give them some straight talk about the costs they will bear and the sacrifices they will have to make. Without such a campaign, he implied, he cannot possibly sell Congress on a program that would impose real costs on individuals and on major producers and users of fossil fuels like the big utilities, the oil companies

and the automobile and petrochemical industries.

This will be a huge task, and the most important question, now and after Kyoto, is whether Mr. Clinton is up to it. He must first educate a country that is in the midst of an energy binge to the idea that it will have to break its addiction to the fossil fuels that cause greenhouse gases and, meanwhile, invest heavily in new technologies. He must then sell those same ideas to a Congress that is already complaining that the more modest measures he announced last week to attack ground-level smog and soot are too expensive.

Mr. Clinton has other tricky tasks that extend beyond America's borders. He and his negotiators must join with the industrialized nations on a plan to spread the costs fairly among nations, as well as a scheme to bring the developing countries into the effort. Some climate experts believe that the developing countries deserve more time to build their economies with even greater use of fossil fuels, as the industrialized countries have done for 150 years. Others believe they should be assigned specific emissions limits right away. What everyone agrees on is that without the participation of big polluters like China and India, any scheme to limit greenhouse gases will be a farce.

Mr. Clinton has asked for six months to do all this. The measure of his success will be whether he has a credible plan ready in time for Kyoto.

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No Hot Air on Global Warming

Five years ago, more than 100 world leaders came together for the first international Earth Summit in Rio de Janeiro, leaving a diaphanous trail of promises to clean the earth's atmosphere, save its rain forests and otherwise collaborate on common environmental challenges. Many of these leaders or their successors will convene at the United Nations this week to review their work. There is little to celebrate. The oceans are as polluted as ever, and deforestation proceeds at a ruinous pace. Perhaps the most conspicuous failure, however, involves the hugely contentious subject of global warming.

President Clinton cannot avoid addressing that issue when he speaks on Thursday. With only 4 percent of the world's population, the United States produces more than a fifth of the "greenhouse gases" like carbon dioxide that are contributing to a gradual and potentially disruptive warming of the earth's surface. Moreover, the United States has fallen well short of its Rio pledge to stabilize greenhouse emissions at 1990 levels by the year 2000. Only two of the industrialized nations that joined in that pledge, Germany and Britain, are expected to meet their targets. The United States will exceed it by 13 percent or more.

The Administration has already conceded that the voluntary approach endorsed in Rio is not working and that it will accept "binding," enforceable targets on greenhouse emissions if other industrialized nations go along. Mr. Clinton does not have to go much beyond that in his speech. A global treaty will not be signed until a final meeting in Kyoto, Japan, in December. But he has to sketch the outlines of a credible and economically feasible plan aimed at the earliest possible reductions. He must also send a strong signal that if there is a final agreement in Kyoto, he and his Vice President, Al Gore, will work hard to get it through Congress. Any serious plan to reduce greenhouse gases will carry political risks because it will not be cost-free. Mr. Clinton's audience will want to know whether he and Mr. Gore are up to the challenge.

The President has one important thing going for him. There is a far broader scientific consensus on global warming than there was in Rio five years ago and there are many more creative ideas about how to address it. Here is where the issue stands.

The Science. One reason why the industrialized nations opted for voluntary targets in Rio was that mainstream scientists simply could not agree whether man-made emissions had contributed to the small rise in global temperatures that began late in the 19th century. In 1995, however, the U.N. Intergovernmental Panel on Climate Change, consisting of about 2,500 scientists, concluded that they had. Their language was cautious, their forecasts were gloomy.

Unless the current rates of combustion of carbon-based fuels — coal, gas, oil — could be reduced, they warned, temperatures would rise between 1.8

and 6.3 degrees Fahrenheit over the next century. Temperature changes in the middle level of that scale could cause a 20-inch rise in sea levels that would flood coastal lowlands and tropical islands, an increase in weather extremes, and global damage to forests and croplands. Despite challenges from businesses, which have been attacking the science in tobacco-industry fashion, the U.N. panel has not retreated from its basic findings.

Remedies and Costs. About one-third of the atmosphere's greenhouse gases is produced by electric power plants, one-third by cars and trucks and one-third by other commercial enterprises and ordinary households. Reducing these gases not only means using less energy. It will also require expensive investments in cleaner fuels, cleaner cars and new technologies.

Some industrial spokesmen have said that this is a recipe for national bankruptcy. Earlier this year, however, about 2,000 economists signed a statement asserting that the benefits of action on climate change outweighed the costs and that a well-tailored plan relying totally on market mechanisms could actually improve productivity. A study by the World Resources Institute reached the same conclusion. Both the economists and the study suggested that one mechanism could be a carbon tax that would make coal and petroleum fuels more costly and discourage consumption. The revenue from the tax would then be recycled into the economy in the form of lower payroll and corporate taxes, thus encouraging new investment.

Since a carbon tax is unlikely to fly in Congress, both the economists and the study suggested a more politically palatable option that the Administration has generally embraced — an international emissions-trading scheme that would set a global ceiling on emissions and give each country a national ceiling. The idea behind this scheme is that rich nations who cannot keep within their limits without crippling financial investments will be able to "buy" pollution permits from poorer countries whose economies are so inefficient that even the tiniest adjustments can achieve big reductions in greenhouse emissions.

This mechanism is not without flaws, and it remains to be seen whether everyone can agree on such a complicated scheme before Kyoto. But in the long run Mr. Clinton's greatest problem may be to convince Congress, which must ratify whatever emerges from Kyoto, to take the issue of global warming as seriously as the scientists do. That means taking it seriously himself and getting his Vice President, who has been silent on the issue of late, to speak out. It was Mr. Gore, after all, who asserted in "Earth in the Balance" that global warming "threatens to destroy the climate equilibrium we have known for the entire history of the human race. . . . The longer we wait, the more unpleasant our choices become."

SCIENCE AND TECHNOLOGY

Warm words

Agreement may yet emerge between industrialists and environmentalists over what to do about global warming

ALL too often discussions about climate change turn into slanging matches between those who think the apocalypse is imminent, and those who believe that global warming is a preposterous scare story. Now, however, greens and sceptics are finding a few patches of common ground—based on a growing body of research on cheap ways to reduce greenhouse-gas emissions.

Later this month, umpteen heads of state are due to discuss climate change and other green matters at an environmental summit in New York. Then, in December, representatives of the world's rich countries will meet in Kyoto to set new targets for reducing greenhouse-gas emissions beyond 2000. Embarrassingly, only two of them—Britain and Germany—are expected to meet the existing target of stabilising output at 1990 levels by the turn of the century. (America recently admitted that its emissions will probably have risen by 13%.)

Meanwhile, rich countries and poor ones remain deadlocked over who should make cuts in the future. Worldwide demand for energy is rising at around 2% a year and by 2010 the developing countries are expected to be producing more greenhouse gases than the rich ones. Yet they are refusing to sign up to any targets. Three areas of agreement, however, offer a small hope that the negotiations might just achieve something:

- **"No regrets" policies.** Greens and sceptics have argued long and hard about the overall economic costs of combatting global warming—with estimates of the cost of stabilising emissions in rich countries ranging from zero to over 2% of GDP each year. But earlier this year in America, more than 2,000 economists, including six Nobel laureates, signed a declaration arguing that "there are many potential policies to

reduce greenhouse-gas emissions for which the total benefits outweigh the total costs." In an effort to find common ground, experts from both sides of the debate are now focusing more on the scope for policies which are either inexpensive (such as encouraging consumers to buy energy-efficient appliances) or worth implementing



whether or not global warming proves to be a problem (such as reducing subsidies to fossil fuels).

Greenpeace, one of the world's most vocal environmental groups, recently released a report commissioned from the Institute of Environmental Studies of the Free University, Amsterdam, which found that governments in Western Europe fork out around \$10 billion a year in direct subsi-

dies to users of fossil fuels. According to the World Bank, the global figure for such subsidies is around \$230 billion. And recent work by the OECD suggests that removing support for the coal industry in particular could cut carbon-dioxide emissions from rich countries by hundreds of millions of tonnes a year. Of course, few politicians enjoy abolishing subsidies. Earlier this year, for example, Germany watered down its plans to cut coal hand-outs after thousands of irate miners descended on Bonn.

Nevertheless, the Intergovernmental Panel on Climate Change, a group of experts assembled by the United Nations, reckons that cheap energy-efficiency measures might cut as much as 30% from the expected level of global energy consumption over the next decade. On the other hand, the figure might be as little as 10%.

The uncertainty results in part from a long-running disagreement between economists about how well existing energy markets work. The market for electrical appliances such as refrigerators is a case in point. Some researchers argue that if consumers knew how much energy such gadgets use during their lifetimes, they would buy more energy-efficient brands. Others reckon that people are already making fairly rational decisions about the energy consumption of their machines.

- **Tradable budgets.** Another idea gaining acceptance from both greens and sceptics is that, whatever new targets are adopted at Kyoto, they should be imposed using a system of internationally tradable budgets or permits. The idea is that each country would be given a budget to emit a certain amount of greenhouse gases. Part of this budget could then be bought and sold on an open market. Countries able to cut greenhouse-gas emissions cheaply could thus sell some of their budgets. Those who found it expensive could buy parts of other countries' budgets.

The appeal of such a system to rich nations is at least partly that greenhouse-gas reductions can often be bought more cheaply in the poor world. Work by American economists suggests that allowing the rich to cut emissions wherever in the world it was cheapest to do so, rather than having to make the cuts at home, would reduce

SCIENCE AND TECHNOLOGY

their costs by 70%. But setting up a trading system for pollution would be politically tricky. Most countries would demand the highest possible initial budget. And there would need to be strict rules, including some form of punishment, for those who polluted more than their eventual budgets allowed.

- **Research into renewables.** A third idea now widely accepted by all sides in the debate is that governments should shift more of their spending on energy research into renewable sources of energy (which are still more expensive than fossil fuels, even though the cost of wind and solar power has been falling steadily). Even sceptics recognise that this is a sensible bit of insurance in case the world's climate does turn nasty. Such research would help cut the expense of renewable sources of energy if they were ever needed on a large scale, but would cost a tiny fraction of what would be needed to reduce the use of fossil fuels now.

Governments in the rich world are, indeed, spending a little more on research into renewables (funding has risen from \$784m in 1993 to \$878m in 1995, according to the latest figures from the OECD) but research on nuclear power swallows over \$5 billion a year, more than half the total public research budget for energy. Nuclear power gives off no greenhouse gases, yet few—apart from bosses of nuclear-power firms—believe that building more nuclear-power plants will ever be a politically plausible solution to global warming. Rightly or wrongly, people are more frightened of nuclear accidents than of hotter weather.

The reluctance of governments to pursue even these basic measures is due in part to the political power of industries such as coal, oil and nuclear energy, which will lose as a result. But even that may be starting to change. In May, John Browne, the boss of British Petroleum, broke ranks with other bosses of big oil firms, by proclaiming his concern about climate change. "If we are all to take responsibility for the future of our planet, then it falls to us to begin to take precautionary action now," he said.

This was not a headlong rush into the arms of the green lobby—BP remains reluctant to back tough new targets at Kyoto. But it is a sign that some oil companies are beginning to think about turning global warming to their commercial advantage. While still heavily dependent on its oil revenues, BP has a sizeable solar-power business and—like many other major oil firms—growing reserves of natural gas. Since this gives off less carbon dioxide per unit of energy generated than oil does, demand for it may rise under a set of moderately tough greenhouse-gas targets. Just conceivably, one of the big oil firms might soon start lobbying for tougher targets. That would really get politicians moving.

Medical diagnostics Sensored

TINY quantities of things can have devastating consequences if the thing in question is a virus, a poison or a faulty protein. But picking individual chemicals out of a substance such as blood, which contains hundreds of thousands of them, is difficult. Doing so reliably and quickly is therefore a considerable technological challenge, and succeeding should be financially rewarding. Bruce Cornell and his group at the Co-operative Research Centre for Molecular Engineering and Technology in Canberra believe they have a prototype of a device that will be both technologically and financially successful.

The Biosensor, as its creators have dubbed it, works by borrowing one of the smallest machines in nature—the ion channel. Ion channels are hollow cylinders made of protein molecules. Each is tailored so that a single type of electrically charged atom (or "ion"), but no other object, can pass through it when it is open. When it is closed, ions cannot pass.

Dr Cornell realised that he could use ion channels as switches in an electrical circuit. Because ions are electrically charged, they carry a current when they move. This current is the signal to which the Biosensor responds.

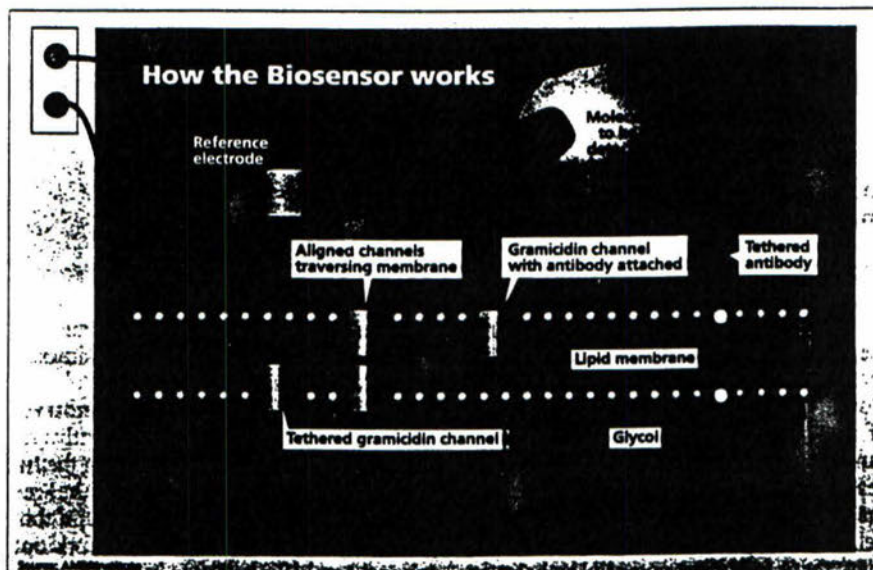
The sensor consists of a gold plate covered by a layer of ethylene glycol (better known to most people as antifreeze). The glycol is, in turn, covered by a membrane made of two layers of lipids (fat-like molecules). It is in this lipid membrane that the ion channels, which are made of an artificial protein called gramicidin, sit. The whole device, together with a second electrode (known as a reference) to complete the circuit, is then mounted on a stick.

The membrane actually plays host to two sets of gramicidin channels (one in each layer—see diagram). In the right circumstances these channels will allow the passage of sodium ions (the liquid to be investigated must have these added in the form of sodium chloride, or common salt, if they are not present naturally). But the right circumstances depend on what is happening in the lipid layers because, by itself, a single gramicidin channel is not long enough to span the membrane and thus let any sodium ions through. Only when outside and inside channels line up with each other to form a single tube can the ions begin to flow.

The inner layer of gramicidin (the one next to the glycol) consists of channels that have been chemically tethered to the gold. The channels in the outer layer, by contrast, are able to float freely. The number of channel molecules present means that, in normal circumstances, about 70% of the free-floating outer channels are lined up with tethered inner ones at any given time, with each dual channel letting through about 1m sodium ions per second. The trick is to find a way to make this flow rate change when the chemical that the sensor has been designed to detect is present. This is done with antibodies.

An antibody is a protein that has been tailored to stick to just one sort of molecule. In nature, this would usually be a molecule on the surface of some invading nasty such as a virus or bacterium, but antibodies that will stick to just about anything can be made artificially to order. The Biosensor works by incorporating antibodies to the specific chemical (drug, hormone, viral protein or pesticide, for example) that it has been designed to detect.

Some of the antibodies are attached to the free-floating channels. Others are attached to special lipid anchors that are fixed to the gold electrode but reach all the



Taxes for a cleaner planet

Enthusiasts for green taxes promise a double blessing: a better environment and a healthier economy. Is this too good to be true?

THIS week's Earth Summit in New York (see page 75) has shown how easy it is to talk about cleaning up the planet—and how difficult it is to do it. Few governments have kept the promises they made five years ago in Rio de Janeiro to cut emissions of "greenhouse gases". Few seem keen to try much harder now.

There is, however, no lack of ideas for making a greener world. In recent years some governments, mainly in Europe, have been trying out economic tools, particularly taxes on pollution. The next may be Britain's, which in its budget on July 2nd is expected to raise green taxes. The argument for these levies is seductive. Their keenest advocates say that environmental taxes will be good not only for the earth but also for the economy as a whole. Although there is some truth in this, green taxes are not the environmental and economic panacea they may seem.

Regulation may be the most obvious way to cut pollution. Governments can simply ban dirty activities, or force companies to use "clean" technology, such as catalytic converters in cars or desulphurisation equipment in coal-fired power stations. But regulation tends to make polluters use a specific technology, rather than investing in cleaner production methods, and it often forces all polluters to undertake the same sort of clean-up although individual clean-up costs vary enormously. Economic theory suggests that market mechanisms can offer more efficient ways to resolve the problems.

To economists, pollution gets out of hand because the prices of goods and services do not reflect the costs of environmental degradation. The passengers in the aeroplane flying low overhead do not pay for the disturbance the engine noise causes on the ground. Car buyers pay for labour, steel and paint, but the price sticker may not reflect the full cost of the noxious goo the car factory spills into a river. Drivers, of course, spread exhaust fumes as they motor along. The costs are borne by others, perhaps for many years, in the form of discomfort, health damage, and the loss of the pleasures and benefits of a clean environment.

The point is not that there should be no pollution at all. It is worth putting up with some, in exchange for the benefits of economic activity. Rather, the objective is to make polluters face the true costs of what they do. Taxation is a way to do that.

ECONOMICS FOCUS

Some economists add to this a second argument. Without green taxes, governments have to raise revenue through other taxes. But these have an economic cost. Income taxes reduce the incentive to work; payroll taxes reduce the incentive for employers to take workers on. With the revenue from green taxes, governments can cut other taxes and still raise the same total amount. In particular, cutting the taxes clogging up the labour mar-



And who should pay?

ket should create jobs. Hence green taxes have a "double dividend": not only do they reduce the distorted price signals about the cost of using the environment, but they also allow distortions elsewhere in the economy to be alleviated.

To some governments, these arguments are proving persuasive. Although regulation remains the most usual form of environmental policy, green taxes are gaining ground. Several countries have raised petrol taxes, and now tax leaded petrol far more heavily than unleaded fuel. Sweden taxes batteries; Belgium has a levy on disposable razors; Italy taxes the polythene in carrier bags; charges for household rubbish collections are now common in America. Keenest of all, Denmark, Finland, the Netherlands, Norway and Sweden now tax emissions of carbon dioxide, the main greenhouse gas.

Moreover, green-tax revenues are being recycled in the hope of yielding the double dividend. The Danes, Dutch, Finns and Swedes are all using revenues

from environmental taxes to reduce taxes on labour. Britain's tax on the disposal of waste at landfill sites is being used to pay for a small cut in payroll tax.

A free, green lunch?

But how much can green taxes achieve? Although a welcome addition to the fiscal armoury, they are far from being a cure-all. For starters, there may not be much scope for using green taxes to cut labour taxes and boost employment. Taxes on polluting industries will raise the price of their output, cutting consumers' demand for their products—this is, after all, precisely the purpose of the taxes—and hence the industries' demand for labour. Higher prices, in turn, leave people with less to spend on other things, costing jobs elsewhere, at least in the short term.

A second difficulty is that there is a trade-off between the efficacy of green taxes as instruments of environmental policy and their power as revenue-raisers. Taxes that cut pollution dramatically will not yield much revenue in the long run. If companies responded to a sulphur tax by eliminating sulphur emissions, say, the tax revenue would fall to nil. Governments would have to go back to more conventional sources of revenue.

This is likely to happen when clean, lightly taxed substitutes can replace heavily taxed goods. Thus the OECD says that in Sweden, where dirtier automotive diesel has been taxed relatively heavily since 1991, almost all diesel is now of the cleanest type and sulphur emissions from diesel vehicles have fallen by 75%. In Norway, the carbon-dioxide tax has prompted a switch away from fossil fuels, cutting emissions from power stations and factories by one-fifth since 1991.

In other instances, however, substitutes are harder to find. Green taxes are then promising sources of revenue, but will do little in themselves to change people's behaviour and reduce pollution. Higher petrol taxes and prices, for example, have done little to curb car use in OECD countries. Even in Norway, the carbon-dioxide tax has cut emissions from vehicles by perhaps 2-3% a year.

So are green taxes a good thing? Yes: they signal to polluters that the environment is valuable, and a tax system that includes them will distort economic activity less than one that does not. But governments should not need greenery as an excuse to make labour taxes less damaging. Like environmental protection, that is worthwhile anyway.

Fred Hiatt

No Credible Goal for Global Warming

It's often noted that this is a short-term kind of town. Is Social Security going bankrupt? Call us when it happens. The Medicare trust fund may run low? Well, not during this election cycle.

So you might think that an issue measured in decades and generations wouldn't stand much of a chance here—even an issue that threatens the human species and its planet. That's why it's encouraging to see such an issue—global warming—being taken seriously by the Clinton administration and surrounding political culture. At the same time, as President Clinton approaches key decision points on climate change policy, it's far from clear he's going to get to the right place on time.

Human industrial activity—particularly the burning of oil, gas and coal—is slowly but steadily warming the earth. Over the coming century, small changes in temperature could lead to coastal flooding, fiercer hurricanes, new patterns of disease migration and worse.

"Global changes in climate promise to dwarf the other calamities of human history," writes the eminent British scientist John Cairns. "And the time scale may be very short. . . . What I

have been discussing here could be the fate of our grandchildren."

Maybe the best indicator that this message is beginning to sink in is the emergence of an entire Washington sub-industry dedicated to global warming and what can be done about it, complete with lobbyists, obfuscators, dueling P.R. firms, warring experts and all the rest. Some folks are beginning to catch on to the idea that—never mind the fate of our grandchildren—there may be money to be made in this climate-change business, which could be the most hopeful sign of all.

Not everyone is there yet, of course. Many oil and gas companies continue to do whatever they can to block progress—challenging science in the best tobacco-company tradition, spreading economic scare stories, advising OPEC nations on how best to sabotage international talks. On the other end of the spectrum is the Association of Small Island States—the mine canaries of global warming, as it were, who will disappear underwater first as climate-change theories come true.

In between is a growing band of companies that fear the consequences of climate change—such as insurance

firms, which don't want to pay for the loss, say, of Florida—or who see opportunities in developing and selling technologies, like solar power, which could promote economic growth without global warming. The chief of British Petroleum recently called for "precautionary action now."

"They're not saying, 'Bring it on, bring it on,'" said Kevin Fay, executive director of the International Climate Change Partnership, which includes such industrial giants as BP, Boeing and DuPont. "They're trying to recognize it as an opportunity, but they're also fearful of the huge stakes involved."

"It" means an international agreement to control the emission of greenhouse gases, and particularly carbon dioxide, the chief culprit in global warming. The Clinton administration has proposed a scheme to make that happen as much as possible through market mechanisms. Every nation would receive a greenhouse-gas emission quota. Countries that managed, through conservation and new technologies, to emit less could sell the unused portion of their quotas; those who overshot their targets would have to buy the right to pollute more. Each country could redi-

vide and reallocate the quota to individual firms, which could in turn trade pieces among themselves.

It may sound totally unworkable—until you realize that something similar is going on, within the United States to control acid-rain emissions, and working well—so well, in fact, that sulfur dioxide emission allowances are now traded directly among utilities, emission-quota futures are offered by the Chicago Board of Trade, and emissions have been reduced more than Congress demanded at less than half the expected cost. Extending such a market mechanism across national borders obviously raises huge new challenges of reporting, verification and compliance. But it could work.

The difficulty lies in what the administration hasn't done. It hasn't yet fleshed out its proposed scheme with any specific dates or overall targets for temperature control or greenhouse-gas emission, so environmentalists as well as other countries are beginning to dismiss its plan as little more than rhetoric. At the same time, moderates in industry complain that they are not being consulted. The

administration is in danger of losing its natural allies at a time when the plan's enemies are sharpening their knives.

President Clinton will soon go to Colorado for a meeting of the G-8—leaders of the United States, France, Britain, Canada, Germany, Italy, Japan and Russia, which together account for 43 percent of the world's greenhouse-gas emissions. Climate change will be a major topic there and at a U.N. environmental conference where Clinton is scheduled to speak later this month.

Everyone involved will be listening carefully. The United States alone, with 4 percent of the world's population, produces more than a fifth of the world's greenhouse-gas emissions. Five years ago, the Bush administration promised to keep those emissions at 1990 levels by the year 2000, despite economic growth during the intervening decade. Now it appears emissions will be 13 percent above that promised target, or higher. This time around, Clinton needs to provide a credible goal—and a practical way of getting there.

The writer is a member of the editorial page staff.

February 13, 1997

Economic Scene: Economists Push Market-Based Response to Global Warming

By **PETER PASSELL**

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

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

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

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

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

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

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

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

That's where the economists' statement fits in. "We wanted to be there early," said Stephen DeCanio of the University of California at Santa Barbara, "before governments and politicians were locked into positions."

Specifically, the statement is intended to give the Clinton administration some help in pressing the idea of creating an international market in emissions permits at the next global meeting on climate change, set for Kyoto, Japan, in December.

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

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

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

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

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

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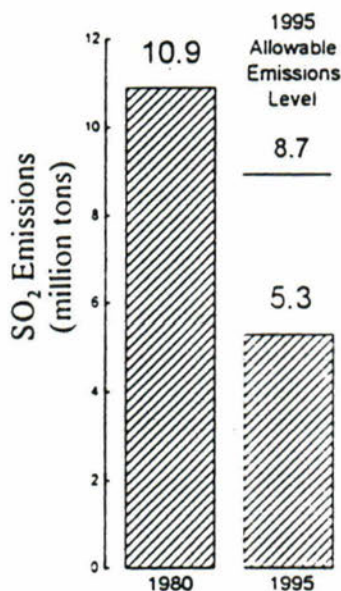
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1995 Compliance Results ---- Acid Rain Program

100% Compliance by the 445 Phase I Utility Units for 1995

Of the more than 2,000 utility units currently operating in the U.S., all 445 Phase I affected units that underwent annual reconciliation for 1995 successfully met their compliance obligations under the Acid Rain Program. The total number of allowances deducted in 1995 was 5,302,509, which represents 61 percent of all 1995 allowances issued. Almost all (99 percent) of the deducted allowances were for emissions (5,298,429), but other deductions were also made as required by the Acid Rain regulations.

Phase I Units Cut their 1980 Emissions in Half; 1995 Emissions were 39% Below the Allowable Emissions Level Required by the Clean Air Act



The emissions reductions to date have been impressive for the first year of compliance. For the 445 units participating in Phase I, actual emissions measured by continuous emission monitoring systems (CEMS) were reduced by more than half relative to 1980 levels with emissions plummeting from 10.9 to 5.3 million tons. Emissions for these units were 3.4 million tons (or 39 percent) below the 1995 allowable emissions level of 8.7 million tons required by the Clean Air Act.

Rainfall in Eastern U.S. Less Acidic in 1995

According to a recent study prepared for the U.S. Geological Survey (USGS), reductions in sulfur dioxide emissions have resulted in rainfall being less acidic in 1995 as a result of the first year of the Acid Rain Program. The study reports a 10-25 percent drop in rainfall acidity, particularly at some sites located in the Mid-West, Northeast, and Mid-Atlantic Regions.

Monitoring Performance Excellent

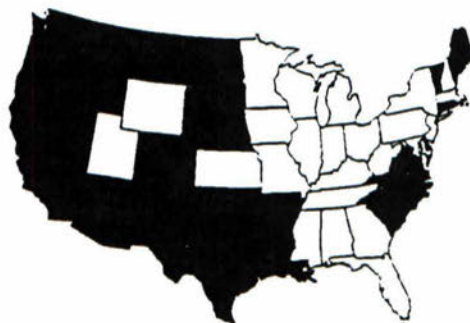
The monitors used by participants of the Acid Rain Program provide some of the most accurate data ever collected by the EPA. Not only were these monitors demonstrated to be accurate but their availability was also excellent.

Accuracy:	98 percent of the installed and tested monitors passed the required 10 percent relative accuracy standard; 93 percent achieved relative accuracy of less than 7.5 percent.
Availability:	These monitors were successfully operating over 95 percent of the time.

Program Costs and Efficiency on Target

The cost of reducing a ton of SO₂ from the utility sector continues to decline: scrubber costs have dropped, removal efficiencies have improved, and expected increases in cost associated with the increased use of low sulfur coal have not materialized. These reductions in cost are being reflected in allowance prices. In just two years, allowance prices have dropped from \$150/ton to less than \$80/ton. Administratively, allowance trades are being processed quickly and efficiently. Ninety nine percent of allowance trades have been processed within 5 days; 81 percent were processed within 24 hours.

State	Table 1 Units	S & C Units	State	Table 1 Units	S & C Units
AL	10	4	MS	2	4
FL	5	5	MO	16	14
GA	19	14	NH	2	1
IL	17	25	NJ	2	0
IN	37	5	NY	10	11
IA	6	0	OH	43	35
KS	1	2	PA	21	5
KY	17	3	TN	19	0
MD	6	4	UT	0	1
MA	0	8	WV	14	8
MI	2	3	WI	13	21
MN	1	5	WY	0	4



The 445 affected utility units include 263 units specifically required to participate during Phase I ("Table 1 units"), and an additional 182 units required to participate in Phase II, but electing to participate early as substitution and compensating units ("S & C units"). Over 2,000 units are expected to participate in Phase II, which begins in the year 2000.

Emissions Summary

445 Phase I Units

SO₂ Emissions (Million tons)

1980 Emissions	10.9
Table 1 Units	9.4
S & C Units	1.5
1995 Allowable Emissions	8.7
Table 1 Units' Allocation	5.6
S & C Units' Allocation	1.3
Other 1995 Allocations	1.8
1995 Actual Emissions	5.3
Table 1 Units	4.4
1995 S & C Units	0.9

1995 Allowance Summary

445 Phase I Units

Million Allowances

Allowances Held 1/30/96	8.74
Table 1 Units	6.21
S & C Units	1.27
Other Accounts	1.26
Allowable Deducted for Emissions	5.30
Table 1 Units	4.45
S & C Units	0.85
Other Allowances Deducted	<0.01
Allowances Carried Over to 1996	3.44
Table 1 Units	1.76
S & C Units	0.42
Other Accounts	1.26



Global Warming: The History of an International Scientific Consensus

1896: Arrhenius, a Swedish chemist, advances the theory that carbon dioxide emissions from combustion of coal would enhance Earth's greenhouse effect and lead to global warming.

1924: Based on 1920 coal use, Lotka, a U.S. physicist, speculates that industrial activity will double atmospheric CO₂ in 500 years.

1949: Callendar, a British scientist, speculatively links the estimated 10% increase of atmospheric CO₂ between 1850 and 1940 with the observed warming of northern Europe and North America which began in the 1880's.

1954: Hutchinson, a Yale biologist, first suggests that deforestation will increase atmospheric CO₂

1957: Revelle and Seuss, scientists with the Scripps Institute of Oceanography, report for the first time that much of the CO₂ emitted to the atmosphere is not absorbed by the oceans, as some had argued, leaving significant amounts in the atmosphere which could eventually warm the Earth. They call carbon dioxide emissions "a large-scale geophysical experiment" with Earth's climate.

1958: Keeling, a scientist with the Scripps Institute, begins the first reliable and continuous measurements of atmospheric carbon dioxide at Hawaii's Mauna Loa Observatory.

1967: The first reliable computer simulation calculates that global average temperature may increase by more than 4 degrees Fahrenheit when the atmospheric CO₂ level doubles that of pre-industrial times.

1971: Some scientists argue that cooling of the atmosphere by particulates from coal burning could be more significant than warming by greenhouse gases. Uncertainties are too large to be sure which effect will dominate.

1976: Scientists at several research institutions identify chlorofluorocarbons (CFCs), methane, and nitrous oxide as greenhouse gases.

1976: U.S. and Swedish scientists estimate that cooling by particulates from coal burning is a relatively small effect on a global average basis.

Fact Sheet

ENVIRONMENTAL DEFENSE FUND

1979: The report of a National Academy of Sciences (NAS) panel on climate change advises that "A wait-and-see policy may mean waiting until it is too late" to avoid significant climate changes.

1983: An NAS report confirms that a doubling of CO₂ levels eventually would warm the Earth by 3 to 8 degrees Fahrenheit. The same year a U.S. Environmental Protection Agency (EPA) study called *Can We Delay A Greenhouse Warming?* states that as a result of warming, "agricultural conditions will be significantly altered, environmental and economic systems potentially disrupted, and political institutions stressed."

1985: A conference sponsored by the United Nations Environment Program (UNEP), the World Meteorological Organization (WMO), and the International Council of Scientific Unions forges a consensus of the international scientific community on the issue of climate change. The conference report warns that some future warming appears inevitable due to past emissions regardless of future actions and recommends consideration of a global treaty to address climatic change.

1987: An ice core from Antarctica analyzed by French and Russian scientists reveals an extremely close correlation between CO₂ and temperature going back more than 100,000 years.

1988: The Intergovernmental Panel on Climate Change (IPCC), made up of leading climate scientists from around the world, is established by UNEP and WMO to assess the scientific and economic basis of climate change policy in preparation for the 1992 Rio Earth Summit.

1990: An appeal signed by 49 Nobel prize winners and 700 members of the NAS states, "There is broad agreement within the scientific community that amplification of the Earth's natural greenhouse effect by the buildup of various gases introduced by human activity has the potential to produce dramatic changes in climate ... Only by taking action now can we insure that future generations will not be put at risk."

° The scientific working group of the IPCC, drawing on 170 scientists from 25 countries, publishes a report stating that human activity increasing greenhouse gas emissions "will enhance the greenhouse effect, resulting on average in an additional warming of the Earth's surface." It calculates that an immediate 60% reduction in CO₂ emissions would stop the buildup of carbon dioxide.

° 747 participants from 116 countries take part in the Second World Climate Conference. The conference statement reports that "a clear scientific consensus has emerged on estimates of the range of global warming which can be expected during the 21st century. If the increase of greenhouse gas concentrations is not limited, the predicted climate change would place stresses on natural and social systems unprecedented in the past 10,000 years."

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ENVIRONMENTAL DEFENSE FUND

1991: Mt. Pinatubo, a Philippine volcano, erupts, temporarily interrupting the increase in surface temperatures.

1992: The NAS publishes a study reporting that despite uncertainties, greenhouse warming poses a potential threat, "sufficient to merit prompt responses ... Investment in mitigation measures act as insurance protection against the great uncertainties and the possibility of dramatic surprises. In addition, the panel believes that substantial mitigation can be accomplished at modest cost. In other words, insurance is cheap."

° A supplementary IPCC report updating its 1990 study finds that new research confirms the general conclusions of its earlier study. However, the report notes that reflection of sunlight by particulates may be offsetting some greenhouse warming in the Northern hemisphere.

° The United Nations Framework Convention on Climate Change is signed by 155 nations at the Rio Earth Summit.

1993: The United Nations Framework Convention on Climate Change is ratified by more than 50 nations, putting it into effect. Efforts are currently underway to implement and strengthen it world-wide.

1994: Mt. Pinatubo's cooling effect wanes, and Earth's temperature returns to high readings characteristic of the late 1980's; March through December 1994 are the warmest such period on record, according to the National Weather Service's Climate Analysis Center.

1995: The Intergovernmental Panel on Climate Change, representing the consensus of climate scientists worldwide, concludes that "... the balance of evidence suggests that there is a discernible human influence on global climate." The year 1995 matches 1990 as the hottest year on record.

1997: Parties to the Framework Convention to meet in Kyoto, Japan, in December in order to agree on binding obligations to limit emissions.

EDF Offices:

National Headquarters

257 Park Avenue South
New York, NY 10010
(212) 505-2100

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

44 East Avenue
Austin, TX 78701
(512) 478-5161

6 Fanueil Marketplace
Boston, MA 02109
(617) 723-2996

1875 Connecticut Avenue, N.W.
Washington, D.C. 20009
(202) 387-3500

5655 College Avenue
Oakland, CA 94618
(510) 658-8008

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793



Global Warming: Myth vs. Fact

MYTH: Although thermometers located at Earth's surface indicate that the planet's average temperature is higher today than it has been for at least 130 years, satellite measurements of the temperature of the atmosphere thousands of feet above the surface indicate a slight cooling since 1979. The surface temperature data is unreliable due to the heat-trapping effect of urban areas. Therefore, there is no compelling evidence that warming has occurred.

FACT: Since thermometers and satellites measure temperatures at two different places in the atmosphere, it is not surprising that the trends sometimes differ. At higher altitudes, temperatures fluctuate more than at the surface due to natural climate influences like sunlight-reflecting particles from volcanoes. This variability or noise in the satellite record obscures the warming trend due to the buildup of the greenhouse gases which is apparent in the global surface temperature data. Furthermore, the depletion of the ozone layer, which has occurred mostly since 1979, has had a cooling effect on the atmosphere which is more marked at higher altitudes than at the surface.

Earth's surface has warmed over both the northern and southern hemispheres, and the warming is apparent in data taken both on land and at sea. Therefore, the urban "heat island" effect could not be causing much of the observed warming.



MYTH: Changes in temperature and changes in greenhouse gas emissions over the past century did not occur simultaneously. Therefore, measured warming cannot be due to the greenhouse gases.

FACT: Many factors have influenced climate in addition to the buildup of greenhouse gases, so there is no reason to expect the two trends to match exactly. However, computer models indicate that warming due to the greenhouse gas buildup will dominate the other factors over the coming decades. These factors include small changes in the output of the sun, a haze of particles arising from volcanic eruptions and from fossil fuel burning which reflects sunlight, and natural variations of climate.

In addition, the slow heating of the oceans leads to a lag between emissions and their effect on temperature. Therefore, a simple overlay of greenhouse gas emissions and temperature data is deceptive. When global temperatures are simulated with a computer model which accounts for most of the additional influences, the result is consistent with the observed warming, and the buildup of greenhouse gases is a dominant factor.



Fact Sheet ENVIRONMENTAL DEFENSE FUND

MYTH: Computer models are unreliable as a guide to future climate change because they do not reproduce past changes. In particular, they fail to account for the one-half degree warming over the past century.

FACT: When changes in the haze of particles as well as greenhouse gases are taken into account, the models simulate a global temperature trend over the past century which is consistent with the observed warming. In addition, there is increasing agreement between the geographical pattern of climate change predicted by the models and the measured pattern of temperature change. Models reproduce other key features of global climate, including the magnitude of the temperature variation from winter to summer and aspects of ancient climates inferred from ice cores, pollen and fossil data.



MYTH: Carbon dioxide is removed from the atmosphere fairly quickly, so if global warming turns out to be a problem, society can wait until after consequences occur to reduce greenhouse gas emissions.

FACT: Carbon dioxide, which is emitted largely by combustion of fossil fuels, is the most important human-made greenhouse gas. If emissions of carbon dioxide were halted today, it would take more than a century for the atmospheric level of carbon dioxide to approach its pre-industrial level. Furthermore, about 15% of all the carbon dioxide which has been emitted already would remain airborne for thousands of years, causing warming indefinitely. In addition, the slow warming of the ocean creates a lag between emissions and their full effect on temperature. In others words, the consequences of past emissions are not yet entirely apparent.



MYTH: Rapid warming occurred at early times without catastrophic consequences, so society and ecosystems can adapt readily to any foreseeable warming.

FACT: Rapid warming occurred in some places at the end of the last glacial period, but since then, global climate has been stable for ten thousand years. During this time, agriculture and civilization arose, leading to fixed settlements, infrastructure, and large populations in areas which are highly vulnerable to climate shifts, such as low-lying coastal zones.

Furthermore, the existence of rapid climate changes in the distant past provides only limited insight into the fate of natural ecosystems. Previously, rapid climate changes may not have occurred everywhere at once, as they are expected to in the future. Furthermore, there were no human-made barriers to inhibit adaptation by ecosystems. In contrast, human settlements, highways, and farmland will block migration of species adjusting to the warming climate of the coming century.



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ENVIRONMENTAL DEFENSE FUND

MYTH: Warming has been occurring largely at night, which is less of a problem than daytime warming.

FACT: Warming over the past century has occurred both during the day and at night, but night-time warming has been the greater of the two. The buildup of the haze of particles from combustion discussed above has probably contributed to this asymmetric warming. But as warming continues, the tendency toward night-time warming is expected to diminish, in part because the slow heating of the oceans causes a uniform atmospheric warming over time. In any event, night-time warming would be experienced by society and ecosystems differently than daytime warming, but may be no less problematic. For example, the northward spread of certain infectious diseases is currently limited by cold night-time temperatures.

MYTH: The IPCC has reduced its projected global warming by 1/3. If we wait a little longer, the threat of human-induced climate change may disappear altogether.

FACT: Computer models of climate have been adjusted to account for the cooling effect of particle haze, which has resulted in lower projections of global average warming by year 2100. The reflection of sunlight by particles partially masks, but does not eliminate, the buildup of the greenhouse effect. When developing countries like China move to reduce the emissions of sulfur dioxide which generate these particles (as the U.S., Europe and Japan already have in order to reduce health effects and acid rain), the hidden warming inevitably will be revealed.

MYTH: Human activities only contribute 4% of CO₂ emissions; the rest comes from natural sources like decaying vegetation and forest fires started by lightning. The human contribution is too small to have a significant effect on climate, particularly since the oceans absorb most of the extra CO₂ emissions.

FACT: Before human beings began to affect the level of CO₂ in the atmosphere, the natural emissions of CO₂ were nearly exactly balanced by natural process which remove CO₂. As a result, the amount of CO₂ in the atmosphere had changed very little for 10,000 years. The additional source of CO₂ from human activity like burning coal and oil for energy, has thrown the system out of balance. Although the oceans and forests absorb about half the CO₂ emitted by industry, the rest builds up in the atmosphere. As a result, CO₂ levels are now 30% above what they were in pre-industrial times. Similar changes of CO₂ occurred naturally tens of thousands of years ago and they were generally accompanied by large shifts in global average temperature.

Fact Sheet ENVIRONMENTAL DEFENSE FUND

MYTH: The buildup of CO₂ will lead to a "greening" of the earth because plants can utilize the extra CO₂ to speed their growth.

FACT: Under the controlled conditions which occur in a greenhouse with ample water and fertilizer, plants grow more rapidly in an atmosphere enriched by CO₂. The extent that this effect carries over into natural systems like forests is unknown. Some plants, potentially including weeds, may benefit while others may not. The consequence for forests and other ecosystems is uncertain, but it is unlikely to counteract the adverse impacts of a rapid climate change.



MYTH: If Earth has warmed since pre-industrial times, it is because the intensity of the sun has increased.

FACT: The intensity of the sun continuously changes, but there were no direct measurements of the size of these shifts before 1979. Indirect evidence suggests that the Sun's variations in the past may have been large enough over the course of centuries to affect Earth's climate significantly. However, a recent estimate indicates that the warming effect of solar variations since pre-industrial times is only about one-tenth as large as the warming effect of the greenhouse gas buildup. The Sun's variations since 1979 have been very small.



MYTH: The IPCC now predicts a global warming of only 1 to 3.5 degrees Celsius over the coming century. This small change, much less than the current daily temperature range for most major cities, is hardly a cause for concern.

FACT: The global average temperature has changed by less than a degree Celsius up or down for ten thousand years. So the projected warming is expected to exceed any climate change which has occurred during the history of civilization. In addition, even apparently small global average temperature changes will be accompanied by much larger regional climate shifts. For example, a warming which is twice as large as the global average is projected to occur at high northern latitudes. Apparently small global average changes also led to large climate shifts in the past: Earth's average temperature increased by only about 5 degrees Celsius between the end of the last ice age and today, but much of the Northern Hemisphere went from being buried under thousands of feet of ice to being ice-free.





MYTH: It is hard enough to predict the weather a few days in advance, so how can we have any confidence in projections of climate a hundred years from now?

FACT: Climate and weather are different. Weather refers to temperatures, precipitation, and storms on a given day at a particular place. Climate reflects a long term average, sometimes over a very large area, like a continent or even the entire Earth. Averages over large areas and periods of time are easier to estimate than the specific characteristics of weather. Nevertheless, scenarios for global warming always recognize a large range of uncertainty.

EDF Offices:

National Headquarters

257 Park Avenue South
New York, NY 10010
(212) 505-2100

1875 Connecticut Avenue, N.W.
Washington, D.C. 20009
(202) 387-3500

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

5655 College Avenue
Oakland, CA 94618
(510) 658-8008

44 East Avenue
Austin, TX 78701
(512) 478-5161

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793

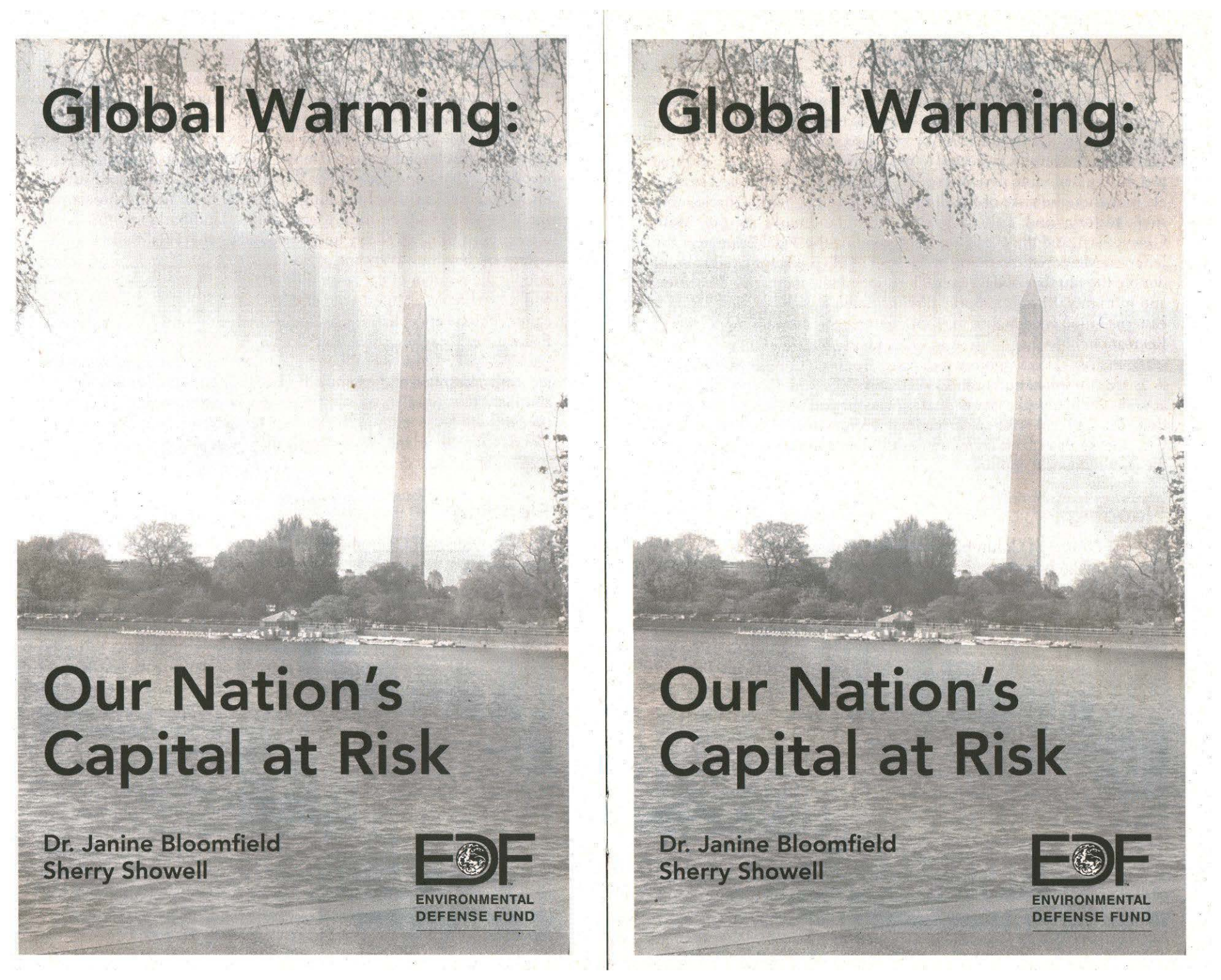
6 Faneuil Marketplace
Boston, MA 02109
(617) 723-2996

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