

AMERICAN ENERGY ALLIANCE

A coalition of companies from industry, utilities, consumers, UPS and other groups opposing BTU taxes

August 7, 1996

To: Members of the American Energy Alliance

Three years ago, your organization and thousands of other companies and trade associations from all parts of the business community joined together to form the American Energy Alliance to oppose the Clinton Administration's massive BTU energy tax proposal. AEA members recognized the extreme harm that the tax—at one point estimated to amount to \$32.6 billion a year—would cause to the U.S. economy and the American people. The BTU tax was the centerpiece of the new Administration's economic program and attracted broad initial support. But, after much hard work and commitment of resources, AEA generated widespread opposition, and the proposal died in Congress in the summer of 1993.

Now, the nation faces an even greater threat. On July 17, in Geneva, Administration officials attending a United Nations conference on global warming announced U.S. support for legally binding targets to reduce greenhouse gas emissions—targets that would have to be met by forced reduction in fossil fuel use, either through new taxes or through a rationing system involving "tradable permits." The fees associated with such permits are another form of a BTU or energy tax.

The costs of this commitment would be staggering, dwarfing the impact of the BTU tax, given the levels of reduction and timetables that likely would be considered. One of the least onerous proposals, for example, would stabilize greenhouse gas or carbon dioxide emissions at 1990 levels by the year 2010. Based on analyses of that level of reduction, such as those by two respected economic consulting firms, Charles Rivers Associates and DRI/McGraw-Hill, taxes of \$125 to \$170 per metric ton on the carbon content of fossil fuels would be required. One of the more onerous proposals would reduce greenhouse gas emissions 10 percent below 1990 levels by the year 2010, which would require taxes of \$235 per metric ton on the carbon content of fossil fuels.

The less onerous proposal would result in an increase of \$.45 to \$.61 per gallon in the cost of gasoline. By contrast, the BTU tax—even though punitively skewed to tax oil two-and-a-third times greater than other fuels—would have increased the cost of gasoline only seven and a half cents per gallon, according to a 1993 DRI/McGraw-Hill study. Thus, even this relatively less onerous proposal would increase petroleum product prices by six to eight times what the BTU tax would have done.

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Other proposals are even more extreme, in the degree of reductions to be achieved and the timetable for achieving them. A German proposal, for example, would require developed countries to reduce carbon dioxide emissions to a level 10 percent below 1990 levels by 2005 and to a level 20 percent below 1990 levels by 2010. That would add between \$.50 to \$1.00 to the cost of a gallon of gasoline.

The Geneva announcement constitutes a reversal of U.S. policy, which in the past has supported voluntary efforts to curtail the growth in emissions. It amounts to an unqualified commitment to vastly increase the costs of fossil fuels—coal, oil and natural gas, and the electricity that is generated from them—and thus curtail their use. And, of course, these higher fuel costs would lead to higher costs of other goods and services throughout the economy. Every manufacturing industry in America and every fuel-user would be clobbered financially.

Although such forced reductions in energy use would be harmful to all countries that impose them, they would be more harmful to the United States than to most others, because our population and our economy are growing faster than those of most other industrial nations. American businesses and workers would be put at a severe disadvantage in world markets. Vast amounts of capital and numbers of jobs would be transferred overseas, especially to developing nations.

You should understand what this means. The United States is willing to impose on its economy burdens that will not apply to developing countries. Capital and jobs will flow to them and their factories and businesses will be given a competitive advantage because the tax will apply to you but not them.

These costs would be imposed despite uncertainty and dispute within the scientific community about the timing, extent and consequences of climate change. Support for such radical measures is perhaps understandable for those countries that would be least harmed and, thus, would gain relative advantage over others. Support within the United States and within the Clinton Administration, however, appears to be more driven by environmental ideology than scientific facts or economic realities.

Unfortunately, the American people are unlikely to learn of the harmful effects of the Administration's Geneva commitment for some time. In fact, in appearances before four congressional committees just prior to the Geneva meeting, Administration officials left the clear impression that they did not contemplate any change in U.S.

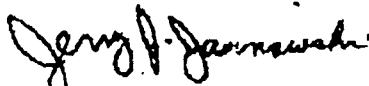
Members of the AEA
August 7, 1996
Page 3

policy. The actual targets would be set through negotiations among various nations over the next 18 months or so—after the November elections.

Given the Administration's obvious reluctance to begin educating the public about the implications of its new policy, it falls again—as it did during the BTU tax debate—to those of us in the private sector to speak out.

We who represent organizations that fought the BTU tax urge you to contact immediately members of Congress, leaders in your communities and your industries, representatives of the Administration and the local news media and advise them of your concerns about this new course that has been charted for the country and the American people. If you would like additional information on this issue, please contact Garry Vaughn of the American Petroleum Institute whose telephone number is (202) 682-8076 and fax number is (202) 682-8071.

Sincerely,



Jerry J. Jasinowski
President, National Association
of Manufacturers and Chairman,
American Energy Alliance



Charles J. DiBona
President, American
Petroleum Institute



Thomas R. Kuhn
President, Edison
Electric Institute

GRASSROOTS INSTRUCTIONS

Background

While global warming, which makes the earth habitable, and the role of greenhouse gases in the Earth's climate are a scientific fact, controversy continues over the reality of enhanced (i.e., man-made) global warming. Despite this, international global climate change negotiators, when they met in July in Geneva, began considering policies required only of developed nations that would require significant lifestyle changes and pose a serious risk to the U.S. economy and its industrial competitiveness.

Moreover, for the first time Clinton Administration officials made an unqualified commitment to legally binding targets to cap greenhouse gas emissions in the United States, even though they acknowledge not having done the analysis and assessment needed to fully understand its effects on most Americans. Likely targets could only be met by forced reduction in energy use, for example, through massive new energy taxes or a "tradeable permits" rationing system that would simply be another form of energy tax. Depending on the target chosen, the new taxes could result in a 100% increase in the U.S. cost of fuel and heating oil, and add as much as \$1.00 to the cost of a gallon of gasoline. In addition, Americans could pay higher prices for such basics as electricity, housing, household supplies, clothes, appliances, furniture, food, tuition and travel.

Grassroots Action Instructions

Congress and the President need to be told of the importance of this issue to you, your family and your work place.

The following are things you can do. In each instance, be certain to personalize your message.

(1) Congressional Contacts

Please contact (write or call) your two U.S. Senators and Representative. This is especially important if your legislators are among those listed on the attached "Key Congressional Contacts" sheet. Tell them:

- Global climate change is a "here and now" issue.
- The Clinton Administration's announcement in Geneva constitutes a reversal of U.S. policy, which in the past supported voluntary efforts to curtail the growth in greenhouse gas emissions.

Key Congressional Contacts

Senate

Jesse Helms (NC)
Richard Lugar (IN)
Nancy Kassebaum (KS)
Hank Brown (CO)
Paul Coverdell (GA)
Olympia Snowe (ME)
Fred Thompson (TN)
Craig Thomas (WY)
Rod Grams (MN)
John Ashcroft (MO)
Chuck Robb (VA)
John Warner (VA)
Bob Smith (NH)
Lauch Faircloth (NC)
Dirk Kempthorne (ID)
James Inhofe (OK)
Mitch McConnell (KY)
Christopher Bond (MO)
Frank Murkowski (AK)
Mark Hatfield (OR)
Pete Domenici (NM)
Don Nickles (OK)
Larry Craig (ID)
Ben Nighthorse Campbell (CO)
Jon Kyl (AZ)
Rod Grams (MN)
James Jeffords (VT)
Conrad Burns (MT)
J. Bennett Johnston (LA)
Dale Bumpers (AR)
Wendell Ford (KY)
Howell Heflin (AL)
Byron Dorgan (ND)

House of Representatives

Thomas Bliley (VA)
Carlos Moorhead (CA)
Jack Fields (TX)
Michael Bilirakis (FL)
Dan Schaefer (CO)
Joe Barton (TX)
Dennis Hastert (IL)
Paul Gillmor (OH)
Scott Klug (WI)
James Greenwood (PA)
Michael Crapo (ID)
Richard Burr (NC)
Brian Bilbray (CA)
Ed Whitfield (KY)
Greg Ganske (IA)
Charlie Noorwood (GA)
Tom Coburn (OK)
John Dingell (MI)
Ralph Hall (TX)
Rick Boucher (VA)
Sherrod Brown (OH)
Blanche Lambert Lincoln (AR)
Ron Klink (PA)
Bart Stupak (MI)

Op-ed on Economic Impacts of Global Warming Actions

The debate over steps that the United States should take to curtail “global warming” is as much about jobs, trade and the economy as it is about the environment— but that’s not often acknowledged, especially by proponents of steps to severely limit “greenhouse” gas emissions.

At stake are millions of American jobs—jobs that could be lost because of proposed actions to solve an unsubstantiated problem. Yet there is uncertainty among scientists about the nature or scope of the problem or, indeed, the very existence of a warming trend attributable to the human activity that proponents would curtail.

Nevertheless, in July, at a meeting in Geneva, Switzerland, the Clinton Administration reversed U.S. policy favoring voluntary efforts to curtail emissions, and now endorses legally binding caps on such emissions. The likely targets would require either huge new energy taxes or a system of rationing or energy use permits. The fees associated with such a system would be the equivalent of a new tax.

If the first approach was used, fossil fuel consumption would be checked by new taxes that pushed up energy prices. Authorities have predicted that carbon taxes needed to reduce fossil fuel use could easily double the cost of coal and natural gas used to generate electricity and raise the cost of gasoline by as much as \$1 a gallon. Furthermore, investment costs would rise for manufacturers, homeowners and others forced to buy more energy-efficient—and more costly—homes, factories and equipment. According to a similar study, a tax that would slightly reduce greenhouse

Op-ed on Global Warming Process

In July, in Geneva, Switzerland, the United States government announced that it was abandoning its past position favoring voluntary efforts to curtail “greenhouse gas” emissions, and, instead, endorsing mandatory caps on these emissions.

If implemented, the U.S. proposal could mean that Americans would have to reduce their energy use 20 percent below 1990 levels. A proposal this drastic would require massive new energy taxes or a rationing, or energy use permitting, system, with fees that would be the equivalent of such taxes. The costs of achieving this goal could reduce the U.S. gross domestic product by 4 percent and cost Americans up to 1.1 million jobs annually.

Advocates of such drastic action cited as justification a chapter on attribution of human impacts on climate found in the “Second Assessment Report” of the Intergovernmental Panel on Climate Change (IPCC). But the report’s value to policymakers is questionable because key sections were unilaterally amended after the report was completed.

The original object of the IPCC study was to obtain objective information from the world’s experts on the risks of an “enhanced greenhouse effect” i.e., increased global warming caused by human activity.

Unfortunately, several lead authors of that key chapter made significant, substantive changes *after* the report was accepted by the scientific panel last December. Those changes—deletions, rewrites and the addition of new material—downplay

scientific uncertainties about global warming expressed by the scientists and stress the possible impact of human activity.

For example, deleted from the final draft, accepted by scientists and governments, is this conclusion: "Finally, we come to the most difficult question of all: 'When will the detection and unambiguous attribution of human-induced climate change occur?' In light of the very large...uncertainties discussed in this chapter, it is not surprising that the best answer to this question is 'We do not know.'" Also deleted were other passages underscoring scientific uncertainty and its relevance to deliberations of government policymakers.

This deliberate "cleansing" undoes the careful balance of the original report, which was reviewed and signed off by international experts. It also casts doubt on the credibility of the IPCC and suggests that the final arbiters of its work are less interested in scientific findings than in advancing an agenda.

Policymakers in the United States should have been extremely wary of relying on a "scientific" process that has been tainted in such a manner. Concerns about climate change merit close study, but the possible extent of such change and the consequences are highly uncertain.

Fiddling with scientific reports won't change the basic reality. But it could diminish public trust in the scientific assessment of critical issues—and, if people acted on false information, it could cost the American people millions of jobs and much reduced incomes. The Clinton Administration should not rely on this tainted report and should revert to the prior U.S. commitment to voluntary action.

economic consulting firms, Charles River Associates and DRI/McGraw-Hill, taxes of \$200 and perhaps \$300 per metric ton on the carbon content of fossil fuels would be required. That proposal would result in an increase of some \$.50 to \$.75 per gallon in the cost of gasoline.

A carbon tax of just \$200 per metric ton would result in a loss of 4.2 percent to the U.S. economy by the year 2010—or more than \$350 billion a year.

The energy that people depend upon and buy would cost more because of the tax. And these higher energy costs would reduce auto purchases, air travel and the purchase of major appliances. Also, because energy is required for manufacturing and delivering of virtually all products, prices would rise across the board—for food, clothing, housing, just about everything.

These higher prices would result in less disposable household income. A greater percentage of family budgets would go to necessities, such as food, clothing and housing, leaving less for optional purchases, such as electronic equipment, leisure activities and travel.

This loss of income would force people to spend proportionally more of their family budgets on energy—20 to 50 percent more—on, for example, gasoline for transportation, natural gas and oil for heating, and electricity for heating, air conditioning, lighting and appliances.

But are all these added costs and sacrifices really necessary or beneficial? Perhaps not. Many in the scientific community are not convinced that global warming, if a threat at all, is an immediate one. Scientists do agree that the Earth's temperature has risen by one degree over the past 100 years or so, but they do not know to what

Global Climate Change Backgrounder

Global warming is a natural phenomenon. Greenhouse gases--water vapor, carbon dioxide and methane are the most common--trap some of the sun's warmth and keep it near the surface of the Earth. This is important. Without the greenhouse effect, our planet would be about 60 ° F colder. Much of the Earth's surface would be uninhabitable.

Recently, scientists have noticed that certain human activities, such as the burning of coal, oil and natural gas, are increasing the Earth's greenhouse gas concentrations. To better understand this trend, a U.N. Intergovernmental Panel on Climate Change (IPCC) was formed to study the human or "enhanced" greenhouse effect. And government officials in the 150 countries who signed the 1992 Rio Treaty are discussing what, if anything, should be done about it, and when.

Firm answers to these questions are not yet available, but some people are taking positions. For example, some scientists think that as greenhouse gases accumulate in the atmosphere, temperatures will rise significantly, sea level will go up and certain plants and animals may have difficulty surviving in their present habitats. Others predict more frequent (or more intense) hurricanes, tornadoes and drought. Still others warn of adverse health effects and shifts in where people live.

These are serious concerns--but not immediate dangers. Climate scientists typically think of changes over a 100 or 200 year time span. Moreover, many scientists believe we need to build better models and learn more about how the climate system actually works before taking drastic action, such as changing the way we use energy.

Not all government officials agree. Political pressure is mounting to limit greenhouse gas emissions from oil, coal and natural gas--but only in the United States and other developed countries. However, this would be costly and would produce little or no environmental benefit. After all, the majority of greenhouse gases will come from China, India, Brazil and other developing countries in the decades ahead.

Climate policies need to be based on good science. Here is what we know--and don't know--about mankind's impact on the climate system, plus a few words on how some policymakers are using climate science to justify their policy proposals.

Greenhouse Gas Sources: Over 90 percent of all greenhouse gases come from natural sources--human activities produce less than 10 percent of global

greenhouse gases. Moreover, a variety of human activities produce this 10 percent. For example, cows raised in Argentina produce methane, as does rice grown in Thailand--or anywhere. Coal or natural gas-generated electricity releases carbon dioxide and methane, whether it's done in New Dehli, Hong Kong or Des Moines. Most of the developed world's factories and homes are heated with fossil fuels, which release greenhouse gases. Cars running on gasoline do too--as do fireplaces, whether they're lighted to cook food in Peru or to warm the hands and feet on a cold winter night in Oslo.

Many of these gases are recycled. Carbon dioxide makes trees and plants grow larger or more quickly. However, some gases from human activities do accumulate in the atmosphere and may be trapping additional heat. That is why scientists want to know if we're leaving a human "fingerprint" on climate.

Climate Science: The IPCC *Second Assessment Report* says that "the balance of evidence suggests a discernible human influence on global climate." Cited as evidence is the 1°F rise in Earth's temperature during the past 100 years, shifts in nighttime and regional temperature patterns, and a slight global rise in sea level. More extreme changes are predicted for the future, including as much as a 3.5° F rise in surface temperatures and a sea level increase of 1.5 feet by the year 2100.

However, equally reputable scientists see flaws in the global warming theory. They point to the fact that most man-made greenhouse gases entered the atmosphere after 1940 while most of the observed temperature increase occurred before 1940. They point toward competing hypotheses, such as solar activity, to explain changes in temperature patterns. They note that NASA satellites haven't detected any temperature change in the upper atmosphere during the 17 years they have been orbiting our planet. And they warn that predictions about the future are extremely difficult since climate models are fairly primitive. Typically, global models divide the world into areas the size of South Carolina and try to predict climate 100 years in the future.

Policy Implications: Right now climate science is an extremely controversial issue. After IPCC scientists formally approved the *Second Assessment Report*, changes were made to the chapter that discusses human impacts on climate. These changes downplay scientific uncertainties and appear to strengthen the case for altering the way we use energy. Moreover, some countries have based policy proposals on the IPCC report. For example, in July 1996 the United States proposed setting "a legally binding target" to limit greenhouse gas emissions by industrialized countries.

The U.S. proposals is not yet law, but it is sharply at odds with several key statements in the original *Second Assessment Report*. These include the remark that "no study to date has positively attributed all or part" of the 1°F rise in

Earth's temperature during the past 100 years to human causes, "[n]or has any study quantified the magnitude of a greenhouse-effect or aerosol effect in the observed data--an issue that is of primary relevance to policymakers." Even more telling is the deletion of this observation: "Finally, we come to the most difficult question of all: 'When will the detection and unambiguous attribution of human-induced climate change occur?' In the light of the very large...uncertainties discussed in this Chapter, it is not surprising that the best answer to this question is, 'We do not know.'"

Economic Impacts of Potential Climate Change Policies

Background

Under the international negotiations known as the Berlin Mandate Process of the Framework Convention on Climate Change, about 150 countries are considering greenhouse gas emission reduction targets, the timetables for the emission reduction targets, as well as the policies and measures necessary to achieve those targets and timetables. At the July negotiating conference, the U.S. announced, for the first time, that it is seeking a "binding medium-term emissions target" and suggested "an international [permit] trading regime" as the implementing mechanism.

Potential Impacts

The emission goals being considered in the Berlin Mandate process would require a massive restructuring of energy use in the United States. According to the latest data and projections by the U.S. Energy Information Administration, U.S. carbon emissions in 2010 will be about 55 percent greater than one of the major treaty proposals. Despite the significant voluntary efforts as part of the U.S. Climate Change Action Plan, U.S. carbon emissions will increase because of projected economic growth and a growing population.

The policies needed to achieve such goals are as yet unidentified by international negotiators, but surely would have to be quite drastic. A study by the economic consulting firms of Charles River Associates (CRA) and DRI/McGraw-Hill estimated that a tax on the carbon content of fossil fuels in excess of \$200 per metric ton (Mt) likely would be needed in the United States to achieve the goals under discussion. This is equivalent to a new tax of about 60 cents per gallon on gasoline. The prices of most fuels used by residential and commercial customers would increase in excess of 50 percent or more with a \$200 per Mt carbon tax. If taxes were not used to achieve such goals, other policies at least as disruptive would have to be implemented.

The economic impacts of policies such as this could be severe. According to the CRA/DRI study, by 2010 a \$100 per metric ton carbon tax (less than half that necessary to reach the stated goals) could reduce U.S. Gross Domestic Product by 2.3%. This is about \$203 billion for the economy as a whole, or about \$862 less for every adult in the U.S. in that year. The impact also would reduce business fixed investment 4.6%, reduce residential investment by 3.2%, reduce real consumer spending by \$454 per adult, reduce employment by 500,000, increase inflation, and increase interest rates. Industries at particular risk include primary aluminum, primary ferrous metals, iron ore mining, paper mills, chemical and fertilizer mineral mining, industrial chemicals, nonferrous metal mining, and pulp mills. Businesses using products from those industries also would be impacted. Additionally, companies competing with products produced in developing countries would face a loss in competitiveness because the developing countries would face no similar policies that make energy use more expensive.

The impacts on the U.S. economy would be large even if policies other than carbon taxes were used. Economists believe that the impacts of other policies like command and control would generally be greater than the impact of a carbon tax achieving a given emission reduction.

Another study used input/output analysis to look in detail at the impact of a \$110 per metric ton carbon tax on 470 industries in the U.S. economy. As expected, a \$110 per metric ton carbon tax would cause large increases in fuel costs to consumers. For example, costs at electric services

utilities and natural gas production and distribution utilities would increase about 29%. The costs at industries producing miscellaneous coal and petroleum products would increase about 30%.

As a result, costs at energy intensive industries also would increase substantially. For example, costs at cement plants would increase 26%. Costs at blast furnaces and steel mills would increase about 15%. Costs in the primary aluminum industry and the chemical and fertilizer minerals industries would increase about 9%. Costs in paper and paperboard mills as well as the nitrogenous and phosphatic fertilizer industries would increase about 6% to 8%.

There are surprising cost increases as well throughout the economy. For example, costs in the following industries all would increase roughly 5% to 7% --- industrial inorganic and organic chemicals, adhesives and sealants, metal cans, air transportation, as well as auto rental and leasing. Even the cost of state and local government passenger transit would increase substantially -- an estimated 15%. It should be remembered that these percent increases in costs are for a \$110 per metric ton carbon tax -- a tax that the DRI/McGraw-Hill report indicates would be insufficient to meet the energy use reduction targets being discussed at international meetings.

Conclusions

These studies indicate that the costs to the economy and to individual businesses of the carbon emission reduction proposals being negotiated internationally would be large and would be felt throughout the economy. Large impacts would occur whether carbon taxes or some other command and control mechanisms to ration or limit energy use were instituted. And the competitive impacts on U.S. businesses, given that developing countries would not be obligated to undertake such measures, likely would be large.

Proposed Changes to the Rio Treaty

The Rio Treaty: In response to a growing concern about the risk of climate change, more than 150 government leaders signed the Rio Treaty in 1992. This agreement, also known as the Framework Convention on Climate Change, calls on developed nations to voluntarily return greenhouse gas emissions to 1990 levels by 2000. Developing countries, which emit slightly more than half the world's greenhouse gases, are not required to pursue this goal.

U.S. industry is helping to meet this aim. More than 5,000 companies now participate in 50 government programs aimed at improving energy efficiency, reducing waste, and recycling natural resources. Some companies also are planting trees, which absorb carbon dioxide. All of these programs are new, so most nations, including the United States, do not expect to return greenhouse gas emissions to 1990 levels by 2000.

What Next? Following a meeting in Berlin in March-April 1995, policymakers decided to assess the need to limit post-2000 greenhouse gas emissions in developed nations. This "Berlin Mandate" process could result in fuel rationing, massive energy taxes, efficiency standards or other mandatory measures. The United States, for example, has proposed "a legally binding target" for all developed nations. If implemented, this proposal would cost millions of U.S. jobs, reduce economic growth, and make American businesses less competitive overseas.

Other, more costly proposals, also are being considered. For example, the European Union has called on developed countries to agree to "common, coordinated and voluntary policies and measures," including carbon taxes and efficiency standards, so that average global temperatures do "not exceed 2 degrees C above pre-industrial levels." The Alliance of Small Island States has called on OECD nations to reduce carbon dioxide emissions 20% below 1990 levels by 2005. Regardless of the year--or target--chosen, the economic impacts on the United States are certain to be substantial. That's because both our population growth rate and our economic growth rate are higher than most other industrialized nations.

Negotiations on the U.S. and similar proposals are moving quickly. U.N. officials are expected to have drafted language for a new protocol before the December 6-13, 1996 meeting of the Berlin Mandate participants. Negotiations likely will be completed before December 1997. The U.S. Senate would then review and would have to ratify any new agreement before its terms applied to the United States.

Climate Change Calendar

1995

- April* Parties decide to negotiate post-2000 agreement (Berlin Mandate)
- October* OECD (Organisation for Economic Co-Operation and Development) countries propose common measures (carbon taxes, efficiency standards, emissions caps, tradable permits)

1996

- March* U.S. supports changes to Rio Treaty; European Union proposes carbon taxes, efficiency standards, and other common policies and measures.
- July* U.S. proposes binding medium-term emission target. Details to follow November election.
- December* Text drafted. Serious negotiations well underway.

1997

- February* Specific targets and timetables now on the table.
- July* Possible additional session to advance text.
- December* Parties to the Rio Treaty meet in Kyoto, Japan and agree to mandatory limits on post-2000 emissions of industrialized countries.

Climate Change Q & As

Q. Why has the Clinton Administration committed the United States to a binding international agreement to limit greenhouse gas emissions?

A. In July the Clinton Administration told a U.N. climate change conference that voluntary efforts to limit greenhouse gas emissions had failed. The Administration then proposed legally binding targets and timetables to reduce the emission of fossil fuel gases--principally, carbon dioxide and methane--in industrialized countries. However, the Administration has refused to announce specific U.S. targets and timetables for reducing emissions until after the November election. This suggests their proposal is politically motivated--it allows them to appear protective of the environment while avoiding public discussion of the high costs associated with reducing greenhouse gas emissions. After all, every American would have to substantially reduce their use of energy in order to implement the Administration's proposal. And there are only two ways to forcibly limit energy use--rationing permits or massive new energy taxes. Both would drive up the cost of gasoline, electricity, food, manufacturing and transportation. No wonder the Administration doesn't want the American public to know they have committed the United States to a radical--and costly--shift in climate policy.

Q. But don't human activities affect climate?

A. Scientists believe it's possible--but like advocates of the "global cooling" theory of the 1970s, proponents of man-made "global warming" may be overstating their case. For example, scientists know that some agricultural, forestry and industrial activities have increased the amount of greenhouse gases in the upper atmosphere. They know these gases trap heat. And they are concerned that higher greenhouse gas concentrations could lead to higher temperatures, rising sea levels, regional droughts and more extreme weather events. But the evidence so far that humans are affecting the climate is weak. U.N. scientists who studied the issue for years recently concluded that "the balance of evidence suggests a discernible human influence on global climate."¹ This is hardly compelling evidence that humans are having a dramatic impact on climate.

¹ This and all other quotes from Intergovernmental Panel on Climate Change (IPCC) documents are taken from the *Second Assessment Report* (Cambridge University Press, 1996). Note that portions of "Detection of Climate Change and Attribution of Causes" (WG I, Chpt. 8) were revised after approval by the full IPCC plenary in Rome in December 1995. See, for example, Dr. Frederick Seitz, "A Major Deception on 'Global Warming,'" *The Wall Street Journal*, June 12, 1996.

Q. But haven't temperatures risen about 1°F during the past century?

A. Yes, average surface temperatures have risen 1°F during the past century. But it's important to ask several follow-up questions--compared to what? and why? The "compared to" is easy to answer. The best observational temperature records start around 1850, about the time the world emerged from the grip of a Little Ice Age that began around 1400 A.D. Many scientists therefore are not surprised that temperatures began rising "naturally" once this long cold spell ended. The difficulty comes when scientists try to separate "natural variability" (such as the end of a 500-year cold spell) from mankind's impact on climate. The debate continues. For example, the U.N. science report that asserts "the balance of evidence suggests a discernible human influence on global climate" also once said: "Finally we come to the most difficult question of all: 'When will the detection and unambiguous attribution of human-induced climate change occur?' In light of the very large...uncertainties discussed in this Chapter, it is not surprising that the best answer to this question is 'We do not know.'"² This wording was deleted in the final U.N. report--even though the group of U.N. scientists who wrote the document had approved the earlier version in a full plenary session.

Q. What other natural causes might affect climate?

A. Solar activity for one. *Science* magazine recently reported that new evidence about 11-to 22-year sunspot cycles places "the sun's fingerprints ... all over the climate record....The correlation implies that the sun could have been responsible for as much as half of the warming of the past century."³ Other natural causes include 10,000-year shifts in ocean currents.

Q. But wasn't 1995 the warmest year since the 1850s?

A. No, 1995 was a rather average year. The confusion resulted when some media reported the results of a study that covered only 11 months--and then December turned out to be colder than normal. Moreover, the data reported came from thermometers, not the more accurate satellite data that has been collected by NASA during the past 17 years. In the words of Dr. Roy W. Spencer, the father

² *Climate Change 1995. Draft contribution of Working Group I to the IPCC Second Assessment Report. IPCC Working Group I, Fifth Session, Madrid, 27-29 November 1995. Document WGI/5th/Doc.3. Section 8.17*

³ "A New Dawn for Sun-Climate Link?," *Science*, Vol.271, 8 March 1996, p. 1360-61.

of satellite climate history, "the satellite measurements indicated 1995 to be the eighth-warmest year since the record began 17 years ago. Thus, on a globally averaged basis, 1995 was a very average year."⁴

Q. What about the Blizzard of '96?

A. Changes in weather should not be confused with long-term climate patterns. Weather varies constantly--and sometimes dramatically at local levels. Sir John Houghton, a co-chairman of a United Nations group on climate science, has noted: "The range of normal natural climate variation is large. Climate extremes are nothing new. Climate records are continually being broken. In fact, a month without a broken record somewhere would itself be something of a record!"⁵

Q. But aren't we having more hurricanes, tornadoes and other extreme weather events?

A. According to the U.N. body that studies climate: "Overall, there is no evidence that extreme weather events, or climate variability, has increased, in a global sense, through the 20th century, although data analyses are poor and not comprehensive. On regional scales there is clear evidence for changes in some extremes and climate variability indicators. Some of these changes have been toward greater variability; some have been toward lower variability."⁶ In short, weather in a given region always will be "above average" or "below average." When the two patterns are averaged, a statistically "normal" year can be computed and reported. Variations from this baseline are just that--regional variations. And regional changes in weather--or even climate--are natural and should not be interpreted as proof of global warming.

Q. What about the future--can computer models accurately predict future climates?

A. No. According to a recent *Science* magazine article, "In climate modeling, nearly everybody cheats a little."⁷ And a little cheating can make a major difference when predicting the average temperature in 2100. Their value is really by default--climate models are the only "forecasting" tool available to

⁴ Roy W. Spencer, "1995 the Warmest Year that Wasn't," *State of the Climate Report*, p. 11.

⁵ Sir John Houghton, *Global Warming: The Complete Briefing*, Lion Publishing, (Oxford, England, 1994), p. 15.

⁶ Working Group I Report, Section 3.5.4.

⁷ "Climate Modeling's Fudge Factor Comes Under Fire," *Science*, Vol. 265, September 9, 1994.

policymakers. But models must be used with extreme caution. The underlying climate science is incomplete, computers are not sophisticated enough to portray local or regional impacts decades in the future, and policymakers are considering measures that, if adopted, would have tremendous social and economic impacts.

Q. Suppose climate change is happening and we just don't know it. Is anything being done to reduce the risk of climate change?

A. Yes. Industrialized countries which signed the Rio Treaty in 1992 developed action plans to return their greenhouse gas emissions to 1990 levels by 2000. Most countries, including the United States, have relied on voluntary efforts, such as energy-efficiency improvements in heating, cooling, lighting and transport. Resources also are being conserved through various waste reduction and recycling efforts. And industry constantly invests in new technologies to reduce energy use.

Q. Aren't developed countries responsible for this risk?

A. From an historical perspective, it is true that emissions of developed countries account for most of the increase in greenhouse gas concentrations since the Industrial Revolution. However, developing countries now emit one-half of all greenhouse gases. In fact, if developed countries stopped all greenhouse gas emissions immediately, total atmospheric concentrations would continue to rise. Also, the question assumes climate change has occurred--and scientists haven't been able to quantify mankind's impact on climate.

Q. If scientists do find evidence that human activity significantly affects climate, will developing nations need to reduce emissions?

A. Yes. According to the U.N., developing countries likely will be responsible for as much as 68 percent of all energy-related carbon dioxide emissions by 2025 and approximately 76 percent of these emissions by 2050. So if climate change is real, developing nations will need to take action.

Q. Given what is known about climate change, shouldn't governments force businesses and consumers to change the way they use energy?

A. No. It would be a mistake to take drastic action now to reduce annual greenhouse gas emissions. It's the total concentration of emissions over the next 100 years that really matters. Viewed from this perspective, the basic choice is

how best to manage the total "greenhouse gas" budget. Several noted economists and scientists think it's best to let emissions rates rise for the next several years, then cut emissions more dramatically if additional research indicates such actions should be taken. This "go slow, learn more" approach has three advantages over the "act now" scenario: it allows for technological innovation and the economic turnover of the existing capital stock, it gives scientists time to collect needed information, and it's less expensive. For example, forced reductions now will cost about five times as much as reductions based on optimal timing and site-selection. This is not a "no action" program. Combined with voluntary industry actions, it's simply the most prudent choice given scientific uncertainties and the high cost of trying to quickly change the way businesses operate or people heat their homes, drive and, in general, live.

Q. But don't we waste lots of energy?

A. No, it's not true, as some claim, that the nation or the world can cut energy use 20% to 30% at no cost. As a U.N. report on climate change points out, these estimates are based on the notion that for one reason or another markets don't induce enough energy conservation. This cannot be the case. History shows that companies are constantly using energy more efficiently--from 1974 to 1991, energy intensity in U.S. manufacturing declined 48% while productivity rose 58%. This trend toward growing energy efficiency will continue. Clearly, companies would go out of business if they wasted 20% or 30% of their energy budget. And what family would waste that amount of money on unneeded heat, electricity or gasoline bills when that same money could be spent on food, clothing, medicines and school supplies?

CONSUMER IMPACTS OF A \$100 PER TON CARBON TAX

The Administration has committed the United States to binding targets and timetables to limit greenhouse gas emissions. Although no goal has been set, taxes, tradable energy use permits, or command and control standards and regulations likely would be needed, and all would have direct economic implications for consumers and the general economy. Using fictitious names, the examples below illustrate how consumers throughout the United States could be impacted by a \$100 per ton carbon tax. However, a \$100 per ton tax—which would result in declining economic activity and the loss, on average, of 600,000 jobs per year—might not be sufficient to meet the Administration's target. A tax as high as \$200 or \$300 per ton may be needed. Note, too, that economic impacts vary slightly by region and occupation.

John B., corn grower, Peoria, IL.

The carbon tax will not only affect John's business, it will have a cascading effect on many aspects of his life.

The cost of John's diesel fuel will rise about 60 cents per gallon, costing him more to plow his land. Fertilizer costs will rise as much as 19%, and the cost of propane needed to dry his corn will also escalate. The electricity he uses to service his farm will cost him approximately 50% more, and home heating fuel costs will rise by at least 20%. Higher gasoline and diesel prices will make it more expensive for him to get his corn to market, where the fuel costs associated with barging it down the Mississippi also will be higher. And, because exports could suffer when U.S. goods cost more than their foreign counterparts (i.e., those produced in developing countries), John would not be able to sell as much of his feed corn in the international marketplace.

John also sells his corn domestically. Because those who raise poultry and cattle must pay higher prices for John's corn to feed their stock, and because of higher electricity and fuel costs, they might decide it is more economic for them to send their animals prematurely to slaughter than to continue to purchase John's corn. In the short term, this will mean lower meat and poultry costs for consumers in Peoria and elsewhere; later it will mean tighter supplies and higher costs for McDonalds' hamburgers, Kentucky Fried Chicken, Sunday night roasts and Thanksgiving turkeys. John's higher feed corn prices will also lead to increased supermarket prices for such basics as milk and cereal.

Arthur R., proprietor, Corner Hardware Store, Phoenix, AR

As a result of the carbon tax, Arthur would face significantly lower profit margins in his hardware business. His electricity costs would increase more than 45%, and his heating costs would rise more than 25%. In addition, the products which he sells would become considerably more expensive to produce and distribute. His inventory of hand tools, small appliances, and miscellaneous household supplies would become noticeably more expensive. Due to the fact that his customers' real disposable personal incomes will be lower than they otherwise would be, many will decide to postpone projects around the house, thereby deferring the purchase of new power saws, lawnmowers, faucets, and other non-essential hardware.

Sally C. and Joseph B., newlyweds, Los Angeles, CA

Sally and Joe are getting married and setting up house. The combined costs of the following activities, all higher as a result of the carbon tax (some appreciably so), have forced them to realize that they will need to significantly scale back their wedding plans in order to stay within their budget, as well as reduce their standard of living upon their return: purchasing Sally's ring, travel and hotel costs associated with the honeymoon, furnishing a house, and purchasing a car.

Harriet and Jim P., retired, St. Augustine, FL

Harriet and Jim have retired and are living on a fixed income. As a result of the carbon tax, they now have less disposable income to spend on such necessities as food, clothes, utilities (which have risen more than 30%), drugs and toilet articles. Simply going bowling, or cooking a steak on their grill, has become noticeably more expensive. The new recreational vehicle they planned to purchase is now out of their budget.

Butch M., junior, State University, Little Rock, AR

Butch has decided to live off campus in his junior year at State University. He worked all summer to earn money, and he, too, is on a fixed budget. As a result of the carbon tax, his necessities will cost considerably more, e.g., the used car he needs to get him to and from class, the new tires and repair work necessary to pass inspection, utilities (50% higher), books, and writing supplies. These increased expenditures will leave him with less income to take a date out to eat, go to Homecoming, celebrate Spring break, and purchase CDs.

Juanita F., employee, Pacific North West Aircraft Manufacturing Co., Spokane, WA

Two hundred employees at Pacific North West are among the millions of Americans who will be laid off as a result of the carbon tax. Higher fuel prices, combined with more expensive input costs for aluminum, glass and electricity, will lead to significantly higher prices for airline passenger tickets and freight shipments. These higher prices will lessen the demand for these services, which will lead to reduced orders for new aircraft. To stay in business, Pacific North West will need to downsize. As a result, Juanita and many of her colleagues will be laid off. Meanwhile, she has to help clothe and feed her family, but governments, too, are taking in less revenue, so benefits may not keep pace with inflation.

Jerry A., chief of police, East Lansing, MI

The carbon tax also will raise the costs of administering public services. Jerry A., the chief of police in East Lansing, Michigan, will now pay appreciably more for his department's basic needs: utilities, new cruisers, gasoline, tires, automotive repairs, overhead and office supplies. As Chief A. routinely purchases seven new Crown Victorias per year, a carbon tax would increase his costs by more than \$9,000 annually. Tires on the fleet's 59 vehicles, which are changed every three months, will increase nearly \$3,000 per year. Charges for monthly automotive service also will be appreciably higher. School systems, prisons, fire departments, highway construction and maintenance operations, will experience similar operational cost increases.

In order to maintain the level of public services that existed prior to the carbon tax, Michigan residents must vote to increase sales, property, and income taxes.