



In Defense of Skepticism

Challenging the Political View of Climate Change

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Following is the text of remarks to the Economic Club of Detroit on November 18, 1996. Mr. O'Keefe is executive vice president of the American Petroleum Institute and chairman of the Global Climate Coalition.

I am honored and pleased to be here today. Honored, because the Economic Club of Detroit is one of the most prestigious platforms in the country. Pleased, because of your recognition of the importance of my topic.

I am arguing, in every forum open to me, that a change in the Administration's policy on global warming is crucial, not only to the future of the petroleum and automobile industries, but to the economic well-being of our nation. I will explain why I believe the Administration's policy is wrong and then describe the framework for a policy that matches our state of knowledge and the nation's economic interests.

In the past year, your speakers have included Lee Raymond, the Chairman of Exxon and of API, and Alex Trotman, Ford's Chairman. In some respects, my comments build on their message, which emphasized the bond between the automobile and the petroleum industries. Both noted our joint dedication to -- in Lee Raymond's phrase -- "the need for economic growth and energy development while recognizing the impact on the environment." Both also emphasized that the task of creating and sustaining the economic growth necessary to provide a brighter future for people all over the world is one of the great challenges facing all of us.

Regrettably, our ability to meet that challenge is in jeopardy. The fault is not with American industry. We are in the middle of one of the most creative and innovative periods in our history.

The culprit is the federal government. The Clinton Administration has decided that human activity is causing global warming, and that this compels immediate action to restrict carbon dioxide emissions which means to restrict energy use. Its current policy of supporting a legally binding international agreement would likely force us to reduce fossil fuel use about 20 percent by 2010. Since energy is the mainspring of economic progress, the impact would be dramatic. Even after implementing all reasonable conservation measures, there is no way to do this and still maintain healthy economic growth.

'Stealth Approach' to Control Energy Use

Economic analyses suggest that a large energy tax, equivalent to \$0.60 per gallon of gasoline,

would be required. It would cut our Gross Domestic Product by 2 to 4 percent -- or about \$250 billion. That is more than \$1000 for every adult in the United States. At least 500,000 jobs would disappear annually.¹ The oil and auto industries would be particularly hard hit, and the "Michigan Miracle" would become an economic nightmare. Economist Richard Schmalensee of MIT recently observed that all of this would feel like the "energy price hikes of the 1970's with a massive hangover."²

Schmalensee also pointed out that these estimates are based on an assumption that we would adopt the most efficient, market-based approaches. How many of you have faith that the federal government will adopt the most efficient policy mechanism? I need only mention the continued embrace of CAFE standards to make my point. Since energy taxes are about as popular as the Ohio State Buckeyes in Ann Arbor, government would almost certainly rely on the stealth approach of the regulatory system to control energy use. The results would be cumbersome and costly.

Even though cuts of 20 percent in energy use would do serious damage, some advocates regard them as only the beginning. They are thinking in much grander terms -- terms that essentially eliminate fossil fuel use. This would strangle economic activity. Thus, the stakes in this debate are high for all of us. Only the most urgent crisis would justify such drastic measures.

In reality, the Administration's policy is not justified by the facts. In fact, I will go further than this mild characterization -- the Administration seems determined to go down a road that leads to folly. Many of you may be familiar with the historical works of Barbara Tuchman -- *The Guns of August* and *A Distant Mirror*. She also wrote *The March of Folly*, which analyzes the tendency of governments to persist in ineffective and destructive policies even after their futility becomes obvious. Ms. Tuchman cites episodes from ancient to modern history in which facts were not just ignored, they were resolutely denied. Unless reversed, the U.S. government's policy on global warming could turn into a March of Folly, similar to Tuchman's example of the Trojans' decision to bring that horse within their walls.

Clearly, these statements brand me as a skeptic. The Administration has harsh words for people like me. As I indicated, my views make me a "naysayer and special interest bent on belittling, attacking and obfuscating climate change science."³ But, as Barbara Tuchman demonstrates, healthy skepticism is a virtue, not a vice. The stakes in the global warming debate are too great for us to accept casually assertions that are at odds with objective realities. So, today, I will offer a defense of skepticism.

I will start with a few facts about the state of the science. In the 1830's, it was first hypothesized that gases in the earth's atmosphere might create a kind of greenhouse, retaining solar energy and warming the planet. This theory is correct, and a good thing, too. Without this effect the average temperature of the planet would be about zero degrees Fahrenheit. What you think of as a typical Michigan winter would be your summer.

Creating a Problem to Match the Solution

Although attention has been focused on carbon dioxide, the most important and most prevalent greenhouse gas is water vapor. Carbon dioxide -- CO₂ -- accounts for much of the rest. CO₂ comes not just from fuel use but from natural sources, such as decay of plants and from animal respiration. In the 1890's, it was suggested that human activity might increase the concentration of CO₂ and cause an increase in temperature. This was regarded as an interesting hypothesis, but there was no evidence that it was actually occurring, so it caused no particular concern. Then came

the 1970's and 1980's, when predictions of impending apocalypse became common.

You may remember the Club of Rome's 1972 book *The Limits To Growth*. It extrapolated all trends upwards in a straight line, predicted disaster, and sold nine million copies in 29 languages. We were assured that famine and the exhaustion of petroleum were imminent. In the 1980's, the apocalyptic shifted to an impending cancer epidemic. During this period, some people were also talking about global cooling, which they attributed to human activities, of course. Then two hot summers shifted the focus to global warming. A NASA scientist told a Senate committee that there was irrefutable evidence that global warming was real and the bandwagon got rolling.

There is an obvious pattern to these episodes. A legitimate topic of concern that needs investigation -- and global warming is that -- is quickly labeled as, first, a certainty, and then as a crisis. The prescribed solution is always the same: The government must control the market system and industrial activity. As environmental writer Ronald Bailey puts it, "While their opinions on which direction the temperature is going have changed, their solutions remain the same. Freeze or fry, the problem is always industrial capitalism, and the solution is always international socialism."⁴ The apocalyptic gain ground by creating "synthetic truths," a blend of evidence, prejudice and anxiety, to exploit our fears.

Global warming fits this model perfectly. The science has been distorted in an effort to justify preconceived policies. Global warming remains a possibility, not an established fact. The level of atmospheric CO₂ has increased by about 25 percent over the past century. Some theorists thought this might cause an increase in temperature of almost 3 degrees Fahrenheit. Rather obviously, this has not happened. Temperature has increased by about one degree, and even this cannot be attributed to CO₂. Two thirds of the increase occurred before 1940, which was before any significant increase in CO₂ emissions. When natural variability is taken into account, the residual that might be attributed to human activities is probably no more than one-quarter of a degree. More recently, the computer models relied on by the proponents predicted that the earth's temperature should have increased about 1.0 degree Fahrenheit since 1979. Very precise satellite measurements show no increase.

Dangerous Climate Warming Still a Hypothesis

Realistically, global warming remains a hypothesis. Dire predictions are based largely on the projections of large, complex computer models, but none of the models purporting to demonstrate the connection between temperature and CO₂ work in practice. Although they are improving, they cannot replicate either past or present temperature patterns. Because CO₂ represents such a small fraction of all greenhouse gases, modeling its impact in a complex climate system is not easy. Professor Richard Lindzen of the Massachusetts Institute of Technology -- a fellow skeptic -- says the current models are about as accurate as Ouija boards. They cannot deal adequately with the effects of water vapor, clouds, heat transfer, solar activity, oceans, or natural carbon sinks.

Last Spring, you may have read about the latest report of the Intergovernmental Panel on Climate Change. This was reported as representing a scientific consensus that humans are having "a discernible impact on the climate" and that this consensus compels immediate action. This was nothing but sound-bite politics. The real scientific consensus remains that global warming is only a possibility and that science still cannot distinguish between natural variability and a possible human influence.

Statisticians say, "If you torture the data, it will always confess, and, if you torture it long enough, it

will confess to anything." The proponents of global warming support their theories by subjecting data to tortures that would horrify a medieval executioner. Any objective and informed reader of the Intergovernmental Panel's recent report would conclude that the case for drastic actions on near-term emissions is wanting. That does not mean do nothing. It does mean that action should be prudent, should be based on our state of knowledge, and should reflect the range of possible consequences. That is not what the Administration is offering.

When the weakness of the scientific support for alarmism is pointed out, the true believers respond by citing a maxim called the Precautionary Principle. In theory, this principle recognizes the importance of uncertainty and cost-effectiveness. In practice, it is interpreted as meaning that if it is conceivable that some environmental effect could happen, then society must take preventive action without serious regard for the cost. Following this line, the Administration is prepared to enter into binding treaty commitments to reduce CO₂ emissions in the post-2000 period.

While specific details are not yet on the table, some officials have mentioned returning to 1990 emissions levels by 2010. This commitment, by the way, would only apply to developed nations. Developing nations -- such as China, India and Mexico -- have made it clear that they have no intention of joining our march, except to the extent that we pay them to do so.

The story gets worse, too. Without the participation of developing countries, which will be the major source of CO₂ emissions in the next century, no actions by developed nations will make much difference. Realistically, developing nations are not going to forego their economic aspirations by reducing their energy use.

At this point, you might be asking yourself why we are worrying about policy proposals that are bound to self-destruct. The simple answer is that folly can inflict a great deal of damage before reality and reason prevail. History has proved this point over and over. The fact that the emissions reduction targets make no sense and would accomplish little does not mean they will not be adopted. After all, the Trojans did bring that horse into the city.

It is time to rethink mindless adherence to the Precautionary Principle. We must recognize that the number of possible environmental disasters that can be invented is infinite. As a society, we cannot react to every nightmare that someone can dream up, especially when the U.S. record demonstrates impressive progress in addressing environmental problems.

If we fritter away our resources on uncertain and illusory threats, we will have none left for the perils that turn out to be real. It is, after all, wealthy and innovative nations that have the best environmental record. They also have the economic wealth to address the environmental challenges of the future. At the same time, more than one observer of society's apparent acceptance of the "Precautionary Principle" has cautioned that a frightened society can talk itself into economic stagnation.

A More Rational Policy Approach

With these considerations in mind, let me suggest a better version of the Precautionary Principle. It should be based on the medical maxim: First, do no harm. The government should not rip apart the fabric of our society and economy on the basis of speculative hypotheses supported by fragments of uncertain data. This is not the best way to serve future generations. The government should strive to minimize the burdens it imposes while it works to clarify the situation.

The possibility that human activity will cause global warming is a legitimate concern, one that

justifies a response. But it also remains only a possibility. Scientists also acknowledge that there are alternative explanations for past changes in the earth's temperature -- pointing out the high correlation between temperature changes and solar activity.

The climate issue is complex, but the basic structure for addressing it is simple -- global warming is a problem in decision making under uncertainty. Business people like you deal with uncertainty everyday. You know the basic rules.

First, be slow to commit. Until you must, do not bet your company, or your country, on something that has a low probability of being true. If possible, postpone decisions while key uncertainties are resolved. In the case of global warming, we have time to address these uncertainties. Nothing we do in the next 20 years will have any appreciable impact on the world's average temperature in 2050 or 2100.

This fact is absolutely crucial, because costs are exceedingly sensitive to timing. Many capital investments, including those in energy and automobile industries, are long term. If change can be deferred until current equipment reaches the end of its useful life, and until more efficient devices are on-line, costs may be substantially less. Over the past 22 years, new technologies have enabled us to reduce energy intensity per dollar of gross domestic product by about 32 percent. This progress should continue.

Recent analysis by the Electric Power Research Institute and the Stanford Energy Modeling Forum concludes that an orderly, long-term strategy for achieving a scientifically justified CO₂ objective would cost only one-fifth as much as a program that requires near term cuts.⁵ Only the federal government would think that spending five times as much for the same outcome is a good bargain.

Invest in information. This is the second decision-making rule. Spend money to narrow the range of possibilities and to better understand the implications of alternative courses of action. We need to invest in information about climate science and about energy technology. We desperately need better climate models, for example. We also need to invest in contingency plans. What measures will most efficiently reduce future carbon emissions? What is the best time schedule? If reduction turns out to be necessary, how can we achieve reasonable goals without relying on mandates from a U.N. bureaucracy? The era of big government should not be replaced by the era of unelected international government.

The third rule is called "no or low regrets." Look for actions that will produce benefits under any set of circumstances. API has developed a list of emission-reducing actions that would be worthwhile even if the threat of global warming turns out to be another environmental hoax. We have shared our ideas with a wide range of groups including the Clinton Administration. For example, if the problem is global, it makes sense to look for cost-effective solutions through a wide lens. In contrast, a policy of committing to large emission rollbacks in the U.S. over the next two decades, regardless of the state of knowledge, alternative opportunities, or the timing of investment decisions, is guaranteed to produce big regrets.

The fourth rule is to consider alternatives. It is embarrassing, to say the least, when an option never considered seriously is the one you should have bet on. Even if the global warming problem turns out to be real, a crash program of prevention is likely to be the wrong option. In much of the world, the impact of warming could be neutral or even benign. In other cases, it might make more sense to commit resources to adaptation. These options need serious consideration and analysis, and they are not currently getting it.

Sound Bases: Objective Scientific, Economic Realities

For all these reasons, I intend to remain a skeptic. You should be one, too. That doesn't mean being a charter member of the Flat Earth Society. Skepticism in the pursuit of knowledge, truth and sound public policy is a virtue, not a vice.

Those who advocate a dramatic response to the climate change threat would make personal mobility and the freedom created by the automobile early casualties in the war against energy use. Those of us in the auto/oil partnership know that the American people place a high value on their mobility, and that we play a critical role in maintaining a strong, growing economy.

I began by noting that our ability to respond to the challenge of providing a brighter future was in jeopardy. How we respond to that threat may determine what kind of economic future is enjoyed by future generations. Together we must reach out to educate and involve others in the climate change debate. Knowledge, interest and insistence that policy be driven by objective scientific and economic realities are our best hope of exposing the political agenda hidden inside the modern Trojan Horse of climate change policy. If we succeed, our effort could be the basis for a book describing how a March of Folly can be stopped, and transformed back into a march of human progress and freedom.

¹ American Petroleum Institute, Policy Analysis and Strategic Planning Department, *The Cost Impacts of a Carbon Tax on U.S. Manufacturing Industries and Other Sectors* (Research Study No. 081, May 1996).

² Speech to American Council on Capital Formation Program on Climate Change Policy, Risk Prioritization, and U. S. Economic Growth. Washington, D.C., Sept. 11, 1996.

³ Timothy E. Wirth, Under Secretary of State for Global Affairs, Remarks on Behalf of the United States of America Before the Second Conference of the Parties to the Framework Convention on Climate Change, Geneva, Switzerland, July 17, 1996.

⁴ Ronald Bailey, *Eco-Scam* (1992), p. 80.

⁵ *EPRI Journal*, Nov./Dec. 1995

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