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SPOTLIGHT

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GLOBAL WARMING POLICY

NC Should Do Nothing

Summary: The NC General Assembly is considering creating a new commission to develop state policies to combat global warming. But the scientific issues involved are complex and unsettled. If North Carolina were to try and reduce greenhouse gas emissions it would have no meaningful impact on global climate or the health and wellbeing of North Carolinians. On the other hand it would destroy tens of thousands of jobs. In other words a green house gas reduction policy would have only costs and no benefits.

The "clean smokestacks" legislation, passed in 2002, mandates that a commission be established to study policy options for reducinc carbon dioxide (CO_2) emissions.[1] The General Assembly is currently considering legislation to establish such a commission. But it makes little sense for the state of North Carolina to pursue such policies. This is because there is nothing that North Carolina could do that would have any impact on the global climate, even if one believes that significant human-induced warming is occuring.

CO_2 and Global Warming

CO_2 is essential for life on earth. It is the gas that humans and animals exhale and plants, trees, and all forms of vegetation "inhale." CO_2 is also a "greenhouse gas." This means that, along with other important gasses such as water vapor (the most significant) and methane, it insulates the earth, keeping warmth from the sun from simply bouncing out to space. As Illinois Institute of Technology Professor Henry Linden points out, "without the greenhouse effect, our planet could support at most very primitive forms of life."[2]

The global warming "problem" arises because of a possible "enhanced" greenhouse effect. It is argued that because humans burn carbon-based fuels such as coal, oil, and to a lesser extent natural gas to fuel much of modern civilization, too much CO_2 is put into the atmosphere, causing excessive warming. This is the global warming hypothesis. Those who subscribe to this hypothesis use computer simulation models to predict that the Earth will warm anywhere from 1.5 to 4.5 degrees Celsius (2.7 to 8.1 degrees Fahrenheit) over the next 100 years as a result of human activities. Typically they also claim that human-induced global warming has already begun and point to increases in global temperatures, as measured by land-based thermometers over the last century, as evidence for their proposition. [3]

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Should North Carolina Take Unilateral Action?

First, it should be noted that the global warming hypothesis is controversial. Nearly every aspect of the theory is part of an ongoing debate in the scientific literature a point almost never recognized in the media. But assuming that the hypothesis is correct and that it implies that public policy action at some level should be taken to correct for global warming, should our state unilaterally force restrictions of CO_2 emissions? All evidence suggests that the answer is no.

Any action that North Carolina could take would involve all costs and no benefits, either to North Carolina citizens or in terms of improved global or local climate conditions. Not only is CO_2 necessary for life on earth but it has no adverse health effects and is generally not considered a pollutant. It has never been listed as a pollutant under the Clean Air Act and according to most observers would not qualify as a pollutant under any of the Act's provisions.[4] A reduction in the state's CO_2 emissions would bring about no improvement to the health or well-being of North Carolina's citizens.

Since CO_2 is stored in anything that is or once was plant life, like trees, coal, and oil, burning any of these things, whether for fuel or in a forest fire, will release that stored CO_2 back into the atmosphere. CO_2 emissions are therefore an inescapable by-product of burning carbon-based fuels and the only way to reduce these emissions, at least in any kind of reasonable time horizon, is for people to use less energy. But to force people to use less energy will make them worse off.

The problem is that energy use is not an end in itself but a means by which people make their lives better and more convenient. To assume that people are "wasting energy" is paternalistic. It is based on the presumption that there are some goals that people are using energy to accomplish that shouldn't be pursued. The fact is that if people could remain as satisfied with their lives as they are now while consuming less energy, it would already be in their interest to do so. Efforts to force our citizens to use less energy, through higher taxes or other coercive means, will necessarily make them worse off. Consequently, it should be no surprise that former President Bill Clinton's own Department of Energy concluded that to comply with the United Nations Treaty on Global Warming would cost the U.S. over $400 billion a year (4 percent of GDP) and reduce employment by1.4 million jobs.[5]

Since CO_2 has no direct harmful effects on human health, the question for N.C. policy makers is: Would there be indirect benefits for global climate change from a state-based CO_2 reduction plan? Even if one accepts the relationship between CO_2 emissions and global temperatures that is hypothesized above, the undeniable answer is no.

In 1998, Dr. Thomas Wigley, Senior Scientist at the U.S. National Center for Scientific Research, estimated the effect on global climate that would occur if all of the signers of the UN Treaty on Global Warming known as the Kyoto Protocol adhered to its provisions with 100 percent compliance. The treaty calls on industrial nations to reduce CO_2 emissions to 7 percent below 1990 levels by 2012. For the United States this would mean about a 35 percent to 40 percent reduction from levels that would otherwise be obtained. Wigley's results have implications for any policy that might be put forth by North Carolina. He found that 100 percent compliance with the UN treaty would result in global temperatures that would be a mere 0.13 degrees Fahrenheit lower than they otherwise would be by the year 2050.[6]

As University of Virginia climatologist Patrick Michaels has noted, "This amount would be undetectable with land-based thermometers."[7] Clearly, if global adherence to the Kyoto protocols would have such an insignificant impact on global climate then nothing North Carolina could do to reduce CO_2 emissions would be anything but symbolic.

Throwing People Out of Work

In 1997 a comprehensive study of the costs of carbon dioxide strategies was done by DRI/McGraw-Hill, a leading econometric forecasting and economic research group. In this study they looked at the employment effects on individual states of national policies to reduce CO_2 emissions to 1990 levels.[8]

The impact on North Carolina would be significant, with tens of thousands of jobs being lost (see table). The study predicts that there would be a 1.8 percent reduction in employ-

Projected N.C. Job Losses from a National Policy to Cut CO2 Emissions to 1990 Levels

	Total Employment	Manufacturing	Mining
After 5 yrs	53,036	8,146	163
% change	-1.40%	-1.40%	-4.60%
After 10 yrs	68,189	7,564	291
% change	-1.80%	-1.30%	-8.20%
After 15 yrs	45,459	6,400	429
% change	-1.20%	-1.10%	-12.10%
After 20 yrs	34,094	9,309	578
% change	-0.90%	-1.60%	-16.30%

Sources: DRI/McGraw-Hill and US Bureau of Labor Statistics, Employment and Earnings Data Series, 3rd Quarter 2004

ment statewide after 10 years. At 2004 employment levels this would translate into more than 68,000 lost jobs. Particularly hard hit would be the manufacturing sector with over 7,500 jobs lost after 10years and over 9,000 lost after 20 years. But by far the hardest hit in terms of percentage of jobs lost would be North Carolina's mining industry, which would lose over 8 percent of its jobs after 10 years and over 16 percent after 20 years.

These numbers do not tell us what the job loss will be for any particular set of policies that might be implemented by N.C. policy makers. On the other hand, they do give us an idea of the kinds of costs that can be imposed on the economy if policies are pursued to significantly reduce the state's CO_2 emissions. And as has been discussed, these will be costs that will generate no accompanying benefits to either North Carolina's citizens or the global environment.

Is the Science Settled?

Despite media hype and the proclamations of environmental activists, the global warming hypothesis *is* controversial. For example, the National Academy of Sciences, in a highly publicized but mischaracterized report on global warming,[9] stated that "a causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th century cannot be unequivocally established" (p. 17).

The report also notes other facts about the warming that has occurred over the last 20 years. It points out that due to inadequacies in the global warming computer simulations, there is no way to tell whether this warming is anything more than natural climate variation. "The fact that the magnitude of observed warming is large compared to natural variability as simulated in climate models does not constitute proof of a linkage [to increases in greenhouse gases] because the model simulations could be deficient in natural variability"(p. 23).

The NAS report also notes that land-based measurements of global temperatures are inconsistent with satellite readings, which have shown modest warming. "Satellite measurements beginning in 1979 show little warming of air temperature in the troposphere" (p. 17). This is especially significant because the global warming hypothesis predicts that temperatures in the upper atmosphere should show warming prior to warming at the surface. The NAS report acknowledges that they have no explanation for this theoretical contradiction: "The finding that surface and troposphere temperature trends have been as different as observed over intervals as long as a decade or two is difficult to reconcile with our current understanding of the processes that control the vertical distribution of temperature in the atmosphere" (p. 17).

In fact, this appears to be evidence that directly contradicts the global warming hypothesis, suggesting that the surface warming is not part of a pattern of human-induced global warming. As an aside, it is important to note that there are three measurements of global temperatures land-based, satellite, and weather balloon and only the land-based thermometers show significant warming over the last 25 years.[10]

Immediately after the release of the study and the misleading media reports that followed, Dr. Richard Lindzen, an MIT scientist and member of the NAS panel that conducted the study, wrote an article for *The Wall Street Journal* which attempted to set the record straight. "The full report make[s] it clear that there is no consensus, unanimous or otherwise, about long term climate trends and what causes them," he wrote. "Our primary conclusion was that despite some knowledge and agreement, the science is by no means settled."[11]

Conclusion

Even if one accepts the global warming hypothesis, it is clear that there is nothing that North Carolina should or can do about it. Any policies that lead to significant reductions in CO_2 emissions would cost the state tens of thousands of jobs while offering no compensating benefits. The idea of a costly state-based CO_2 mitigation policy becomes even more absurd in light of the fact that the science is by no means settled.

The "clean smokestacks" legislation calls for the establishment of a committee to make recommendations on policies to reduce CO_2 emissions. The mandate to form such a committee was not considered in light of sound science or economics. A CO_2 reduction policy for North Carolina would do nothing to either affect global climate or improve the health and well-being of North Carolina's citizens.

Dr. Roy Cordato, Vice President for Research and Resident Scholar

NOTES

1. See SB 1134, 2005
2. Henry R. Linden, "CO2 Does Not Pollute," *Public Utilities Fortnightly*, May 2001, p. 22.
3. For an excellent analysis of this data see Robert C. Balling, Jr., *The Heated Debate: Greenhouse Predictions Versus Climate Reality*, San Francisco: Pacific Research Institute, 1992.
4. See, Deborah and Steven Simpson, "The Power to Make Law: Can the EPA Regulate CO2 Under the Clean Air Act?" *Studies in Social Cost, Regulation, and the Environment*, No. 2, (Washington, D.C.: The Institute for Research on the Economics of Taxation), September 1999.
5. U.S. Department of Energy, Energy information Administration, *Impacts of the Kyoto protocol on U.S. Energy Markets and the U.S. Economy*, October 1998, p. 219, at www.eia.doe.gov/oiaf/kyoto/pdf/appc.pdf.
6. Thomas Wigley, "The Kyoto Protocol: CO2, CH4, and Climate Implications," *Geophysical Research Lette*r, Vol. 25, 1998, pp. 2285-88.
7. Patrick J. Michaels, "Long Hot Year: Latest Science Debunks Global Warming Hysteria," Policy Analysis No. 329, The Cato Institute, Washington, D.C., 12/31/1998.
8. "The Impact of Carbon Mitigation Strategies on State Economies," DRI/McGraw-Hill, August 1997.
9. "Climate Change Science: An Analysis of Some Key Questions," (Prepublication Copy) Committee on the Science of Climate Change, National Research Council, National Academy of Sciences, National Academy Press, Washington, D.C., 2001. All page numbers in this section refer to this document.
10. John R. Christy and Roy Spencer, "Global Warming: Evidence from the Satellite Record," Environmental Studies Program, Competitive Enterprise Institute, Washington, D.C., from www.cei.org.
11. Richard S. Lindzen, "Scientists' Report Doesn't Support The Kyoto Treaty," *The Wall Street Journal*, June 11, 2001, p. A22.