

spotlight

No. 346 – May 12, 2008

LOW-COST ENERGY

Critical for the Economy and Our Way of Life

KEY FACTS: • **Low-cost energy is not only critical to the economy, but also to our health, safety, and general welfare.**

- **Despite concerns over energy prices, policymakers are intentionally increasing energy prices through new taxes and regulations.**
- **The stated rationale for these harmful policies is to reduce carbon dioxide emissions in order to address climate change.**
- **These costly policies are being seriously considered even though they could devastate the economy and would disproportionately hurt the poor. Even worse, the most ardent global-warming alarmists admit these policies would have no effect on temperature.**
- **Among other policy options, federal and state policymakers are currently considering cap-and-trade programs. A cap-and-trade program could, by 2030, increase the price of gasoline in North Carolina to nearly \$8 a gallon and result in a net job loss of about 146,000 people.**
- **North Carolina legislators already passed a renewable energy bill that could cost North Carolinians a half a billion dollars annually by 2021.**
- **Higher energy prices means far less wealth for the state. Wealth is crucial to major technological breakthroughs; they can happen only when there is significant wealth to invest in research and development.**
- **Wealth also enables individuals to better adapt to extreme weather events, such as those predicted by global-warming alarmists.**

200 W. Morgan, #200
Raleigh, NC 27601
phone: 919-828-3876
fax: 919-821-5117
www.johnlocke.org

The John Locke Foundation is a 501(c)(3) nonprofit, nonpartisan research institute dedicated to improving public policy debate in North Carolina. Viewpoints expressed by authors do not necessarily reflect those of the staff or board of the Locke Foundation.

.....

energy is the lifeblood of our economy and allows us to have a high standard of living. Manufacturers rely on affordable electricity to produce the goods that we depend on. Our hospitals need electricity to operate the high-tech machines that provide us critical medical care. Fuel provides us the means to drive vehicles that give us the mobility that has transformed the nation. The way energy impacts our lives is endless—the point is, energy is not an abstract idea but an absolute need for a country to be prosperous.

more >>

North Carolina policymakers regularly express concern about the costs of energy, such as high gasoline prices.¹ Yet their actions tell a different story. North Carolina policymakers have recently adopted policies that will increase the cost of energy use and are considering additional policies that will further increase this cost. These actions are being taken in the name of global warming.²

This *Spotlight* will explain the importance of low-cost energy. It will detail why increasing energy prices to address global warming would devastate the North Carolina economy and be worse than pointless—higher energy prices would make it more difficult to address global warming (assuming that it is a necessary goal).

The Need for Low-Cost Energy

The Federal Reserve Bank of Dallas provides a clear and simple definition of energy and an explanation of energy's importance to the economy:

Energy is the power necessary to produce goods and services, and transport them to their destinations Energy is the power that drives the world's economy. In the industrialized nations, most of the equipment, machinery, manufacturing plants and office buildings could not operate without an available supply of energy resources such as oil, natural gas, coal or electricity. In fact, energy is such an important component to manufacturing and production that its availability can have a direct impact on GDP [Gross Domestic Product] and the overall economic health of the United States.³

Low-cost energy is not a luxury but a requirement to fulfill our most basic needs. The effect of energy prices is more than economic—it has implications for every facet of life.

It was the availability of low-cost energy that propelled the Industrial Revolution and allowed people to greatly increase their health, safety, and living standards. In the modern world, access to inexpensive energy sources continues to drive productivity. As John Reinker from GE Global Research states:

Societies have continually increased productivity through the harnessing of different energy sources, which has allowed for economic expansion and the development of the modern world The availability of abundant, low cost energy is key to a modern society and a necessity for continued economic expansion.⁴

Recent high energy prices are taking their toll on the economy. A Congressional Budget Office (CBO) study that examined the impact of high gasoline prices on the economy found:

GDP in 2006 is probably lower by about one percent [\$132 billion⁵] than it would have been if energy prices had not risen. In addition, the rise in energy prices added more than a percentage point to consumer price inflation in 2005 ... the average household's annual spending on energy goods and services rose by about \$1,700 between 2003 and 2006, and their saving rate dropped sharply.⁶

Intentionally Increasing Energy Prices in North Carolina

Global Warming Rationale. Despite the critical need for low-cost energy, some policymakers use the threat of global warming as the rationale for increasing the costs of energy. Fear about global warming is grounded in the theory that man-made carbon dioxide emissions are causing global temperatures to increase to problematic levels. To clarify, carbon dioxide (not to be confused with carbon monoxide) is an invisible and odorless gas that is required for life on Earth and is exhaled by humans.

While there is still a great deal of scientific debate surrounding the link between man-made carbon dioxide emissions and rising temperatures,⁷ there is a consensus about the impact of reducing carbon dioxide emissions: there is

nothing that the whole world could reasonably do to have any meaningful effect on temperature in the next 100 years.⁸ It would require going back to 19th Century levels of carbon dioxide emissions to have any real impact.⁹

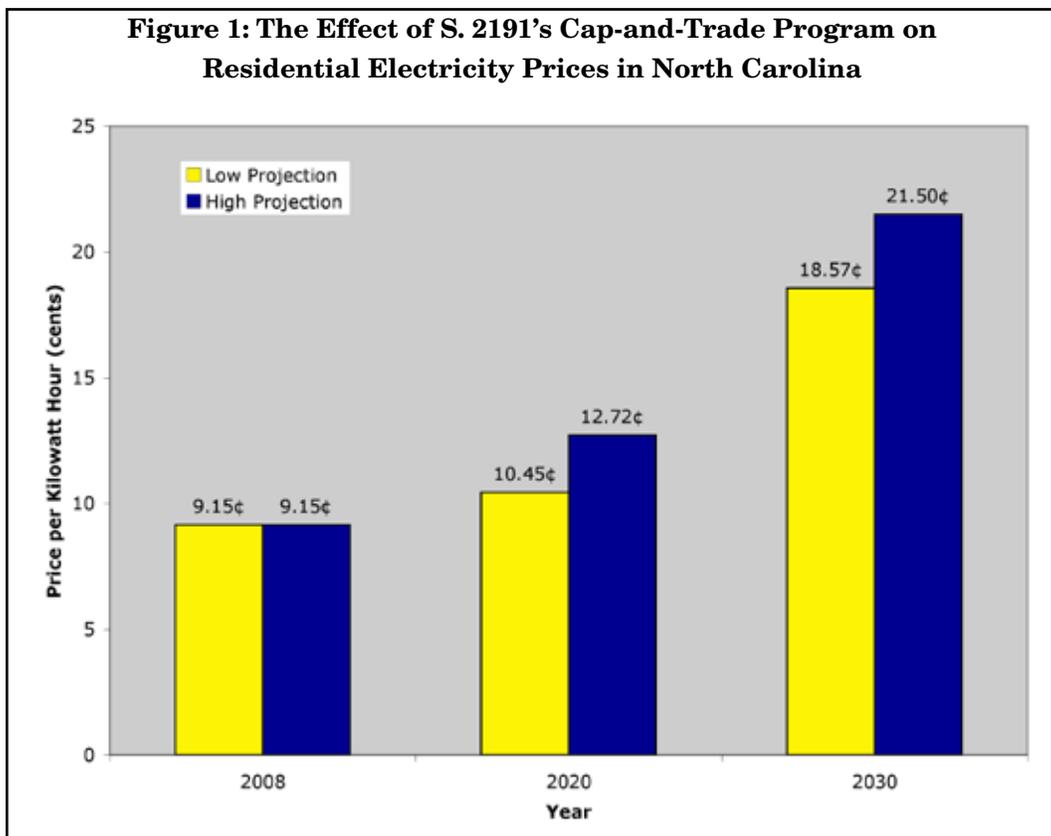
The Cost of Increasing Energy Prices. Policy proposals that have been passed or are being considered at both the federal and state levels would drastically increase energy prices for North Carolinians. On the federal level, Congress is considering increasing energy prices through a cap-and-trade program.¹⁰ The North Carolina Legislative Commission on Global Climate Change also is considering a state-only or regional cap-and-trade program.¹¹

A cap-and-trade program is the most significant policy initiative espoused by global warming alarmists. It would limit the total amount of carbon dioxide that can be emitted by regulated parties. Because carbon dioxide emissions are primarily a result of burning fossil fuels to produce energy, cap-and-trade systems are effectively a limit on the amount of energy that can be produced.

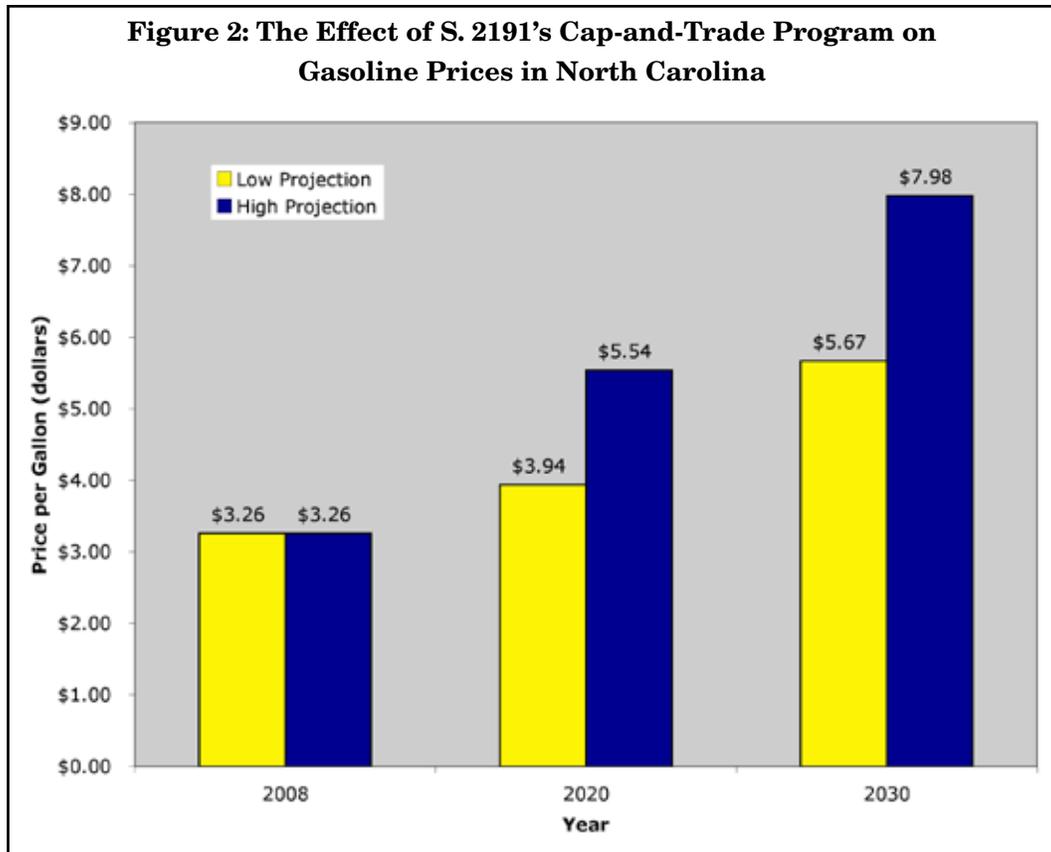
This energy-rationing scheme would lead to higher energy prices. One particularly egregious effect of increasing the price of energy use is that it has a disparate impact on low-income families. Low-income families must use a larger percentage of their income to meet their energy needs and, hence, they are disproportionately harmed by increases in energy prices.¹²

The National Association of Manufacturers and the American Council for Capital Formation have studied the primary cap-and-trade bill being considered by Congress (S. 2191).¹³ Their analysis¹⁴ has shown it would have the following impact on North Carolina (price increases are expressed in constant 2007 dollars):

- *Significantly higher residential electricity prices.* Prices would increase from 30 percent to 39 percent by 2020 and from 103 percent to 135 percent by 2030. Given a current electricity price of 9.15 cents/kWh,¹⁵ this translates to a range of 10.45–12.72 cents/kWh by 2020 and 18.57–21.50 cents/kWh by 2030 (see Figure 1).¹⁶



- *Significantly higher gasoline prices.* Prices would increase from 21 percent to 74 percent by 2020 and from 74 percent to 145 percent by 2030. Given today's average gasoline price in North Carolina of \$3.26 per gallon,¹⁷ this translates to an average price range of \$3.94 to \$5.54 per gallon by 2020 and \$5.67 to \$7.98 per gallon by 2030 (see Figure 2).¹⁸



- *Significantly less disposable household income.* There would be an annual average decrease in disposable household income of between \$836 and \$2,712 by 2020 and between \$3,525 and \$6,428 by 2030.¹⁹
- *Large-scale job losses.* North Carolina would lose between 39,065 and 58,764 net jobs by 2020 and between 110,232 and 146,735 net jobs by 2030 due to higher energy prices.²⁰
- *Falling gross state product.* GSP would fall by \$4.3-\$6 billion per year by 2020 and \$16-\$18.9 billion per year by 2030.²¹

At the state level, the North Carolina legislature has already passed controversial legislation, SB.3, which will substantially increase the price of energy. This legislation requires utility companies to generate 7.5 percent of their electricity from expensive “renewable” energy sources such as hog waste, wind, and solar energy.²²

The North Carolina Utilities Commission estimated only some of the costs of this bill. In their estimate, the Commission indicated that the additional cost for electricity could be \$500 million annually by 2021. Over the next 12 years, these additional costs could amount to \$3.6 billion.²³ The burden of this extra expense will be borne by utility customers.

In addition, the Legislative Commission on Global Climate Change likely will recommend further legislation that would increase the cost of energy. Examples of such legislation include:

- *NC Cap-and-Trade*. As stated above, North Carolina's would have its own cap-and-trade program or would join a regional cap-and-trade program.
- *Car Taxes*. There would be new taxes on cars based on fuel efficiency and other environmental factors.²⁴ These taxes would be designed to change the "fleet mix," meaning that taxes on some cars would have to be so high, consumers no longer would want to buy them. Because larger cars tend to be less fuel efficient, these new taxes would make it more difficult to own cars large enough to accommodate families or even carpoolers.
- *Driving Tax*. There would be a requirement that insurance companies charge higher premiums when customers drive more.²⁵ This tax and the preceding tax are simply ways of making the use of gasoline more expensive – they are indirect taxes on gasoline use.

Wealth is the Means to Solving Environmental Problems

Global-warming alarmists often argue that doing nothing is not acceptable, without ever explaining why draconian actions are appropriate when they would have no impact on temperature. The North Carolina Climate Action Plan Advisory Group (CAPAG), a controversial advisory board that developed about 56 government mandates to address global warming, provides insight into extremist solutions—its policy recommendation displays a belief that the only way to address global warming is through government.²⁶

Not one of the 56 options under consideration by the legislative global-warming commission considers how the government can get out of the way so private innovation can solve any perceived problem. For example, reducing government-imposed obstacles for new nuclear power plants was not even examined.²⁷ Given nuclear power's strong potential to reduce carbon dioxide emissions,²⁸ this failure demonstrates why little credibility should be afforded to the recommendations.

Assuming that global warming is a problem (a major assumption), there is something that should be done: the government should eliminate any policies that undermine wealth creation, such as policies that artificially increase energy prices. Research has shown that the countries that generate the most wealth have the best environmental records.

The Environmental Performance Index, constructed by the Yale Center for Environmental Law & Policy and Columbia University's Center for International Earth Science Information Network, shows that the wealthy Organization for Economic Cooperation and Development (OECD) countries, as a whole, rank well above the poorest countries over a range of environmental indicators.²⁹

When incomes are very low, people tend to focus less on the environment and more on their ability to meet their immediate human needs, such as food and shelter. However, once people acquire wealth beyond that required to meet their basic human needs, they are then able to pursue other perceived needs, such as protection of the environment.

Wealth enables individuals to better adapt to extreme weather events, such as those predicted by global warming alarmists. For example, an individual concerned with safety almost certainly would choose to be in the United States during a hurricane rather than in a developing country. The construction of homes is superior, as is sanitation and health services, among many other things.

On December 13, 2007, in an open letter to the Secretary-General of the United Nations, nearly one hundred international scientists, economists, and leading scholars, including some Intergovernmental Panel on Climate Change (IPCC) members argued:

It is not possible to stop climate change, a natural phenomenon that has affected humanity through the ages. Geological, archaeological, oral, and written histories all attest to the dramatic challenges posed to past societies from unanticipated changes in temperature, precipitation, winds, and other climactic variables. We therefore need to equip nations to become resilient to the full range of these natural phenomena by promoting economic growth and wealth generation...Attempts to prevent global climate change from occurring are ultimately futile, and constitute a tragic misallocation of resources that would be better spent on humanity's real and pressing problems.³⁰

It is unclear whether there will be groundbreaking solutions in the future that will have any meaningful impact on temperature. However, there is something that is certain. If there are to be major breakthroughs, it only will happen if there is significant wealth to invest in research and development. Low-cost energy is critical to wealth and to providing innovators the means to solving environmental problems.

Conclusion

Increasing energy prices rarely should be an option for policymakers. High energy prices reduce wealth and make addressing environmental problems far more difficult. Less wealth makes it more difficult to address the most important issues such as lowering infant mortality, curing diseases, and providing critical infrastructure.

State legislators should take a proactive approach to identify and eliminate policies that increase energy prices. They should ignore global-warming policies that, while achieving no benefit, would have a devastating effect on the health and welfare of North Carolinians.

Daren Bakst, J.D., LL.M., is Legal and Regulatory Policy Analyst for the John Locke Foundation.

Geoffrey Lawrence is a research intern for the John Locke Foundation.

End Notes

1. See, e.g., Alex Keown, *Wilson Daily Times*, "Lawmaker: Gas fees hurt tourism," January 14, 2006, archive.wilsondaily.com/archive_detail.php?archiveFile=/pubfiles/wil/archive/2006/January/14/LocalNews/14960.xml&start=0&numPer=20&keyword=tourism§ionSearch=&beginDate=1%2F1%2F1987&endDate=12%2F31%2F2006&authorSearch=&IncludeStories=1&pubsection=&page=&IncludePages=&IncludeImages=&mode=allwords&archive_pubname=The+Wilson+Daily+Times%0A%09%09%09; Jonathan Lower, *News 14 Carolina*, Political Connections, "Fuel Costs Stretching School Budgets," February 27, 2008, news14.com/content/politics/593352/fuel-costs-stretching-school-budgets/Default.aspx; *The News and Observer* (Raleigh, N.C.), "Fuel Tax Freeze Gains Backers," December 24, 2005, www.newsobserver.com/news/growth/traffic/gas/story/381412.html.
2. See General Assembly of North Carolina, Session 2007, Senate Bill 3, ncleg.net/Sessions/2007/Bills/Senate/HTML/S3v6.html; also see North Carolina Climate Action Plan Advisory Group, Draft Final Report, October 16, 2007, www.ncclimatechange.us/capag.cfm.
3. "Everyday Economics," Federal Reserve Bank of Dallas, www.dallasfed.org/educate/everyday/ev2.html.
4. John Reinker, Energy and Propulsion Technologies, GE Global Research, "Future Energy," [www.nae.edu/nae/naefoe/nsf/0754c87f163f599e85256cca00588f49/85256dad0044ef2a852570bd0052e8e6/\\$FILE/Reinker.pdf](http://www.nae.edu/nae/naefoe/nsf/0754c87f163f599e85256cca00588f49/85256dad0044ef2a852570bd0052e8e6/$FILE/Reinker.pdf).
5. Data from the U.S. Department of Commerce, Bureau of Economic Analysis, show that GDP in 2006 was \$13,194.7 billion. One percent of this number is \$131.947 billion. See www.bea.gov/national/index.htm#gdp.
6. "The Economic Effects of Recent Increases in Energy Prices," Congressional Budget Office, July 2006, www.cbo.gov/ftpdocs/74xx/doc7420/07-21-Energy%20DIST.pdf.
7. See, e.g., Oregon Institute of Science and Medicine "Petition Project," www.oism.org/pproject. The petition has been signed by over 19,000 American scientists and proclaims, "There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gasses is causing or will, in the foreseeable future, cause catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate. Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth."
8. See Thomas Wigley, "The Kyoto Protocol: CO₂, CH₄ and Climate Implications," *Geophysical Research Letters*, July 1, 1998. Wigley provides an analysis of the impact that the Kyoto Protocol would have on temperature change and concludes that, even at 100 percent compliance, it would lead to only a 0.26-degree (Fahrenheit) reduction in the temperature increase.
9. See Jorge Salazar, "Interview: Straight talk about Climate Change. Jerry Mahlman on Dealing With Your Grandkids' Problem," *Earth and Sky*, www.earthsky.org/shows/observingearth_interviews.php?id=49567. Dr. Mahlman explains that in order to stabilize atmospheric carbon dioxide concentrations, emissions would have to be reduced by 75 percent. As Mahlman admits, "That's a horrific number if you think about everything that you do: whether it's talking on the telephone, or driving our cars, or heating or cooling our homes. Think of everything that's manufactured, energy used to extract metals, for example." A 75-percent reduction in per-capita carbon dioxide emissions would be comparable to per-capita emission levels of 1895. See Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, Oak

Ridge, Tennessee, cdiac.ornl.gov/ftp/ndp030/global.1751_2003.ems; population data used to calculate per-capita emissions before 1950 are from the U.S. Census (averages of upper and lower estimates), www.census.gov/ipc/www/worldhis.html. See also Roy Cordato, "The Science Is Settled: North Carolina Can Have No Impact On Climate Change," John Locke Foundation *Spotlight* No. 304, December 10, 2006, www.johnlocke.org/spotlights/display_story.html?id=151.

10. See "America's Climate Security Act of 2007" (S.2191), thomas.loc.gov/cgi-bin/bdquery/z?d110:s:02191.
11. North Carolina Climate Action Plan Advisory Group, Draft Final Report, October 16, 2007, pp. 4-8, www.ncclimatchange.us/ewebeditprofile/O120F13617.pdf.
12. Terry Dinan, "Trade-Offs in Allocating Allowances for CO₂ Emissions," Economic and Budget Issue Brief, Congressional Budget Office, April 25, 2007, www.cbo.gov/ftpdocs/80xx/doc8027/04-25-Cap_Trade.pdf, p. 3.
13. *Op cit.*, note 10.
14. "North Carolina Economic Impact on the State from the Lieberman-Warner Proposed Legislation to Reduce Greenhouse Gas Emissions," National Association of Manufacturers and American Council for Capital Formation, March 13, 2008, www.acf.org/nam.html.
15. "Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State," Energy Information Administration, United States Department of Energy, www.eia.doe.gov/cneaf/electricity/epm/table5_6_a.html. Data used are for the month of December 2007.
16. *Op cit.*, note 14.
17. "Unleaded Gasoline Average Prices for North Carolina," GasBuddy Organization Inc., accessed March 22, 2008, www.northcarolinagasprices.com/mediaideas.aspx.
18. *Op cit.*, note 14.
19. *Ibid.*
20. *Ibid.*
21. *Ibid.*
22. *Op cit.*, note 2.
23. "Estimates of the Annual Incremental cost Impacts of Senate Bill 3 (For the 12-Year Period 2007 through 2018)," North Carolina Utilities Commission, revised July 8, 2007.
24. *Op cit.*, note 11, p. 5-10.
25. *Ibid.*, p. 5-15.
26. *Op cit.*, note 2.
27. *Op cit.*, note 11
28. "Whether or not nuclear power can solve the greenhouse gas problem has been (and will probably continue to be) debated but nuclear power clearly can significantly reduce emissions levels when it replaces fossil fuels. Unlike fossil fuels, nuclear emits no carbon dioxide (CO₂) or other greenhouse gases." Ronald E. Hagen, John R. Moens, and Zdenek D. Nikodem, "Impact of U.S. Nuclear Generation," Energy Information Administration, United States Department of Energy (2001), www.eia.doe.gov/cneaf/nuclear/page/analysis/ghg.pdf.
29. *Environmental Performance Index 2008*, Yale Center for Environmental Law and Policy and Columbia University's Center for International Earth Science Information Network, epi.yale.edu/Economic.
30. Don Aitkin *et al.*, signatories, "Don't Fight, Adapt: We Should Give Up Futile Attempts to Combat Climate Change," Open Letter to the Secretary-General of the United Nations, December 13, 2007, www.nationalpost.com/story-printer.html?id=165020.