

P.O. Box 8185
Charlottesville, VA 22906
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The Honorable L. Preston Bryant, Jr.
Secretary of Natural Resources
Department of Environmental Quality
Commonwealth of Virginia
629 East Main Street
Richmond , VA 23219

Dear Mr. Bryant, Jr.:

I was most pleased to meet you yesterday at the Governor's Commission on Climate Change held at the Miller Center of Public Affairs, University of Virginia at Charlottesville, and to participate in the Public Comment session.

The Public Comment time allotment per speaker did not permit me to adequately comment on a number of issues raised by the formal presentations. I therefore respectfully request that this letter be entered into the formal minutes of the meeting, and be circulated among the Commission members.

My background is that of a retired physician, holding two degrees in engineering, and a Virginia taxpayer. A few years ago, I became interested in the general topic of manmade global warming. It was fueled by the realization that several prominent climate scientists had been here at UVA and were actively publishing works concerning this theory.

The opening comments by the Director of the Miller Center of Public Affairs on the history of the Center were uplifting and inspirational. The goal of open public discussion free of political bias was the message I heard. President Reagan's "tear down this wall" exhortation remains stirring. In this context , the rest of the Director's remarks were a profound disappointment as they revealed a predetermined mind set on the theory of manmade global warming. The phrase "the science is settled" comes to mind. I missed mention, for example, of either the recently published "Summary for Policymakers of the Report of the Nongovernmental International Panel on Climate Change", or the "2008 International Conference on Climate Change" held in New York City earlier this month.

In keeping with my personal understanding of the original goals of the Center, I offer the following comments as my own "tear down this wall" of barricaded science which might differ from the opinions offered by the various speakers.

History offers numerous examples of widely held public beliefs and money making schemes , enthusiastically endorsed by the media and ruling authorities of the day,

and ending as disasters to all involved. A short list includes Tulipomania of the 1600s, and more recently, the Savings and Loan collapse, the Dot Com bust, and the still unfolding Subprime Mortgage debacle. In each case there was a widely held consensus that encouraged everyone to participate without caution. The resulting aftermath of ruined fortunes and reputations is part of history now and testimony to the power of mass hysteria and group think, i.e. "consensus". Further back in history, everyone knew that the Earth was flat.

With training and experience in two different fields of science, I have had many occasions to respect the dictum that a scientific hypothesis or theory is not automatically good forever. It may have a short shelf life and be replaced by a subsequent theory which is found to better explain a phenomenon. A hallmark of scientific discovery and progress is the welcoming of challenges to the theory of the moment, not the suppression or denial of contrary views. Sometimes this has come at great personal cost to the individual offering a contrary view. Galileo was imprisoned for daring to suggest that the Earth orbited the Sun. Voltaire noted that it was dangerous to be correct in matters where the authorities were in error. One speaker quoted H. L. Mencken hoping to disprove him. I offer another quote from Mencken: "The most dangerous man to any government is the man who is able to think things out for himself, without regard to the prevailing superstitions and taboos".

In discussing the facets of global warming, now renamed more appropriately climate change since the climate has always been changing, I think in terms of three aspects. There is global warming, the theory of manmade global warming, and the tangential benefits of increased efficiency in energy usage.

There is no issue in the matter of increased energy efficiency. This is a win-win situation for producer and consumer alike as long as the consumer perceives that he is getting a product that he wants, and not one being mandated by state edict irrespective of individual choice.

Global warming is a documented phenomenon amounting to about 0.8 C over the last hundred years. Most of that warming took place prior to the 1940s. Most of the carbon dioxide (CO₂) production from increased industry and population growth has taken place since the 1940s. This known as a lack of correlation. It is instructive to note that in the late 1950s there were dire warnings echoed in the media of scientists' predictions of a fast approaching ice age and catastrophic snow falls.

The theory of manmade global warming and climate change is predicated on the greenhouse effect of CO₂. Biology classes refer to mankind and other organic life forms as being carbon based. We all are part of Nature's carbon life cycle. Humans take in oxygen and food stuffs and in the process we generate CO₂. Our CO₂ is the natural fertilizer to plant life. This is basic science, and yet CO₂ is now demonized.

The fact that the U.S. Supreme Court has ruled recently that CO2 is a pollutant is a blatant political decision. We are now all ourselves guilty of exhaling CO2. The U.S. EPA has just now relented in its stance and has announced that it will be accepting public comments on the topic prior to any sweeping edicts governing CO2.

Before continuing with comments directed to specific speakers at the Commission meeting, I wish you to note the following (please excuse the bold print):

The record shows that there has been no global warming since 1998, with a slight cooling trend.

The record shows that since 2002 global temperatures have maintained a plateau.

Carbon dioxide levels have continued to increase during these same ten years.

The head of U.N. IPCC, Ranjendra Pachuri, has acknowledged these facts.

In light of the above, I ask why does the Commission seem so dedicated to combating global warming, and CO2 in particular? Why did none of the formal speakers mention this? I would call this analogous to a medicine looking for a disease to cure, and not finding such a disease, proceeding to invent one.

The speaker selected to speak on behalf of the U.S. EPA, spent much time describing the mechanics of the U.N.'s Intergovernmental Panel on Climate Change (IPCC). His presentation accurately portrayed the overtly political nature of this process. A large initial pool of scientific data is ultimately vetted by a select final few reviewers, said to number 50 or so, to conform to a predetermined conclusion. Reference is always made however to "thousands of scientists". Some of these scientists have in fact threatened to take legal action against the IPCC to have their names removed from the list of contributors, once they saw that their views were omitted or possibly distorted. Each word of the final report has been subject to the scrutiny of a representative from each country and what emerges is the least common denominator of unanimous political acceptance.

The final political document is titled the Summary for Policy Makers. This is not how science operates. When I pointed this out to the speaker, he was unable to grasp this concept of political vs. scientific methodology, and made reference to the peer review process as ensuring scientific validity. If you choose your peer reviewers based on their known views, it is likely that they will validate data in agreement with them and reject contrary views, regardless of merit. This has become a widely recognized fault in the scientific community. Research grants tend to go to those applicants who conform to the accepted paradigm of the day. In the field of climatology, one notes the departure of state climatologists, and departmental heads not in conformity with ruling governing bodies.

My field of medicine offers an example of group think and consensus which ultimately was proved wrong. When I graduated from medical school, I and thousands of other doctors and scientists “knew” that peptic (stomach) ulcers were caused by too much stomach acid. I watched my father be treated with milk, antacids, and a bland diet. Surgery was the last stage in failed conservative therapy. In 1983 two Australian physicians had the audacity to suggest that the disease was caused by a bacterium. They endured initial rejection and ridicule by their peers at meetings and in publications. The scientific method did proceed, although slowly, and in 1997 the U.S. Center for Communicable Diseases officially notified physicians that the bacterium *helicobacter pylori* was the causative agent. The treatment today is with antibiotics.

The 1990 IPCC Summary is said to have ignored satellite data, since they showed no warming. The 1995 IPCC report was shown to have had significant alterations made to the text after it had been approved by the scientists, in order to convey the impression of a human “finger print” in global warming. . The 2001 IPCC report made use of the now discredited “hockey stick” graph to portray unusual twentieth century warming attributed by implication to CO₂. The 2007 IPCC report gives scant attention to the growing scientific evidence pointing to well documented correlations of changes in solar activity and changes in the mechanics of the orbit of the Earth with corresponding cycles of global warming and cooling over the eons. A basic 1,500 year cycle has been identified as underlying global temperature changes over many thousands of years. Global temperature rises have been shown to precede by several hundred years the subsequent rises in atmospheric CO₂, rather than the proclaimed reverse. These correlations of global temperature history with sun spot and other solar energy variations have been shown to be several factors higher than for CO₂.

None of this bias in IPCC reports should be surprising, as the IPCC is an outgrowth of an anti- greenhouse gas activist group dating back to 1987 and the Montreal Protocol dealing with regulation of CFCs. I did find it surprising that this speaker from the EPA could not off hand answer the question of one of the Commission members as to the composition of the greenhouse gases, naturally occurring and man made. I offer the easily accessible data: water vapor is number one greenhouse gas at approximately 95%, CO₂ is 3.6% with about 0.11% of that attributable to human activity. The vast majority of the composition of the greenhouse gases nitrous oxide, carbon dioxide, and methane are not manmade, but are naturally occurring and result from basic biological processes.

When pressed on the point of how the IPCC climate computers deal with the number one green house gas, clouds and water vapor, he was unable to give a satisfactory explanation. At this point a member of the Commission offered that he had been a member of the IPCC, and proceeded to explain a positive feedback mechanism between CO₂ and water vapor.

It is almost embarrassing for me to have to note that neither one of these experts was aware of the recent publication by climate scientist Roy Spencer of data from NASA's Aqua satellite. This satellite was launched in 2002. The data contradict the climate models conventional assumption of this traditional positive feed back mechanism. The Aqua satellite shows the exact opposite effect, namely a negative feedback, limiting the greenhouse effect. As this profound change in climate mechanics is digested by the meteorological community, it is predicted that the climate models will have to be overhauled and will likely show greatly reduced projected warming related to CO₂.

As much was said about the IPCC computer generated predictions of future global warming, I refer you to comments of IPCC senior scientist Kevin Trenberth. "There are no climate predictions by the IPCC at all, and have never been; there are only "what if" projections of future climate that correspond to certain emissions scenarios". "None of the models used by the IPCC is initialized to the observed state, and none of the climate states in the models corresponds even remotely to the current observed climate". The IPCC computers have been unable to replicate past climate patterns with known hard data, the hallmark of validity for any such computer modeling program. Yet we are to believe computer generated climate patterns out to the end of the century, and base widely disruptive social and economic governmental mandates on faulty speculation.

I do not remember hearing any computer generated climate forecasts in 2007 which predicted the record breaking extreme cold weather in the U.S. and Middle East this past winter. No predictions either were made about the huge snow mass build up in the Western states this winter. Measured from January 2007 to January 2008 global temperature dropped about 0.75 C. This one year negative temperature swing was about the same as the positive temperature swing of the prior 100 years.

Engineers and others are familiar with GIGO, garbage in/garbage out, in reference to computer generated results. IPCC computers are not immune to this effect. Weather phenomenon are notoriously non-linear. Small inputs here, big changes result elsewhere. It even has a popularized name "The Butterfly Effect". Meaningful computer generated forecasts cannot be generated if you cannot identify, quantify, and input all the variables and their initial states. Computer curve fitting techniques are second best guesses.

The IPCC global warming theory indicates that the temperature rise due to increasing CO₂ emissions should be most prominent at heights of 5-10 km in the lower atmosphere. Satellite data show the contrary; most warming has occurred at the Earth's surface.

Just last week, National Public Radio carried the news that the data from 3,000 scientific robots, the Argo System, documenting the ocean temperatures at various

levels have failed to show any ocean warming over the past four or five years. Josh Willis at NASA's Jet Propulsion indicates that this is highly significant because 80% to 90% of global warming involves heating up ocean waters. With no ocean warming, there is no valid acute concern over ocean rise and coastal flooding beyond the historical norm of a gradual rise over hundreds of years. In this context, I bring to your attention one of Mr. Gore's climate advisors, Dr. James Hansen of NASA. Dr. Hansen is quoted as having testified to the U.S. Congress in 1988 that sea levels would rise several feet by 2000 because of global warming. With the benefit of hindsight, the actual data show a rise of about one inch.

Mr. Chairman, if you look back over these past pages here, I would hope that you would note that the IPCC climate computers and the future predictions made from them have failed. The real world data provided by Mother Nature contradicts these elaborate computer constructs, conclusions, and recommendations.

If I, as a physician, were to see a patient who consults me, say for a headache, I would take a history, examine him, and evaluate laboratory tests. If at the end of this process I were to tell him that he had a broken toe, he would tell me his toe does not hurt, there is no swelling in his toe, his toe is not inflamed, the X-ray shows no break, and he can walk without difficulty, and he still has his headache. If I were to still tell him that he had a broken toe in spite of all the contrary evidence, I would hope that he would run out the door and seek a second opinion.

The presentation by the representative from the Pew Center outlined governmental interventionist approaches to rationing energy. Energy consumption per capita is a gross but useful measure of the productivity of a society. If the U.S. consumes more energy and produces more CO₂ (a non issue at this point), perhaps it is because we produce more goods than other countries, or that our mix of industries use more energy. Politicians decry our loss of manufacturing jobs to other countries, say China. Driving industry across state lines or out of the country entirely to achieve some feel good governmental mandate means lost jobs and freedom of choice. China is quite willing to take these jobs, and the energy consumption there will rise and continue to push upward their demand for energy sources. This commodity price increase will be felt here, we just will not have those lost jobs.

If one is looking forward to the day in the future when the proposed 50% - 90% carbon emission reduction utopia is achieved, please note that Haiti and Somalia are the two countries said to meet these goals today.

The numerous examples of various state, local, and federal programs related to energy control given by the speaker are a testimony to the eagerness of governmental agencies to control individual freedoms. The pretense of dire global warming has produced a plethora of social engineering ideas as described by the speaker. Laws are envisioned restricting freedom of travel, use of private land, and mode of

transportation. This drift towards centralized planning in the U.S. is ironic to hear in the Miller Center considering that the “tear down the wall” speech by President Reagan led to the collapse of such ideology in communist East Europe. If the eagerness of big business to embrace government mandates is fully exploited, it points the way to what we called fascism in World War II. H. L. Mencken has a fitting quote here again, “The urge to save humanity is almost always only a false face for the urge to rule it”.

One of the speakers describing various Federal approaches to climate change appeared stumped as to the financial and other costs of the Lieberman-Warner bill. Such information is available on line. One analysis shows job losses between 1.2 million and 1.8 million by 2020; costs per household of \$ 739 to \$2927 per year by 2020; U.S. GDP reduced by \$151 billion to \$210 billion per year by 2020, and reductions in coal and electricity production of 35 and 12 percent respectively. The U.S. GDP is predicted to fall \$2.9 trillion by 2050. The “good news” is that CO2 would fall 25ppm and global temperature fall 0.1- 0.2 degrees C by 2095. So much pain for such a minuscule gain.

What is to fear in modest climate warming? Every year thousands of people (“snow birds”) flee the northeast and Canada for warmer Florida. More people die with winter related diseases and accidents than in the summer months. Winter heating bills and energy costs are less with milder winters (unlike the winter just past- the coldest in 15 years). Warmer weather, with more rain, and more CO2 (the free plant fertilizer from the atmosphere) cause plant crops to thrive. Less energy is spent producing artificial nitrogen fertilizers. Hurricane experts have found no association with global warming and hurricane activity.

The proposed carbon caps are an example of governmental creation and imposition of an artificial shortage and subsequent rationing. Who will get to set your standard of living? Who will decide what your carbon indulgence shall cost you? Are you ready to accept limitations on family size as each child represents another CO2 generator? A tax on carbon is a tax on your standard of living. As I wrote in the Wall Street Journal last year, the financial industry is enthusiastic over the opportunity to create new money making schemes , as they get to rake off profits on each trade. The subprime mortgage debacle comes to mind again. The poor consumer ultimately pays for all of this through higher prices for energy, food, and shelter.

The above noted report breaks out the projected costs on a state-by-state basis. For Virginia, one can see the negative impacts on jobs, decreases in disposable household income, negative impacts on energy prices, loss of economic growth, the major financial impact on low income families, and state budget expenditures. Proponents claim all sorts of new green industries will spring forth to provide new jobs. So far the U.S. has an unemployment rate around 5%. In Germany where the green industry has been pushed for a number of years, the unemployment rate hovers around 10%.

That same EPA speaker described the pending EPA project to document the net life cycle cost of biofuels. The speaker must have missed the report in the journal *Science* last month. Ecologists at Princeton and the Woods Hole Research Institute reviewed the environmental consequences of increased biofuel consumption. When the net environmental costs of land clearing and loss of land to food crops are tallied, greenhouse gas emissions from corn ethanol production and use will be *twice* as high as from regular gasoline for the next 30 years. They calculated that it will take 167 years before the reduction in carbon emissions from using ethanol nets out the carbon released in the growing of the corn.

A provision of the Lieberman-Warner energy bill specifically prohibits the purchase by the Federal Government of fuels whose net environmental cost is greater than that of ordinary gasoline. This provision would seem to rule out the use of biofuels as well as the import of Canadian tar sand derived oil. We will have to import more foreign oil to make up the deficit. This is the law of unintended consequences in full play.

One Commission member astutely pointed out that a gallon of ethanol laced gasoline contains less energy than a gallon of normal gasoline. While the government mandates higher mpg for cars, it mandates and subsidizes a fuel mix which lowers car mileage. Europe is already realizing that palm oil biofuel mandates are resulting in the destruction of rainforests in Indonesia and Malaysia. IPCC scientist John Christy published a study last year showing that if a world wide car mileage standard of 43 mpg were applied over the next decade, the net effect would be to reduce projected global warming by about 0.05 degree F by the year 2100.

The state of California just recently has had to greatly reduce its numerical mandate for zero emission vehicles. Industry is unable to produce a practical vehicle in the time frame mandated. Passing mandates is easy; fulfilling them takes place in the real world.

The Nature Conservancy must have finally overcome its angst dating back to the early 2000s over tree planting and reforestation to soak up CO₂. Those of us who have driven the beautiful Blue Ridge Parkway down towards Tennessee must have noticed the perpetual haze over the mountains. They are named the Smoky Mountains. Besides removing CO₂ from the atmosphere as a natural fertilizer, trees emit enormous quantities of methane, a greenhouse gas thirty times more powerful than CO₂, according to the Max Planck Institute. Trees exist because of the availability of CO₂. They do not exist to remove CO₂ from the atmosphere as I believe the speaker stated.

Angst was also expressed over displaced species. The creation of migratory pathways for such species was discussed. I trust that private property rights will not get trampled in the process.

The concern regarding the perceived northward migration of species to new warmer locales supposedly created by manmade global warming recently hit a fever pitch in the media over sightings of robins in Alaska. This was seized upon as further proof of displacement as the media claimed that there was no native Inuit word for robin in the past 10,000 years. A calmer search of the literature reveals a 1953 U.S.P.H.S. Publication from Alaska, and a 1913 Alaska bird book, both of which list native Alaska birds, including the robin, known as "Koyapigaktoruk".

The interest and passion of the students who spoke during the Public Comment session were evident to all. My heart goes out to the student from Brazil. Because of the sugarcane-for-ethanol boom there, genuine concern exists that subsistence farmers will burn and destroy Amazon rain forest to cash in on the sugarcane boom. Food crops are given up for the more profitable sugarcane.

The speakers from the Sierra Club presented moving appeals for their own chosen way of life. Spend more time outdoors, perhaps this means living outdoors as well, I do not know. If I understand their presentation correctly, they are not for wind power, not for coal power, not for nuclear power, not for new power transmission lines, not for dams or hydro power. They seem to advocate no new power.

The members of the Commission can observe the results of such a policy in action today in the country of South Africa. The country followed such energy restrictive policies and undertook no major expansion of power sources during the past five years or so. Last month the ruling government was in the politically uncomfortable position of apologizing to the public. Why? A nationwide shortage of electricity is reported to have led to widespread rolling brownouts, including the periodic shutting down of their basic gold and diamond mining industries. An attempt is now underway to try to catch up with their energy deficit.

The proposed new coal fired power plant here in southwest Virginia seems to me to present an ideal way forward for our projected growth needs. With so much scrutiny of the project by all agencies, the end result should represent the state-of-the-art in such design. The same should apply to the Lake Anna nuclear plant. One Commission member at the meeting was delighted to learn that nuclear power plants emit no significant greenhouse gases. Local job growth would be a benefit.

The suggestion, made by one of the students who spoke, that they have a voice in the Commission was warmly received. I also would like to make a proposal to the Commission. Does anyone on the Commission represent the public? The public is ultimately going to be called upon to pay for whatever recommendations evolve from these meetings. It is appropriate that the ones paying for this should not be mere bystanders in the process. Such an *ombudsman* would be beholden to no special political entity or special interest advocacy group, but would be expected to have an impartial, but informed, background on these topics.

Focusing on the public for the moment, I note that a recent study from Texas A&M University showed that the more informed the respondents in the study were on the topic of global warming, the less concern they had over climate change. Another study showed that those surveyed were unwilling to pay additional gasoline taxes to impact global warming. The public complains loudly over high gasoline prices. Increased taxes and layered on subsidies for ethanol production are not helping.

The topic of adaptation to climate change received very little emphasis during the presentations to the Commission. Adaptation has been the prime means by which humans and other life forms have survived the eons of climate change, and should be the primary focus of your attention, in my opinion.

In the Medieval warm period grapes were grown in northern England; prosperous Viking settlements took hold on the coast of Greenland (where did the name GREENland come from anyway?); Norse settlers in present day Nova Scotia named their new country Vinland, in recognition of the mild climate and the ability to grow grapes. The "little ice age" beginning in the 1300s forced the abandonment of these settlements, but the peoples adapted again and moved on to warmer lands.

The Dutch learned to build dikes, and the British built flood gates at the entrance to the river Thames. If Virginia wishes to lead the way, why not consider building flood gates to protect the entrance to Chesapeake Bay from some future storm surge? Downtown District of Columbia has some rudimentary flood protection dikes, why not some real protection for the tidewater areas here? I believe it would be a better investment of tax dollars than some of the proposals I heard today.

Mr. Chairman, I had hoped to write much less than I have, perhaps someone's eyes have glazed over by now reading this. I would, however, have been remiss in not touching upon the many points of error and omission in the presentations. Thank you for your interest. You and the members of the Commission have a daunting task in seeking to do your best for all the people of Virginia, not just special interest advocates. I hope that my comments are taken in the spirit of constructive public input as they were intended.

The H. L. Mencken quote that I would like to see *disproved* is his: "Every decent man is ashamed of the government he lives under".

Yours truly,

Charles G. Battig, M.D.