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The Green Deal: A Call for Changed Lifestyle

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Each year, the Margaret Chase Smith Library sponsors an essay contest for Maine high school seniors. This year, students were invited to submit essays explaining their proposals for a comprehensive national energy policy, addressing the topic from multiple perspectives and surveying the economic, environmental, political, social, and historical considerations that must go into any viable, long-term solution. We feature here Samuel S. Inman's thoughtful and well-articulated 2007 first place prize-winning essay.

From the beginning of humanity's heavy dependence on non-renewable resources as the power of our civilizations, we should have kept in mind three critical questions. These same questions must be asked now as we try to alter our policies. They are

> Does this energy originate from a renewable or unlimited resource?
>
> Does this energy's usage damage the environment?
>
> Can we secure this resource without war or otherwise undue aggression?

Our current system fails all three counts. The energy crisis and its associate, global warming, are threats to our welfare as a human race. They are unique problems in that most nations contribute to their growth and most nations are similarly threatened by their existence.

It is the United States, however, with its stability, economic power, and sense of purpose, that must lead the way in reforming energy usage. Americans share a sense of community and common cause. We band together after an attack, a storm, or a tragedy. We are ranked among the most generous contributors per capita to charities (*The Economist* 2007). Indeed, this aspect of the American way is ingrained into our psyche, from the Preamble to the U.S. Constitution, which states that our government is to ensure basic rights, the common defense, and general welfare for "ourselves and our posterity."

There is, however, a disconnect between our nation's stated commitment to ensuring the basic welfare of ourselves and our posterity and our current economic structure. We have based our entire economy and infrastructure on fossil fuels, mainly oil. As a result, our society and lifestyle have become almost completely reliant upon nonrenewable resources. Daily operations, from food transportation to emergency services, all rely heavily on gasoline. Even electricity, which powers our homes, hospitals, supermarkets, and a limited number of cars, comes in large part from the burning of fossil fuels. The United States Energy Information Administration reported that 43 percent of the nation's electricity comes from coal-fired plants, 19 percent from gas-fired, 12 percent from petroleum, and 14 percent from nuclear powered facilities (EIA 2002). All of these sources of basic electric power are nonrenewable and have been proven harmful to the environment.

With our reliance upon unstable energy established, most Americans can reach an accord on the need for energy independence. This nation imports large amounts of crude oil from nations such as Saudi Arabia, Iraq, Nigeria, and Venezuela (EIA 2007). Saudi Arabia, the United States' second largest supplier of oil, has been repeatedly reported to international organizations for human rights violations (Amnesty International 2003). Iraq, arguably one of the most unstable and anti-

American trouble spots in the world, is the United States' eighth largest supplier of crude oil and petroleum (EIA 2007).

Beyond the political and ethical questions of relying on Saudi or Iraqi oil, there is an even greater underlying energy crisis. Oil, coal, natural gas, even uranium are all nonrenewable, the Earth possesses a limited supply. In 1974, the noted American geophysicist Marion King Hubbard predicted that global oil production would peak in 1995 (Grove and Kristoff 1974). His predictions were offset by the launch of energy-efficient cars in the late 1970s, but since then his "peak oil" point has been placed somewhere between 2030 and 2050. The basic message, however, remains unchanged: fossil fuels (especially oil) are nonrenewable, and we will run dry relatively soon on the scale of human history.

Therefore, the situation that faces us is a so-called clear and present danger, but not one that is easily solved. The United States must find an energy source that can satisfy the three questions posed earlier. Then this nation, followed by the world, must undertake the massive task of converting operations to these new energy solutions. The alternative is to cling stubbornly to fossil fuels until their use destroys our habitat or until we run out and are forced to go back to candle power.

There is no panacea for this energy crisis. Currently, science has yet to offer any one source that could effectively shoulder the enormous weight that fossil fuels presently support. It is important to note here the two most important sectors that those fuels sustain: infrastructure (any and all buildings, other structures) and transportation (private cars, tractor trailers, airliners, other transports).

To support these sectors' energy needs, we must be innovative. Infrastructure is one of the most difficult challenges. To convert New York City from its current "dirty" power to clean, alternative power, it would require more than 86 square miles of land to house the solar, wind, and nuclear energy facilities some have suggested (Parfit 2005). As this is unworkable, the federal government must step up and promote analysis and innovation. A clean city initiative (CCI) must be created to work with the larger American cities. This CCI would call in local experts to assess the unique energy demands of any given city and make recommendations. Interestingly, the European solution has been to encourage suburb-like communities as opposed to cities. These mini-communities are often centered around an open space or park, with localized alternative energy (such as rooftop solar panels, coupled sometimes with another supplementary power source) to allow zero dependence on any utilities grid. Again, there will be no silver bullets, but with the full force of American talent and innovation, cities like New York *can* become free from fossil fuels.

Smaller towns present easier solutions. A famous town provides an excellent example of innovation. Woodstock, New York, has resolved to reduce its net carbon emissions to zero within a decade. While the resolution may be largely symbolic, actions have already been taken. On the roof of Woodstock's Town Hall sit 112 solar panels that provide so much power to the building that this solar heating system sends excess energy back onto the town's power grid (O'Connor 2007).

On an even smaller but equally important scale, George Callas of Brooks, Maine, has created a home that is completely "off the grid." Callas began work on his zero-net-energy home in 2004. Using a super-efficient design, solar panels, and wind-generated power, this adjunct instructor at Unity College has been able to take his home off the utilities net entirely (Crosby 2007). Callas' commitment demonstrates the day-to-day concern for conserving nonrenewable energy that all Americans should share out of respect for "the general welfare."

Transportation is an entirely different issue for the United States and must be attacked from a different angle. The United States contains millions of registered cars and trucks. Our highway system has 1,000,000 more tractor-trailers operating on it now than in 1993 (McNichol 2003). Although most of these vehicles are critical to our current economy, infrastructure, safety, and survival, they are nearly all running on gasoline, a commodity that has already been proven to be difficult to regulate (Sowell 2004).

There have been many suggestions to move away from gasoline. They range from better-made electric cars to hydrogen-fuel-cell cars to biofuel cars. Hydrogen, by far, looks the most attractive. It burns cleaner, is more efficient, and is more available than gasoline could ever be. However, the challenge of creating a feasible hydrogen fuel cell to use in cars has proved monumental. "Biofuels are the easiest fuels to slot into the existing fuel system," according to Michael Pacheco, the National Bioenergy Center director (Parfit 2005). It is important to note, however, that while biofuels satisfy all three critical questions about alternative energy, it will not be easy to completely replace fossil fuels with biofuels. Some estimates state that switching all the world's vehicles to biofuel would require doubling the amount of land used for farming (Parfit 2005). However, if we are to truly seek and find a viable alternative energy policy for the United States, we must be prepared to accept some necessary lifestyle changes. The amount of biofuel required could dip dramatically if automobile efficiency was raised to hybrid car levels.

Energy independence innovation *is* feasible nationwide, but it will require leadership. The federal government has been reluctant to tackle the energy crisis because of a lack of pressure from the American people. Nevertheless, the United

States needs an overwhelming overhaul, larger even than President Franklin Roosevelt's "New Deal." The time has come when the nation needs a "Green Deal," a system of efficient programs that can dispense loans and grants to dedicated innovators like George Callas. This new system would also facilitate the re-training of current energy-industry workers as they shift from managing fossil-fuel energy to new alternative energies. Green Deal acts would grant Congress the power to deal with major energy giants such as Shell, Mobil, Chevron, Texaco, and Exxon in an effort to turn their massive resources and profits into alternative power solutions. These same Green Deal programs would also need to create a nationwide timetable to plan and oversee the slow change from gasoline to energy independence.

Funding for such programs could potentially come from the United States government's lead: a complete efficiency overhaul of all federal facilities. The funds saved by trimming daily energy waste throughout national, state, and even local government facilities would be deposited into a massive Green Fund. In addition, lawmakers should *temporarily* rededicate the resources of programs such as the National Aeronautics and Space Administration (NASA), and the National Oceanic and Atmospheric Administration (NOAA) to the critical cause of weaning America off nonrenewable energy. All of these ideas would create a viable Green Deal that could grant America some energy independence again.

Sadly, thus far, Americans in general have been unwilling to implement the radical lifestyle changes necessary to move us towards energy independence. If Americans truly value their common welfare and wish to leave a better world for their own children, then now is the time to take action. We are the trustees of this planet, the home of humanity's future. We must go beyond purchasing fluorescent bulbs for our homes. We must realize that the time has come to buy fuel-efficient cars, to start investing in energy-independent homes, to turn down thermostats, and to turn off excess appliances. The federal government will not take the lead unless there is significant momentum from the true power source of this country: the citizens of the United States.

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