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10 in 8:
A Realistic Approach to Oil Reduction in America

by Will Brehm
Mountain Bike Trails

Laced throughout Lehigh’s 670 acres of woods is a complex network of mountain bike trails that run for miles and miles. Friendly to all skill levels, the South Mountain trails offer a wide variety ranging from easy-rolling single track to steep descents, technical bridges, and large jumps.

Sculpture Garden

Commonly mistaken for the former site of a fraternity, this field is tucked away through the woods at the top of The Hill and contains an eclectic mix of artistic pieces designed by students and local artists alike (including several pieces by Mr. Imagination). Initially the site of the campus leaf dump, the garden was founded several years ago by religious studies professor Norman Girardot while searching for a ‘spiritual place’ for the student body.

It’s easy for a President to say, “America is addicted to oil.” American presidents are notorious for proposing long-term instead of short-term energy strategies. Many of these strategies will not come into effect until after his or her presidency, and often rely on technologies that are not completely developed or economically feasible. The frightening reality is, however, that like any finite resource, oil will eventually run out. As of right now, the conservative Cambridge Energy Research Associates, Inc. predicts that in 20 or 30 years, the world will have already used half of all proven oil reserves under the Earth’s surface. More liberal estimates suggest that the world has already used half of the Earth’s oil reserves. While oil will undoubtedly continue to be a major source of energy for many years to come, the truth of the matter is: one day the world will have to function without oil.

America can either continue its reckless approach to oil consumption or it can phase in continuous small reductions to wean itself off of oil. The longer America waits to take action, the more severe the consequences will be, particularly because Americans currently consume almost twenty-five percent of the world’s oil. Alternatively, we can make small sacrifices now, which are engineered to improve our standard of living, and slowly, deliberately phase out oil before it phases out naturally. In the past, it has been difficult for a President to propose short-term goals in the beginning of an administration that can have an immediate impact on oil consumption within four or eight years. These policies put a president’s credibility and accountability on the line because if his policies drastically reduce the standard of living for Americans, re-election becomes problematic. However, it is by adopting a short-term policy that we can slowly begin to phase out oil consumption, and guarantee that there will be no drastic changes to our standard of living in the future. Each successive President thereafter can administer other small decreases so that over an extended period of time, America will be able to reduce its oil consumption.

Although it may seem radical, this policy aims to reduce America’s consumption of oil by ten percent in eight years. Ten percent is not a drastic change to either total consumption or the average American standard of living, although it might be just the boost America needs to begin the road to energy independence. As oil reduces slowly, Americans can learn to adapt to new lifestyles that less consumption requires. In 2006, a 10% decrease equaled approximately 2.0 to 2.2 million barrels per day (mbpd). Population increases will likely contribute to increased oil consumption; by 2015 World oil consumption is predicted to reach 103.0mbpd (Schlesinger and Giusti, p. 6). By 2025, total World oil consumption is predicted to equal 120.0mbpd (Energy Information Administra-
tion Annual Energy Outlook 2007, table B4). Assuming America will continue to consume approximately 25% of World consumption, America will consume between 25.7 to 30mbpd. This policy aims to reduce oil consumption between 2.6mbpd to 3.1mbpd—to overcompensate for long-term projections—within eight years, or by 2017.

To reach this goal, this policy will take a look at several approaches to energy efficiency, although the main focus will be on transportation. This policy combines old and new methods to counter the growing energy dilemma. According to “Winning the Oil End Game” by Amory Lovins and Kyle Datta, oil used in the transportation sector is predicted to increase by 72.8% by 2025, which makes transportation one of the most logical areas for improvement. For short-term approaches, conservation can quickly decrease consumption. Therefore, conservation in the transportation sector will be the main approach. However, combining different approaches, which reduce oil consumption by a small amount each, work together in a timely manner to add up to the 2.6 –3.1mbpd target.

The design of this energy policy assumes an eight-year time frame, the typical tenure for an American president, so the President would be held accountable for his or her policy. The approaches taken, however, must be more immediate than one might assume. Recently, the Bush administration has been working to implement mid-term goals such as Corporate Average Fuel Economy (CAFE) standards. These standards, a specific average mile per gallon minimum for an entire manufacturer’s fleet of cars in one year, aim to increase automobile efficiency. This much-needed piece of legislation will undoubtedly reduce oil consumption, but will take longer than eight years to fully take effect. Even if new, more drastic CAFE standards are passed in the beginning of the next President’s tenure, the standards will take time to come into effect because of the 6% car turnover rate in America (Mahedy). For 50% of American cars to meet new CAFE standards would take nine years, so even though CAFE standards will eventually reduce oil consumption, more needs to be done to decrease oil consumption in the immediate future.

Reducing the number of vehicles on the road will undoubtedly reduce the consumption of oil. There exist a number of ways to achieve this goal, mainly at a small expense to the average citizen (i.e. increased gasoline prices). Without accounting for negative externalities—increased damage to the environment, congestion, and chance for accidents – the true price of driving becomes skewed. Americans must be made aware of these externalities and be held accountable. To hold the citizenry accountable, the President should consider the implement of two approaches.

The first approach centers on reworking the price of gasoline to reflect its true cost. Oil companies could increase the cost at which they sell oil to accomplish this goal. The government would need to force oil companies to push gasoline prices up by increasing corporate taxes. Many oil companies receive reduced corporate income taxes that skew gasoline prices. For example, the average price/gallon of gasoline in America in 2005 was $2.27. The average price/gallon in Beirut, Lebanon was $2.63, $4.24 in Tokyo, Japan, and $6.48 in Amsterdam, Netherlands (CNNMoney.com). If American oil companies had to pay more money to the government, the price of oil would increase as oil companies try to keep profit margins equal, if not increasing. The companies—not the American government—would indirectly pass the price burden onto the consumers. This approach, however, could result in the tax being wrongly allocated once in the government’s control; the new money would come from companies, not consumers. The second approach provides stronger guarantees for proper reallocation (mainly to increase the standard of living of citizens to offset the loss of standard of living from increased gasoline costs) of the taxed money.

The second and even more aggressive approach is a government-implemented tax on gasoline. Though this would likely suffer severe political backlash, raising the federal and state taxes on gasoline, which the Energy Information Administration reported stood at 19% of the
total cost of one gallon of gasoline in 2005 (or 43 cents), it would decrease consumption as well as help long-term goals like combating global warming (one of the negative externalities) and funding alternative fuels. The Congressional Budget office predicts that a 46 cent-per-gallon increase would cost the economy, mainly the consumers, $2.9 billion, but would save 90.5 billion barrels within 14 years (Dinan and Austin). By the 15th year a 10% reduction in oil consumption would occur. Using a gasoline tax in conjunction with other policy approaches could achieve 10% within 8 years. The $2.9 billion could be invested into a gasoline fund that provides tremendous advantages.

The money earned from a tax could be used for various programs that would help the citizenry, such as increasing the social security fund or even as rewards for private companies conducting research and design in alternative fuel. A tax on the citizens would provide certain guarantees. First, the new money would be put into

(Right) The Bethlehem Steel Co. Band at Lehigh. Courtesy of Special Collections, Lehigh University Libraries.

(Below) The Bethlehem Steel Co. Baseball team in 1918. Courtesy of Special Collections, Lehigh University Libraries.
The longer America waits to take action, the more severe the consequences will be, particularly because Americans currently consume almost twenty-five percent of the world’s oil.
Through lowering the speed limit, clearing congestion, and reducing petroleum-generated electricity, America can quickly reduce oil consumption by four percent. If an increase in gasoline prices can reduce consumption 10% within 15 years, a reduction of six percent within eight years is absolutely feasible. If the government increases the Gas-tax and puts the money into an interest-earning fund, the small decline in the standard of living will be elevated by the increase in the social institutions of America.

Education rests at the heart of true change in the American understanding of oil. The government should begin to design an educational approach for public schools to inform students (and soon-to-be drivers) of the issues of over abundant energy consumption and its effects on America's future, especially in terms of global warming. This effort could profoundly change the energy discourse, allowing for different governmental regulations to pass with great public support. Over time, as Americans begin to understand that oil is finite, future energy legislation will gain the support of American citizens. Each small step America takes now reduces the drastic lifestyle shift that will inevitably occur when the fateful oil draught reaches American gas stations. Phasing in small reductions in consumption will ease the shift away from a petroleum economy. Unless America has informed citizens, wise decisions and support for the slow change will be unlikely.
10 in 8: A Realistic Approach to Oil Reduction in America

by Will Brehm