

Strategy Research Project

U.S. ENERGY SECURITY – THE CAMPAIGN WE MUST WIN

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USAWC STRATEGY RESEARCH PROJECT

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ABSTRACT

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The security and continued strength of the United States hinges upon the ability of Americans to quench their demand for petroleum. Unchecked consumption, together with over-reliance upon foreign oil-producers who do not share the desire for a strong America, constitutes the nation's largest vulnerability. This is the result of a short-sighted and ineffectual national energy policy that has worked against U.S. interests and unwittingly made adversaries stronger. This research paper exposes fundamental flaws in this policy and argues that continuation of the same would be disastrous. It presents a strategic design for an improved energy campaign that would reduce oil consumption, encourage rapid transformation to alternative energy sources and place the United States in a controlling position in the global oil market. Four logical lines of operation are proposed which would see the United States use its disproportional demand for oil as a global controlling mechanism. By regulating American consumption of oil through internal controls, the nation can create powerful leverage over global oil production, pricing, and revenues, to the nations' advantage, while steadily weaning America off of petroleum dependence and the elimination of its largest vulnerability.

U.S. ENERGY SECURITY – THE CAMPAIGN WE MUST WIN

We call our brothers in the battlefields to direct some of their great efforts towards the oil wells and pipelines. . . . The killing of 10 American soldiers is nothing compared to the impact of the rise in oil prices on America and the disruption that it causes in the international economy.

—A Jihadist Website¹

The U.S has a voracious appetite for energy in general and oil specifically. We depend on oil for 97% of our nation's energy needs, consuming 26% of the world's oil output while accounting for 5% of its population.² Our industry, commerce, transportation and economic livelihood require the uninterrupted supply of energy. In all its forms, energy underpins our very existence and one cannot understate the primacy of oil to our energy needs and survival.

Yet, as important as this resource is to U.S. security, our energy policy falls far short in addressing the current and future needs of the nation. We continue to increase oil consumption and do little to mitigate our vulnerability to unstable oil prices. Rising global demand and competition threatens our ability to secure long term economical access to this vital resource. Additionally, we continue the unsettling trend of increased dependence on external oil supplies, weakening ourselves economically while strengthening our enemies.

This research paper addresses the effectiveness of U.S. energy policy and proposes a new approach that seeks to reinforce America's strategic economic position. The paper begins by discussing the four policy initiatives currently employed to provide and safeguard energy. These include diversifying U.S. sources of foreign oil, managing inventory in the strategic petroleum reserve, mandating domestic efficiency standards, and providing renewable energy incentives. The opening concludes that current energy

policy fails in two ways: it does not directly address consumer demand as the significant driver of consumption and the nation's resultant dependency; and it does not recognize U.S. primacy in the global oil market as an inherent advantage. The current course of unchecked consumption and weak energy policy bodes ill for America's future.

The second section of this research paper offers an alternate energy strategy campaign designed to ensure near term economical access while charting a course toward an independent and eventually oil free future. It presents a campaign design consisting of four lines of operation that together would fundamentally redirect the behavior and attitude of the nation. These include: (1) increase U.S. oil production by tapping into domestic sources; (2) suppress domestic demand for petroleum through taxation; (3) apply U.S. economic power to shape the global oil market and weaken potential adversaries; and (4) incentivize alternative and renewable energy using consumer demand as well as direct investment. The general conclusion of this work is that the United States requires a strategic energy campaign that utilizes the synergy of multiple lines of operation in order to produce the desired and momentous effect of freeing the nation from the yoke of foreign oil, and restoring America's economic strength.

Background

1970 marked the point when the U.S. could no longer produce enough oil to satisfy its own demand and became dependant on oil imports from foreign sources.³ Only three years later this emerging vulnerability was exploited. In 1973 the Arab-OPEC oil embargo dealt the nation a significant blow as the suppliers of oil used their newfound leverage to deny U.S. access to this critical commodity. Yet despite this clear

and troubling foreshadowing, U.S. dependence on foreign oil imports increased relentlessly over the next 35 years. We now import almost 60% of our oil needs.⁴ That dependence has created significant problems for the country.

Current Policy

Since 1970, the United States has pursued an energy strategy that attempts to secure access to petroleum resources while minimizing the vulnerabilities associated with dependence on external supplies.⁵ This has been attempted through four separate initiatives; diversifying and locating additional sources of oil, managing inventory in our strategic petroleum reserve, attempting to increase the efficiency of our energy consumption through legislation and incentives⁶, and more recently, providing incentives for the use of alternative and renewable energy technologies. The effectiveness of these initiatives is limited, as explained below.

Our oil comes from diverse sources. The United States consumes 21 million barrels of oil per day⁷, 12 million barrels (about 58%) of which is imported. Of those 12 million barrels, the top five suppliers are Canada (19%), Saudi Arabia (12%), Venezuela (11%), Mexico (10%), and Nigeria (9%).⁸ With the exception of Canada, each of these countries presents diplomatic or stability challenges that must be dealt with in order to keep the flow of oil coming. Of similar challenge is that almost half of our oil imports still come from OPEC nations who continue to use their collective leverage to maximize global oil prices. While diversification is more sound than single source dependence, geo-political realities suggest that any substantial reliance upon foreign oil sources creates a strategic vulnerability and considerable uncertainty.

The Strategic Petroleum Reserve (SPR) is the nation's emergency energy 'savings account' and is another fundamental part of our current energy security strategy. Established in the aftermath of the 1973-74 oil embargo, the SPR is the largest stockpile of government-owned emergency crude oil in the world. It provides the President with a response option should a disruption in commercial oil supply threaten the U.S. economy. It also provides the nation with an emergency national defense fuel reserve.⁹

As of January 22, 2009, the inventory of the SPR was 702.8 million barrels. This equates to 33 days of oil at the daily U.S. consumption level of 21 million barrels a day, assuming the oil could be retrieved at a rate that would satisfy current demand.¹⁰

We continue to expand our SPR. The Energy Policy Act of 2005 directed that the SPR be filled to a one billion barrel maximum. Since the physical capacity was (and still is) 727 million barrels, this requires a multi-site expansion effort that will not be completed until 2018. Recently SPR plans have expanded even further. In 2007, President George W. Bush announced the decision to once again increase the SPR to 1.5 billion barrels "to further protect America against disruptions to our oil supply."¹¹

Capacity is not the only measure of the SPR capability. "Drawdown rate" must also be factored into any discussion of accessing the reserve. This is the maximum limit at which oil can be pumped out of the ground and made available for use. Current maximum drawdown rate is 4.4 million barrels per day, sufficient to meet only about 21% of the nation's daily consumption.¹²

When considering this data, it becomes obvious that although the SPR is a critical piece of U.S. energy security policy, it is a safety net that is very limited in size

and duration. Applied carefully, it has the ability to absorb some of the nation's demand and help to stabilize prices for a short time. By no means, however, should it be expected to shoulder the nation's energy needs in the event of another global oil crisis.

Efficient consumption is also an important component of any strategy that would reduce America's dependence on oil. The government recognizes this and appears to favor mandating energy efficiency standards as a primary method for encouraging conservation. After the 1973 oil crisis, the CAFE (Corporate Average Fuel Economy) standard was put in place to raise the average U.S. automobile fuel economy to 27.5 miles per gallon (mpg). Additionally, there have been numerous federally mandated appliance and equipment efficiency standards established over the years. Although well intentioned, these efforts have not succeeded in decreasing our overall consumption.

Most recently, the 2007 Federal Energy Legislation raised the efficiency bar yet again by requiring a 35 mpg CAFE standard for cars and light trucks by 2020, with "maximum feasible" increases beyond this date. This legislation sets in motion the first fuel economy standards for heavy-duty trucks, updates current federal standards for residential appliances, and puts forth an initiative for all new commercial buildings to use "zero net energy" by 2030.¹³

However simple it may seem to enact rules to reduce consumption, the effectiveness of mandated efficiency standards is dubious. Legislating efficiency presupposes a knowledge of exactly where and how to apply multifaceted corrective pressures. It requires the detailed and exhaustive crafting of standards as well as persistent oversight and enforcement to force compliance. Despite best efforts, there exist exploitable loopholes or omissions in nearly every piece of legislation. A perfect

example of the unintended consequences of a mandated efficiency standard was the creation of the now ubiquitous Sport Utility Vehicle (SUV). In response to the government's imposition of the 27.5 mpg CAFE standard, automakers took full advantage of the less stringent 21 mpg requirement for the "light truck" classification, and created a new type of vehicle built on a light truck chassis. The existing high passenger capacity station wagon, now subject to the higher 27.5 mpg requirement, was replaced virtually overnight with a new and less efficient class of vehicle. SUVs (along with light trucks) now account for 51% of all U.S. auto sales¹⁴ and, as of 2006, the average fuel economy of all vehicles in this class was a meager 18 miles per gallon¹⁵. In this case, the government's imposition of efficiency standards to curb oil consumption not only failed to accomplish its objectives, but actually drove the market toward less efficient alternatives.

Efficiency mandates will never have a significant impact on our oil consumption. Unintended and counterproductive effects aside, goals remain unrealized because all efforts focus on the **suppliers** of our vehicles and appliances, putting on them the financial burden of creating efficiency for the consumer. No legislation has yet been directed at convincing the American **consumer** to get serious about cutting back on consumption.

Renewable energy incentives are a fourth component of our energy strategy. Once the technology matures, infinitely renewable energy sources such as wind and solar power hold much promise for an independent oil-free America, and measures already exist to move us in that direction. A number of incentives including tax credits, rebates, loans, grants, and production incentives have been put forth by the federal and

state governments to encourage the development and use of renewable energy. The U.S. government alone spent an estimated \$4.8 billion in renewable energy subsidies in 2007¹⁶ and renewable energy now accounts for over 7% of U.S. energy production.¹⁷

As promising as these indications of a new direction may appear, they have in actuality reduced little of the nation's foreign oil dependence. A couple of sobering realities illustrate this. First, despite the increased production, total U.S. energy supply total energy demand ratios remain unchanged. Apparently, our increased consumption has kept pace with, and even neutralized, production gains we have made with renewable energy, and it appears that subsidies have had little effect other than to help prevent further declines in supply. Second, the renewable energy sector includes hydroelectric dams and biofuel production, large scale sources which account for a majority (36% and 53% respectively) of current renewable production. These present significant environmental or subsistence challenges that can far outweigh their positive impact on energy supply. They often come at a troubling cost and are not "free" sources of energy, such as that provided by wind and solar power.

Despite current energy policies and best efforts to date, the nation remains acutely vulnerable. Consumption continues to increase, we remain dependant on foreign (and in many cases, unfriendly) sources to meet our energy needs, and the economy is still at the mercy of the oil market and those who work to manipulate it. The U.S. needs a more proactive energy security policy that not only secures economical access to existing foreign and domestic petroleum resources but also acts to reduce the nation's vulnerability in the global oil market and sets a course for total energy independence.

The New Strategic Energy Campaign

The United States should initiate a bold new strategic energy campaign with an initial objective of regaining national energy independence. The campaign should have a twofold end state of elimination of oil as the major source of U.S. energy and positioning of the U.S. as the dominant producer in renewable and alternative energy. This campaign should be planned and executed along four simultaneous lines of operation: (1) increase domestic oil supply; (2) reduce oil consumption; (3) actively shape the global oil market to U.S. advantage; and (4) invest in and incentivize alternative and renewable energy. This campaign must be a unified national effort of similar magnitude as our historic drive to send a man to the moon.

Increase Domestic Oil Supply

The U.S. has given little and taken much. While the nation consumes 25% of the world's oil, we contribute only 2% to global oil reserves. Meanwhile OPEC controls 65% of all the oil in the world.¹⁸ According to the U.S. Department of Interior there are between 9 and 16 billion barrels of untapped oil reserves in the Arctic National Wildlife Refuge (ANWR) and between 66 and 115 billion barrels of recoverable oil on our Outer Continental Shelf (OCS). Bearing in mind that we consume approximately 7 billion barrels a year, the combined ANWR and OCS reserves equate to between 11 and 18 **years** of domestic oil use (at current consumption rates). Tapping into these domestic petroleum reserves would have the twofold effect of reducing U.S. dependence on oil imports and suppressing oil prices by adding to the overall global supply.

Both of these vast resources have been inaccessible for the last 27 years because of safety and environmental concerns.¹⁹ These concerns have become highly

political and lifting the moratoriums on drilling is now an undeniably hot-button topic for environmentalists and legislators. But emotive stances too often fail to acknowledge that oil extraction methods have progressed much in those 27 years. New drilling methods and equipment have enabled far safer and more efficient access to deeper reserves within a much smaller footprint. In ANWR's 20 million acre refuge alone, the aggregate oil field footprint would be less than 2,000 acres (about a quarter the size of Dulles airport).²⁰ Enhanced and environmentally responsible extracting techniques coupled with vigilant oversight can now facilitate American access to these vital resources without risk to the environment. Tapping into them can also become sufficiently palatable if it is known to be a preliminary step within a longer-term campaign to eliminate oil-based energy dependencies.

Of equal or greater import is the fact that every bit of the oil in ANWR and on the OCS is irrefutably under U.S. control. We do not have to compete or bargain for it, nor does the U.S. have to rely on anyone other than American private industry to access it. A new strategic energy campaign must include an executive authority lifting of the moratorium on drilling and provision of proper oversight to let American oil companies meet the nation's consumption needs. To continue to deny American access to American resources while suffering under the onerous burden of growing foreign oil dependence seems unjustifiable.

Reduce Oil Consumption

The primary goal of any effective energy policy must be to reduce overall usage of oil. The 30 year trend of increased consumption is not sustainable, and reversing that vector is paramount. Legislating energy conservation has proven to have had little

success in reducing consumption. While intent upon mandating increased efficiency, the U.S. government has ignored the one truly effective point of leverage within its reach; consumer demand. Getting serious about reducing the consumption of oil means Americans must figure out a way to suppress their demand for it.

The transportation sector is by far the largest user, accounting for 70% of the all the oil Americans consume.²¹ This sector is a massive energy consuming system that underpins virtually everything done in this country. California's transportation sector alone is on a global scale, consuming more gasoline than any foreign country; its yearly 20 billion gallon usage surpasses China's, the world's second largest consumer after the U.S.²² Any serious strategy aimed at reducing American demand for oil needs to first target the nation's transportation sector.

One assured method for incentivizing the avoidance of any product is by taxing it. Although taxes are generally considered as revenue raising tools, they can work just as well at suppressing demand for the taxed product. Indeed, studies suggest that beyond a certain point increased taxation reduces revenue as consumers change their behavior in response to higher tax rates and look for less expensive alternatives.²³ Raising the tax on fuel would make it more expensive, driving consumers away from unhindered consumption and toward more responsible efficiency.

Economists have often considered fuel as relatively "price inelastic", meaning that it is so fundamentally necessary that it must be purchased regardless of its expense.²⁴ Demand for fuel is supposed to drop very little as the price increases. However, common sense as well as recent history suggest otherwise. There exists a price point at which the driving public will alter its behavior and reduce its fuel

consumption. The summer of 2008 provided an excellent example of this as gas prices rose rapidly, topping \$4.00 a gallon. U.S. fuel demand began to drop, mass transit ridership hit a 50 year high and the nation saw an overall 4% decrease in driving.²⁵ In response to what was considered to be an exorbitant price, Americans began to change behavior, going to greater lengths to conserve and minimize fuel usage.

It must also be stated that, even at those record high fuel prices, the U.S. consumer was still getting a bargain, paying less for fuel than almost any other non-OPEC nation. Out of 155 countries surveyed, the U.S. ranked 108th in gasoline pricing.²⁶ In contrast, most European nations pay somewhere between \$7.50 and \$9.00 per gallon.²⁷ Since gasoline costs roughly the same to produce no matter where it is refined, the main discriminator in these price disparities is government policy. European nations tax gasoline heavily, with taxes making up as much as 75 percent of the cost of a gallon. Although revenue is a goal, this heavy taxation also creates an enormous suppressive effect on demand.²⁸ According to figures from the Energy Information Administration, oil usage in the United Kingdom has remained flat since 1980, while in France it has dropped 17%. Meanwhile, under a comparatively small federal tax of 18.5 cents per gallon, U.S. oil use rose by 21% over the same period.²⁹ It is apparent that taxation can make a significant difference in suppressing demand. As emotive and politically charged as the topic is, the fact remains that Americans in real terms have a lot of taxable 'room' to exploit.

Many Americans advocate a fuel tax as a means of suppressing demand. Charles Krauthammer and Thomas Friedman, both award-winning columnists and journalists, make excellent arguments for a robust fuel tax. Mr. Krauthammer calls it "the

simplest way to induce conservation” as “people alter their buying habits”.³⁰ He also references the watershed price point in the summer of 2008: “At \$3 a gallon, Americans just grin and bear it,...and, while complaining profusely, keep driving like crazy. At \$4 a gallon, it is a world transformed. Americans become rational creatures.” He describes the ensuing “swift and wholesale flight from gas guzzlers” that sparked the beginning of a “spontaneous and overnight shift in fleet composition” toward more fuel efficient vehicles. The simplicity of his argument is inescapable: “No regulator, no fuel efficiency standards, no presidential exhortations, and no grand experiments. Raise the price, and people change their habits. It is the essence of capitalism.”³¹

Mr. Friedman ties our energy dependence and consumption to the current long war, stating: “In the wake of 9/11, some of us pleaded for a “patriot tax” on gasoline of \$1 or more per gallon to diminish the transfers of wealth we were making to the very countries who were indirectly financing the ideologies of intolerance that were killing Americans”. Friedman supports the argument of N. Gregory Mankiw, a Harvard economist and former Bush advisor, that: “as a higher gas tax discouraged oil consumption,...the price of oil would fall in world markets. As a result, the price of gas to (U.S.) consumers would rise by less than the increase in the tax. Some of the tax would in effect be paid by Saudi Arabia and Venezuela”.³² Mr. Friedman feels America wasted a perfect opportunity to unite the nation on the issue of a gas tax as the tool to free itself from foreign oil and to weaken its adversaries.

Shape the Oil Market

The global oil market is a competitive playing field filled with consumers seeking to minimize costs, suppliers trying to maximize profits, and speculators who are betting

on future prices. It is a high stakes game with enormous consequences for the players, especially given that the commodity in play is of vital national interest. The U.S. should be doing everything in its power to be a shrewd competitor in this arena. Yet so far the U.S. has been unwilling or unable to shape this game to its advantage. Our problem seems to be one of perception. Americans view the market as a given, much like an economic force of nature. We simply consume, submissively accepting fluctuating prices and rampant speculation as inevitable consequences of the natural ebb and flow of supply and demand in a free market. Americans feel they can do little to influence the market beyond pleading for more production from suppliers. When oil prices rise unchecked, no action is taken to counter the trend. Consequently, the U.S. yields the initiative to others who work diligently to manipulate the arena to their advantage.

There is an important strategic concept often overlooked, however. As the world's largest oil consumer, it is **America's** demand more than any other factor that drives oil prices. The U.S. actually possesses the means to wield considerable power in this domain if it so chooses. But American's do not appear to realize this. The nation's purchasing power and its ability to create wealth is still unmatched. Simply by exercising choice and altering demand, the U.S. can generate an enormous consumer vector away from oil consumption, fundamentally altering the global oil market and setting course toward an oil independent future.

As devastating as the current fiscal crisis has been to the U.S. economy, it has provided a serendipitous opportunity to see its effect on the global oil market. As the recession took hold, U.S. demand for fuel plummeted. The nation entered a period of the "steepest decline in motor vehicle fuel consumption since 1979-80" and it was "high

gasoline prices...coupled with weakening economic conditions...that reduced demand significantly".³³ Consequentially and almost immediately, the bottom dropped out of oil prices, tumbling from a record high of \$147 a barrel in July of 2008, to the price (at time of writing) of \$39 a barrel. With crystal clarity, this revealed a strategic phenomenon magnificent in both its enormity and simplicity. The U.S., as the world's largest oil user, can **control** the global market simply by adjusting demand.

Supply and demand are not the only forces at play in determining the price of oil. Speculation in the oil futures market has recently gained increased notice as the driving force in the price of oil. Since pricing in the futures market is transparent and more easily measured than the countless private oil deals, it becomes the widely accepted benchmark, serving as the price discovery mechanism for all the oil the world consumes.³⁴ Unregulated and possibly malevolent speculation in oil futures drove prices artificially high in the summer of 2008, contributing to the economic crisis we are now enduring.

Speculation is the practice of buying oil at a pre-determined price and selling it at a future date, anticipating that, with rising prices, a profit will be made when the oil is delivered.³⁵ This is not a purchase to use the oil, only to hold it. The problem is that the actions of the speculators themselves cause an increase in oil prices. By entering the market with large sums of cash, they themselves drive up demand, even though they do not actually use the commodity. As far as the market is concerned, the demand for a barrel of oil purchased in a futures contract is just as real as the demand resulting from a refiner's purchase. Speculation also forces oil users to buy when they would otherwise not, purchasing extra oil if the futures price is higher.³⁶ This behavior creates a self

sustaining upward spiral of demand and price that artificially drives them both up, essentially overwhelming normal supply and demand driven pricing.

Speculation factors into the supply side of the equation as well. An owner of oil will keep his oil in the ground if its price is expected to rise faster than the interest rate that could be earned on the money obtained from selling the oil. If the price of oil is not expected to rise as fast as the interest rate, the owners will extract more and invest the proceeds.³⁷ This is basic supply-side economic behavior designed to maximize profits.

Most troubling is the suspicion that the suppliers themselves are manipulating oil futures. Since the futures market serves as the price determinant for oil, one dollar in the futures market carries the leveraged weight of \$300 in the physical oil market. In a Time magazine article titled 'Are Oil Prices Rigged?', two Stanford students explain how it would only take about \$9 billion to completely control the oil futures market. Although \$9 billion is an enormous amount of money, this amount is well within the means of several oil suppliers who are “bigger than the market itself and could clearly handle the risks, even taking delivery of the oil if they needed to.” Under current regulations, these suppliers need not be concerned with being discovered either. The hedge fund is an anonymous investment vehicle by which they can risk other investor’s money and remain concealed. The oil suppliers’ ties to the oil market itself combined with their enormous wealth give them a unique opportunity to corner the market.³⁸

American demand for oil, coupled with its feeble posture in the global market, has resulted in the largest transfer of wealth in history. According to a 2005 report sponsored by the Department of Energy, the U.S. lost **\$8 trillion dollars** in wealth between 1970 and 2005 buying over-priced oil. This was the extra that was lost as a

consequence of supplier manipulation of the market. The report notes it as “lost economic potential due to oil prices elevated above competitive market levels, and disruption costs caused by sudden and large oil price movements.”³⁹ Simply put, the nation paid \$8 trillion more dollars for the oil than it should have.

In many cases this transfer of wealth goes to nations and non-state actors who wish the U.S. no good. When the price per barrel was \$147, an empowered Iran was less vulnerable to sanctions, Venezuela became increasingly strident in its defiance of the U.S., and a resurgent Russia (having paid its debts, and having accumulated the world’s third largest gold and hard currency reserves), began flexing its military might once again.⁴⁰ These were only the overt actions of nation-states. Much of the cash filling terrorists' coffers has originated from oil-rich states. In July 2005, undersecretary of the Treasury Stuart Levey testifying before the Senate noted that: “wealthy Saudi financiers and charities have funded terrorist organizations and causes that support terrorism and the ideology that fuels the terrorists' agenda...we believe that Saudi donors may still be a significant source of terrorist financing, including for the insurgency in Iraq.”⁴¹

America’s vulnerability is not lost on radical Islamic terrorists either. Dr. Gal Luft of the Institute for the Analysis of Global Security noted in 2006:

(the terrorists) have identified the world energy system as the Achilles' heel of the West and have made attacking it a central part of their plan... Striking oil, which jihadists call "the provision line and the feeding to the artery of the life of the crusader's nation," is relatively easy and effective. Terrorists no longer need to come to the United States to wreak havoc here. They can hit our energy supply near the source, where they enjoy strong support on the ground.⁴²

U.S. energy policy has created circumstances where America’s enemies and competitors have been able to capitalize on American consumer demand for oil as a strategic weakness, and through this transfer financial power to their own banks. It is

important to understand however, that this adversarial strategy comes with risk. Iran, Venezuela, and Russia have each indicated a need for oil prices to remain set above \$90 a barrel in order to satisfy their expanding budgets. A well structured U.S. energy policy could exploit this exposure. Knowing the budgetary requirements of a competitor reveals their weakness and presents a providential opportunity to capitalize on it. As the world's largest oil consumer, America's demand drives the market and underwrites the budgets of these nations. By manipulating demand, the U.S. possesses the ability to drive down the price of oil and specifically **target** a price per barrel that falls short of the needs of these threat nations. It is axiomatic in strategy that it is much better to preemptively weaken an adversary's ability to threaten than be forced to confront his strength in the future.

Strategic communication is the key to success in shaping the global oil market. Both friend and foe alike must receive a clear message of U.S. determination to wield its vast economic power to drive oil prices down. The American people must be convinced that this is in the best interest of the country and the suppliers must be convinced of American ability and resolve to wrest the initiative from them.

The U.S. consumer will be loath to agree to any increased taxation, especially in these stringent financial times. However, it is exactly that repulsion that will alter consumer behavior. Some important themes should be reinforced in order to convince the U.S. consumer that this is the proper course. First, price manipulation has already significantly weakened Americans economically. Oil price shocks were partly responsible for the current fiscal crisis and the massive transfer of wealth over the years has been slowly bleeding the nation. Another theme is that Americans continue to bleed

physically for the nation's energy. American soldiers, marines, sailors, and airmen have too often been required to sacrifice in order to secure stable access to foreign energy resources. Altruistic reasons aside, the nation's energy interests must be attended to and this keeps the U.S. engaged in regions of the world where it would not otherwise be. Finally, making fuel artificially expensive stops the transfer of wealth to the nation's adversaries and keeps the money **within U.S. borders**, creating revenue that can be applied to **American** interests. Such money can be used to stimulate alternative energy technology, incentivize the purchase of fuel efficient vehicles, and even be recycled right back to the U.S. consumer in the form of lower payroll taxes.

The application of a tax increase does not have to be shocking. A delayed commencement of several months and small semi-annual increases will give all players time to prepare and adjust. Incremental tax raises can be metered in as necessary, over time, to reach the critical demand-altering price point. Indeed, the behavior changing price point will likely lower as the American consumer realizes that the tax increases will inexorably proceed until demand drops. This would be a bold new direction for the country. Secure in the knowledge that gas prices will rise slowly but steadily regardless of oil prices, the future becomes stable for everyone in the U.S. By taking this action, the government would begin to insulate the nation from whipsawing oil price fluctuations, essentially providing a clear and predictable future for its citizens. The majority of consumers would react by adjusting their consumption while it is still painless, ridding themselves of gas guzzlers and opting instead for more fuel efficient vehicles. For automakers, there would be no better incentive to design more fuel efficient vehicles than a public that would buy elsewhere if they cannot meet demand.

This would have a far greater effect on overall efficiency than any arbitrary fuel economy mandate.

The revelation of U.S. intent to control the oil arena would make a resounding impact on the global market. Oil futures would be affected as soon as speculators begin to fully comprehend the ramifications of U.S. resolve. The expectation of lower future oil prices due to decreased U.S. demand may act to drive the market down before the reduced demand even has a chance to take effect. In an ironic but fitting turnaround, the U.S. would be manipulating the same futures market that worked against it for so long, inverting the previous upward spiral of speculation and demand. Suppliers as well will be incentivized to make their oil available sooner rather than later. It would be better for them to take the near term profit before speculation drives the price down or U.S. taxes take full effect on reducing U.S. demand.

Invest in Alternative Energy

As the most powerful nation on earth the U.S has the economic, intellectual and technological resources to take the global lead in renewable energy development and production. The main inhibitor to the development and growth of this industry has been the volatility of the price of oil. It makes no fiscal sense to invest in a technology that can be easily undercut by a future drop in oil prices. Potential investors in renewable energy technologies need an assurance that the price of oil and gas (within U.S. borders) will not fall. A proactive U.S. energy policy that taxes the nation's petroleum consumption automatically stabilizes the future and creates a market niche for investors to exploit.

Similarly, automakers can finally commit fully to designing and manufacturing highly fuel efficient vehicles, secure in the knowledge that the U.S. consumer will buy

them. A good case is made that the CAFE standards of the past have actually crippled Detroit. When oil prices were relatively low, they forced U.S. automakers to produce small cars that could only be sold at a loss. The demand was simply not there. "They were essentially making unsellable cars to fulfill mandated quotas, like steel producers in socialist countries meeting five-year plan production targets with equal disregard for demand."⁴³ New CAFE standards are no less problematic. Recent emphasis has been on establishing fuel economy standards relative to vehicle size. In its April 2008 report to congress, the NHTSA proposed a new mandate requiring every model of new vehicle to have a fuel economy target based on the space it occupies on the road. This space is referred to as "footprint" and is the product of the vehicle's wheelbase and track width.⁴⁴ This could likely have an unintended and quite opposite effect on consumption. Just as in the historic SUV scenario, this could incentivize the automakers to manufacture large footprint vehicles in the effort to avoid the more restrictive standards of the smaller ones. Once again, legislation will have incentivized something other than efficiency.

The answer is simple: direct consumer demand toward efficiency and incentivize automakers with consumer demand. Government energy policy must stop trying to figure out the details and complexity of how to mandate fuel efficiency. Legislation alone will not alter the consumption habits of the consumer. It is a vain attempt to force a reverse in current within a massive river of consumer behavior. The government can employ policy that would redirect this river and enable it to propel the change we want.

American automakers should be set free from government mandates. With the assurance of high priced fuel, there will be no need to force them to design fuel efficient vehicles. It will inevitably occur as they respond to the consumer and competitively

pursue efficiency. Revenue from a fuel tax can even accelerate this by incentivizing the purchases of high efficiency vehicles. For example, a \$1,000 rebate for the purchase of a 30 mpg car, a \$3,000 rebate for a 35 mpg car, \$6,000 for a 40 mpg car, etc. The numbers can be adjusted but the idea is that the government will be rewarding what is actually needed – fuel efficiency. This would be the perfect complementary good side of a massive carrot and stick approach that discourages consumption through taxation and rewards efficiency through compensation.

Another possible positive effect of adroit application of efficiency rebates could be realized if these rebates were limited to American made vehicles. There has been much consternation of late over Detroit's troubles and the resultant impact on the economy. Whatever the design, production and fiscal shortcomings of U.S. auto manufacturers, misguided government policy (CAFE standards) is at least partly to blame for their recent misfortunes. Rather than pointing fingers at their failures, burdening them yet again with mandates or trying to plug their hemorrhaging of cash with costly bailouts, why not simply drive the U.S. consumer to the front doors of the U.S. automaker? The benefits seem obvious.

Finally, we know that global petroleum reserves are finite. Alternative energy sources such as wind and solar power are not. Eventually the world must transition to these infinitely renewable sources of power. The degree to which the U.S achieves primacy over emerging renewable energy source technologies will be a determining factor in whether or not the U.S. remains dominant and independent in the future.

Conclusion

America's future security rests on the ability to suppress our demand for petroleum. Although increasing supply and investing in renewable energy will have positive effects by themselves, they cannot compare to the enormous added impact of simultaneously reducing the consumption of oil. Manipulating demand through taxation will enable America to wield its economic dimension of national power, exerting control over the market and targeting a price per barrel that undercuts our adversaries' needs. It has the added benefit of keeping wealth within U.S. borders and out of the coffers of adversaries while giving the nation a means to incentivize efficiency and renewable technology.

The synergistic effect of acting on all fronts will point the U.S. in a new and promising direction. Americans can remove the shackles of foreign oil dependency and once again become a self-reliant nation, emerging as the world leader in renewable energy technology in the process. It is time to exert American consumer power and secure our energy requirements. Our future as a nation depends on it. We must win the Energy Campaign.

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