A DECLARATION OF ENERGY INDEPENDENCE

How Freedom from Foreign Oil Can Improve National Security, Our Economy, and the Environment

JAY HAKES

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Introduction

Why Energy Independence Matters More than Iraq

The roots of many of our great national predicaments trace back to energy. American troops leave their families to fight in the Persian Gulf, not incidentally the region of the world with the greatest known reserves of oil. A falling U.S. dollar faces the risk of oil-exporting countries switching their investments from dollars to euros. A United Nations panel of scientists reports the planet is warming, due mainly to the combustion of fossil fuels.

On a more personal level, motorists passing gasoline stations are jolted by large signs listing prices going well beyond what could even be imagined just a few years ago. Soaring energy prices in recent years have weakened the overall U.S. economy and could wreck greater economic havoc in the future.

When serious energy threats loom, political candidates and officeholders have for decades advocated American energy independence to reduce or eliminate reliance on foreign oil. To add rhetorical flourish, they have gone on to demand an effort to develop alternative fuels with an intensity equal to the Manhattan Project (which beat the Germans to the development of the atomic bomb), or the Apollo project (which beat the Russians to land a man on the moon).

President George W. Bush added a new twist to the energy oratory in 2006, when he complained that America's addiction to oil was driving up gasoline prices and threatening national security.

During the presidential primaries of 2008, the four major candidates who survived Super Tuesday, regardless of party, all called for American energy independence. This is clearly an idea with great popular appeal.

What should we make of all this talk? Is there any substance behind the verbiage? Is energy independence a massive project we really want to take on? Is it even possible? Do we need to rethink what we mean by energy independence?

Major Risks to National Security, the Economy, and the Environment

This book argues that American dependence on foreign oil at current levels (60 percent of total consumption) constitutes a grave security and economic risk with greater consequences than the war in Iraq. As much as laissez-faire economists want to deny the obvious, importing oil from the Persian Gulf and other unstable regions has much bigger strategic impacts than getting, for instance, televisions or running shoes from Asia.

For starters, the harmful effects of an interruption in the supply of petroleum (a word interchangeable with oil) are much greater. Petroleum products play many vital roles in moving people and things around. The Army and Air Force can conduct missions only when fueled by oil. (The Navy makes extensive use of nuclear power.) Trucks that carry goods to Wal–Mart and shoppers headed to their stores also rely on oil. So do critical services ranging from the delivery of food to emergency medical care provided by speeding ambulances. People in the Northeast need heating oil to get through frigid winters. In short, the sudden absence of oil would shut down any modern economy and render its armed forces powerless.

The risks of an interruption are not just hypothetical. A five-month Arab oil embargo in 1973–1974 crippled the American economy and led to long lines at service stations. In some states, half the stations ran out of fuel. Just five years later, the Iranian Revolution led to another massive loss of oil, the return of gasoline lines, and raging inflation. Then, in 1980, war between Iraq and Iran suddenly slashed world oil supplies by five million barrels of oil a day (8 percent). World oil supplies got clobbered again after Iraq invaded Kuwait in 1990.

Even if oil now represents a smaller part of the total economy than in the 1970s, and the complete loss of oil from the world's largest exporter, Saudi Arabia, is regarded as unlikely, the United States cannot remain oblivious to the possibility that some combination of factors could produce a shortage greater than ever before. Such scenarios for massive interruptions are no more improbable than the great interruptions of the past, as viewed by various White Houses *just hours before they actually occurred*. Even when we have enough oil, policymakers have to deal with the fact that oil exporters can exert pressure on America just by threatening to block supplies.

Do we also have to worry that the United States will have to commit military forces to protect its access to foreign oil? The historical record reveals that this has been U.S. policy for decades.

There has been a tendency within polite circles in Washington to treat dependence on Persian Gulf oil and the costly—in terms of lives and money—U.S. military presence in Iraq as two separate issues. In 2007, Alan Greenspan—top economic advisor to presidents Nixon and Ford and head of the Federal Reserve Board during the presidencies of Reagan, Clinton, and the two Bushes—performed a great public service by confirming the presence of the big elephant in the room. "I am saddened that it is politically inconvenient to acknowledge what everyone knows," he wrote in his memoir *The Age of Turbulence,* "the Iraq war is largely about oil."[1] The world's reliance on oil from the Persian Gulf can have a high price indeed.

Apart from abrupt interruptions in global oil deliveries and the need for U.S. armed forces to protect American access, there are other, more subtle forces at work that undermine U.S. independence. The twelve nations of the Organization of the Petroleum Exporting Countries (OPEC) maintain a policy of keeping oil supplies below what is needed for the growing world market, a strategy of making more money by producing less oil.[2] In recent years, they have succeeded beyond their fondest hopes. The world has seen a persistent seller's market in which oil prices remained well above the cost to bring on new supplies. Part of the success of oil exporters rests on the persistent growth in American demand for gasoline in the face of prices that have more than tripled. In the current tight oil market, any actual or potential interruption of supplies from wars in Iraq or Nigeria is quickly magnified, with oil traders rapidly bidding up prices.

The combination of record imports and record prices has created a trade deficit in energy greater than the much-ballyhooed one with China, and has poured vast sums of money into the oil-exporting countries. The amount of money involved is stunning: the United States is currently spending a billion dollars a day on imported fuel.

The United States cannot ignore the consequences of where the money to pay for its oil is going. The growing political clout of countries like Iran, Russia, and Venezuela rests on the explosion of world oil prices in recent years. If they take actions we disapprove of or money going to the Persian Gulf ends up in the hands of terrorists, we, as the world's greatest consumer of oil, pay (at least indirectly) for it.

The 9/11 Commission found that the government of Saudi Arabia tried to cut off funds going directly to Osama bin Laden and his al Qaeda organization and that he did not have enough of a personal fortune or use money from trade in illegal drugs to fund his terrorist activities. His attacks on the United States were financed with money raised through charities and religious groups in Saudi Arabia and, to a lesser extent, neighboring countries.[3] In the major countries supplying funds for al Qaeda, the economies were based on oil exports. Without money derived ultimately from oil, the terrorists could not have struck.

Some take comfort in the amount of imports that come from neighboring Canada and Mexico. Indeed, in recent years they have ranked number one and two, respectively, as oil suppliers to the United States. Still, the oil we get from them falls well below what we get from OPEC. More importantly, in a global oil market, oil prices around the world tend to rise and fall in tandem, and shipments of oil to one port can be quickly diverted to another. Our consumption can drive up the prices Persian Gulf nations get for their oil, whether their customers are in the Western or Eastern hemispheres.

American energy independence has often been equated with reducing reliance on foreign oil. Given our huge appetite for imports and the instability of the region with the world's greatest known reserves, this emphasis is justified. But it is not quite that simple.

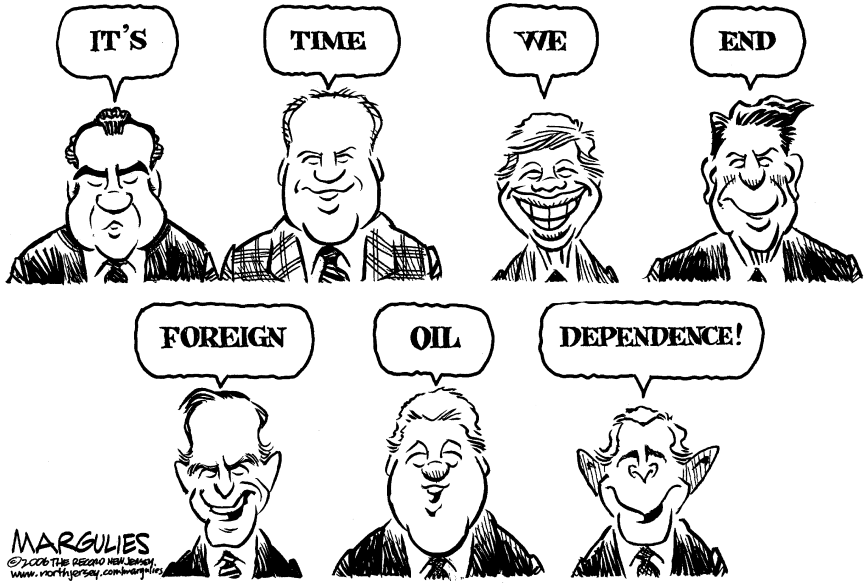
Getting oil imports to zero is not the critical factor in achieving energy independence. The United States can certainly import some oil (but not at the current level of 60 percent) and still manage the risk of those imports. In addition, even if the United States imported no oil, it would have to

recognize the possibility that in the event of a major interruption, foreign consumers could buy American oil and create a shortage here.

We must also consider the growing recognition in recent years that the combustion of fossil fuels is the major factor leading to the warming of the planet, along with attendant effects like rising ocean levels, melting glaciers, and expanding areas of drought and dangerous fires. If we cannot end our addiction to fossil fuels (at least as they are currently used), we will confront a lack of independence in addressing a deterioration in our quality of life that will almost certainly accelerate for our children and grandchildren. The changing locations of arable land around the world already produce armed conflicts in which the United States is asked to intervene. In some areas, warming may improve the quality of life, but for the most part climate change creates additional challenges for American military and economic security and the potential for environmental disaster.

The convergence of so many predicaments tied to energy seems to make the task of dealing with them appear daunting indeed. Some laissez-faire economists question whether, in the age when economic growth benefits from international trade, making the United States energy independent is a worthy goal. They have also suggested that the costs of slowing climate change are not justified. Others consider reducing dependence on foreign energy or the emissions of greenhouse gases a good idea, but probably unrealistic given the huge momentum pushing trend lines in the other direction. Even at a time of three dollars a gallon for gasoline, American foreign policy driven by a need for imported oil, and growing international pressure to do something about global warming, it is difficult to convince some that concerted action could actually reverse the current adverse trends in energy.

Part of the prevailing skepticism about becoming less reliant on foreign oil comes from years of hearing speeches about energy independence with no (or few) positive results. In November of 1973, just weeks after Arab oil producers imposed an embargo on the United States, President Richard Nixon went on prime time national television to call for the country to become self-sufficient in energy by 1980, an effort he called *Project Independence.* He also invoked the Manhattan and Apollo projects in his call to action. At the time of this first presidential plea for energy independence, oil imports had risen to a then-astounding 37 percent of



Many presidents have called for energy independence.

consumption. With today's figure at 60 percent, no wonder people are skeptical that we will ever see any progress.

When the 9/11 attacks hit New York City and the Pentagon, it provided, in the words of *New York Times* columnist Tom Friedman, a "crucible moment" to unite the country behind new energy policies that might make us less dependent on Persian Gulf oil, less likely to fund the terrorists who attacked, and more likely to leave a better future for our children.[4] Again, political leaders spoke out in strong terms after 9/11, but were slow to offer substantive solutions to the energy problems connected to the attack.

We keep hearing as well about the amazing new technologies that are going to rescue us from our energy problems. Yet the most important breakthroughs in nuclear power came when Harry Truman was president and (later Admiral) Hyman Rickover led the effort to develop light water reactors for the nuclear navy. Nixon was invited during his first term to a demonstration of hydrogen fuel cells, which have been touted ever since as the big breakthrough just around the corner. The United States assumed world leadership in solar cell technology and passed generous subsidies for ethanol and other forms of renewable energy under Jimmy Carter, yet

the share of renewables in the energy mix is no greater today than it was under Carter. In 1993, the Clinton administration joined with the U.S. automobile industry in a much-publicized effort to "build a car with up to 80 miles per gallon at the level of performance, utility and cost of ownership that today's consumers demand," after which the fuel efficiency of the national fleet declined. Should we believe more recent hype about the *new* emerging technologies?

The great theologian Reinhold Niebuhr once prayed: "God, give us grace to accept with serenity the things that cannot be changed, courage to change the things that can be changed, and the wisdom to distinguish one from the other." It would be hard to blame people who concluded that, given the recent record, our current dependence on foreign oil and global warming are things we should "accept with serenity."

Finding Solutions

This book argues that rising dependence on foreign oil and threats from climate changes are things we should have the courage to change. My goal is to show both how we got into this mess *and* how we can get out of it. Now is the ideal time to take a fresh look at energy policy and the solutions that are available.

Traditionally, the costs of various solutions to our energy problems have been compared to the benefits for the economy, the environment, *or* national security. We should start comparing the costs against the benefits for the economy, the environment, *and* national security. We also need to calculate the impacts on our children and grandchildren of policies (good or bad) adopted today. If we accurately cumulate the advantages of moving boldly on energy, we can better envisage reasons why action is better than passivity. The substance of our recent tepid energy policies can finally begin to match the bold political rhetoric.

My favorite example of a policy ripe for immediate adoption requires that automobiles and trucks meet steadily escalating fuel-efficiency standards. Dramatic increases in the efficiency of vehicles allows the United States to greatly reduce its use of oil. This, in turn, cuts reliance on foreign supplies. It also chops the U.S. balance-of-payments deficit. Less money goes to regimes like Iran. The environment will greatly benefit. It will likely lower world oil prices. At some point, a combination of measures to reduce oil imports reduces the need for an American military presence in the Middle East. If all these benefits are added up, the cost of building

the improved vehicles appears rather small. (Plus, drivers save most or all of the costs of more expensive vehicles with lower fuel costs.)

The United States is only part of the world transportation system, but a very large part. We consume a quarter of the world's oil. Because of our economic dominance, we have the ability to greatly affect the global market in many ways, for good or ill. If we greatly improve the fuel economy of our cars and trucks, there will likely be beneficial spillover effects elsewhere in the world.

In all, I identify seven solutions that can help reduce dependence on foreign oil, strengthen the economy, and reduce emissions of greenhouse gases. Several of these recommendations deal with all three problems at the same time. I call these solutions *threefers*.

It would be harder to believe we can conquer our energy challenges if we had not done so once before. As surprising as it may seem, the United States cut its oil imports in half from 1977 to 1982—a sharp reversal of the growing reliance on foreign fuel up to that time. This forgotten victory soon brought an end to OPEC's domination of the world oil market, a condition it was not able to overcome until 1999. Although imports never got to zero, America was able to reclaim for a time its energy independence. Some measures employed then are available today; others are not. The major point is that when the country is determined to do so, its actions can match its rhetoric.

We can also take great encouragement from the passage of the Energy Independence and Security Act of 2007. This bill launches a new national effort to dramatically increase auto efficiency and contains many other measures that have real teeth. The adoption of tough energy measures for the first time since 1980 signals a major shift in the political landscape in Washington. It also suggests there will be additional opportunities to better align national energy policy with national security, economic, and environmental goals with even bolder action.

Readers may reasonably ask why they should accept the diagnosis of current energy problems and the solutions to them contained in this book. From 1993 to 2000, I served as the administrator of the Energy Information Administration (EIA)—the government's nonpartisan agency for the collection, dissemination, and analysis of energy data. Although EIA did not endorse specific policies, it frequently responded to requests from Congress and the administration to analyze various options proposed by others. Using

economic models it had developed, EIA could chart the future impacts of potential changes in federal energy legislation. The lesson for me, as I oversaw and presented these studies, was that much is gained when assumptions are transparent and political ideology is supplanted by careful analysis and accurate data. We were able to cut through a lot of the partisan jockeying over trends in world oil markets, the reliability of the electric grid, and the costs of reducing carbon emissions.

Now that I am free to suggest energy policies that I think will benefit the nation, I try to look at the best studies available, examine the many interactions within the world of energy, and make recommendations based on the evidence.

The best-attended press conferences at EIA came when I was presenting the agency's projections of future trends. Such exercises are valuable, but given the limits of forecasting, it is important not to place all one's analytic eggs in a single basket.

As a result, when I left EIA, I determined to take a closer look at the history of energy policy as a possible lens to the future. I spent considerable time exploring the White House archives of Richard Nixon, Gerald Ford, and Jimmy Carter and utilized, as well, information from several other presidential libraries, much of it classified until recent years. I also pored through the record of the oil disruptions of the 1970s at the American Automobile Association and the archives of former energy czar William Simon at Lafayette University. Although this book deals with today's problems, exploring their roots has helped identify the arguments that have stood the test of time and those that have not.

The effort to learn more about the future by considering the historical context included a careful review of the data series maintained by EIA. This approach led to some reinterpretation of trends in oil imports, nuclear power, and other major aspects of the energy mix. Many of these trends have not been given the attention they deserve.

Looking at the world of energy from many perspectives has greatly assisted the effort in this book to offer cost-effective solutions allowing the nation to declare its energy independence by reducing reliance on foreign oil and cutting emissions of greenhouse gases to a level that provides a good start toward slowing global warming.

Having a good grasp of this history has helped me assess the likely impacts of the Energy Independence and Security Act. This book will provide an early assessment of this 800-page-plus bill. Though many focus on what was left out, there was sufficient substance remaining to rank this

legislation favorably alongside the great energy packages of the 1970s that collectively helped us temporarily win back our energy independence. This new burst of congressional action contributes to my belief that we can lick the problem of energy dependence, if we keep at it.

To put both my solutions for energy independence and recent developments in energy policy in context, we must begin by understanding how we lost the energy independence we enjoyed through the 1960s.

PART ONE

The Problem of America's Energy Dependence

Chapter 1

America's Plunge into Reliance on Foreign Oil

For about a century, the United States dominated the expanding world oil market, able to dictate terms to other nations great and small. Then in the early 1970s, the country quickly plunged into dependence on imported oil. Private lives were suddenly disrupted by gasoline lines, and public officials struggled to convince the electorate they had effective solutions to America's new energy woes. The story of how this dramatic reversal of fortune happened provides a necessary foundation for figuring out how to reduce our current dependence on imported oil.

The Specter of Oil Imports

In the late 1940s, America reached a major energy milestone. After nine decades of more oil going out (mainly as gasoline and other products) than coming in, the country became a net importer. By 1950, net imports were running about half a million barrels a day, or about 8 percent of U.S. consumption. The transition from oil-exporting nation to oil-importing nation was not unanticipated.[1]

Before the end of World War II, the wise men of government and industry began to ponder some emerging new realities. It appeared America could not sustain its prodigious increases in oil production much longer. Moreover, oil from the Middle East, while still minor, would clearly

play a much larger role after the war. Reserves there went well beyond any discoveries the world had ever seen. Moreover, with sparse populations and low levels of industrialization, these countries had little need for the oil themselves, making their growing levels of supplies available to Europe and eventually the United States. The warnings of the period resonate even many decades later.

Sumner Pike, a member of the Securities and Exchange Commission (SEC) with experience in the oil business, raised alarms in 1942 about the threat of future reliance on imported oil. He cautioned, "I visualize with a good deal of horror our sudden necessitous entrance in some not far distant day into the foreign markets, and boy at that time will we be held up!" He recommended against restricting imports from the Middle East, advising, "We might just as well get started in those markets as early as possible and while we can do those countries some good, and effect the transition from an exporting to an importing nation gradually in the meantime not trying to find all our domestic oil at once."[2]

Two years later, Eugene Ayres, head of research and development for Gulf Oil, urged that national security be given priority over low prices. He wrote Franklin Roosevelt's energy czar Harold Ickes that cheap imports would block the development of alternatives to oil. He proposed a tax on all liquid fuels other than approved substitutes to create an incentive for private industry to contribute to national security.[3] Despite their differences on tactics, Pike and Ayres agreed on one thing—the United States had to do something to ward off future dependency on foreign oil.

Although the amounts of oil imported were initially quite modest, independent producers soon complained about the "increasing flood of oil from foreign lands" and the adverse effects on their businesses. Both domestic production and imports continued to grow, however, due in large part to a growing national appetite for gasoline.

A transportation boom required new roads to handle the traffic. In 1956, President Dwight Eisenhower launched the 40,000-mile interstate highway system (eventually expanded to over 47,000 miles), intended initially to facilitate the easy movement of military equipment during wartime. To pay for construction, the two-cents-a-gallon federal tax on gasoline was upped to four cents. One oil company executive complained gasoline was being taxed off the market, because the average

motorist could not afford the rising tax bills. The new levy had the opposite effect. It financed a road system that encouraged the expansion of commercial trucking, family vacations, daily commutes, and, hence, the demand for diesel fuel and gasoline.

Building a Wall

Political muscle opposing foreign oil in the late 1950s came from two influential Democrats from Texas—House Speaker Sam Rayburn and Senate Majority Leader Lyndon Johnson, both active advocates for petroleum interests in their state. Congressional leaders demanded protection for American producers and gave the president authority to block imports when in the interests of national security.

Despite his worries about adopting protectionist policies, in March of 1959 Eisenhower announced binding quotas on foreign petroleum, set at a stringent 12.2 percent of U.S. production. The caps were more generous for oil unloaded at West Coast ports and from overland sources (i.e., Canada). The rules made it particularly difficult for imports delivered to ports on the East Coast, in effect closing the door on increased deliveries from the Middle East. The quotas, though rarely remembered even by careful students of American energy policy, would prove far from temporary and would have significant impacts on later vulnerability to foreign pressure.

On the whole, quotas on foreign petroleum delivered many of the desired results through the 1960s. Domestic production continued to rise, and U.S. consumers enjoyed stable prices at the pump. Imports were constrained and came mainly from the Western hemisphere, not from the more distant and politically volatile Middle East. With added revenues due to reduced foreign competition and generous relief from federal taxes, American oil companies maintained excess productive capacity, which gave the United States great leverage in world affairs in event of a cutoff in oil supplies. Moreover, with Americans working harder to find oil than the rest of the world, they stayed on the cutting edge of oil technology. Even though importing some oil, the United States remained the world's major swing producer. It imported oil, but because of its surge capacity, was not yet dependent on that oil.

America's excess capacity demonstrated its strategic value during the 1967 Six Day War between Israel and its Arab neighbors. Strikes, sabotage, and mob disturbances shut down production entirely in some Arab countries, the result of agitation by Egypt's populist leader Gamal Abdel Nasser. Exports from the Persian Gulf were briefly reduced by 60 percent, a massive loss of about six million barrels a day to the world market. After the rebellions were quelled, the loss of oil ran about 1.5 million barrels a day—an amount still significant but more manageable.

Problems from the embargo were resolved in about a month by drawing on commercial stocks, cooperation between government and industry redirecting supplies, and surge production from the United States, Venezuela, and Iran. On the whole, the attempt to create an oil crisis as a weapon against supporters of Israel had fizzled.

As Pike warned in the 1940s, import restrictions proved to be a short-term strategy that created even bigger problems later on. They forced Americans to pay more for fuel than the prevailing world price, putting their industries at a disadvantage against foreign competitors with lower costs. The United States was also drawing down its easy-to-develop resources faster than would have been the case with free trade in oil.

Potential foreign suppliers, moreover, came to see the international oil market as more a matter of politics than economics. Import restrictions by the world's largest oil market during a period of stagnant world demand led to a sharp drop in the price Middle Eastern nations could get for their oil. As an unintended consequence of this chain of events, Saudi Arabia, Iran, Iraq, Kuwait, and Venezuela met in Baghdad to form a new alliance called the Organization of the Petroleum Exporting Countries (OPEC). Members at its founding in September of 1960 sought leverage against consuming nations blocking their access to customers and against international oil companies unilaterally reducing prices. It appeared initially that OPEC would have little impact on U.S. markets, but during the 1960s it did attract additional members—Qatar, Libya, Indonesia, the United Arab Emirates, and Algeria.

In 1968, OPEC passed a little-noticed resolution calling for government sovereignty over all its oil resources. This new policy eventually shifted control of the industry—previously exercised by the major international oil companies—into the hands of the political leaders of the OPEC countries, and made dealing with future crises more difficult.

New Challenges

The year 1970 marked another historic turning point in the history of American energy, clearer in hindsight than at the time. United States oil production, after more than a century of steady increases, reached its peak in April. Henceforth, U.S. production would trend down rather than up. Both symbolically and substantively, this reversal, during Richard Nixon's first term as president, heralded the end of the age of American oil dominance.

The decline in production occurred during a time of explosive demand growth, the greatest ever before or since. During the 1960s, U.S. energy consumption increased a whopping 51 percent, compared to 36 percent during the previous decade. More fuel was needed for new, larger cars with features like air conditioning. Automobiles logged more miles as the increasing popularity of suburban living required longer commutes. Moreover, the fuel efficiency of passenger cars in 1970 dropped to 13.5 miles per gallon.

Americans also displayed a growing appetite for electricity, a rising share of which was generated from oil. More energy was needed for larger houses and offices. In many sections of the country, moreover, air conditioning transformed itself from a convenience to a necessity. In 1960, only 12 percent of U.S. households had installed some form of air conditioning. Fifteen years later, about half had done so.

Rising environmental concerns—reflected first in local regulations and then in the Clean Air Act of 1970—forced a switch from coal to other fuels until new technologies to clean up coal emissions could be developed. Industrial use of coal, for instance, dropped 11 percent from 1966 to 1970, due largely to concerns about air quality. As a result, oil had to help meet both the rising demand for fossil fuels in general and the gap from reduced use of coal.

Declining U.S. oil production, exploding demand, import caps, and new requirements for clean air were creating an almost perfect storm. Midlevel staffers at the Nixon White House worried the prevailing energy trends might create fuel shortages.

One obvious way to alleviate the prospective energy crunch would have been allowing more foreign oil—a course advocated by an oil import control task force established in 1969 by Nixon and chaired by Labor Secretary George Shultz. Even though the quotas had already been tweaked to allow

more Canadian and Venezuelan oil, the Shultz report, released in early 1970, argued that mandatory quotas forced Americans to pay $5 billion a year more than necessary by blocking access to cheap foreign supplies. The report is worth a close look, because it included the most extensive discussion ever by the U.S. government about the issues affecting U.S. reliance on foreign oil—the same issues that continue to plague us today.

The task force minimized the threat of an oil interruption from turmoil in the Arab states, calculating "to have a problem, one must postulate something approaching a total denial to all markets of all or most Arab oil"—a situation it viewed as highly unlikely.[4] The report concluded the United States could rely during an energy disruption on its own excess capacity for surge production of almost 2 million barrels a day (a Pollyanna-ish view, since surge production was no longer possible), on extra oil from Canada (which had its own needs for imported oil), and on commercial inventories to cushion the shock.

The task force identified war with the Soviet Union as the biggest threat to oil supplies, since all imports except those from Canada would be at risk. The group concluded that no plans were needed for more than a 12-month interruption of this sort, since it would be hard to keep a war between the superpowers from going nuclear, in which case the U.S. infrastructure, which relied on oil, would be wiped out.

According to contingency plans provided to the task force by the White House, the United States could reduce oil use during an emergency with rationing, similar to measures employed in time of war. It estimated "curtailing nonessential demand" could reduce use of gasoline by 40 percent. The task force was also told of classified plans at the Defense Department for keeping indoor temperatures at 55 degrees during a winter emergency.

Without quotas, the task force estimated oil imports would grow substantially and range from 27 to 51 percent of total use by 1980 (compared to 21 percent when the report was issued). Dropping quotas would create more dependence on the Middle East, but at a level it thought could be handled. The report predicted, "New discoveries and new technology at home and abroad . . . will have a major impact on the security situation in 1985," thus providing a period during which the United States could draw down its own reserves.[5]

Shultz' view that oil imports would not be a major problem in the future because of new technologies reflected analysis being done elsewhere in the government. By the beginning of the Nixon administration, the Atomic Energy Commission estimated a quarter of electric

generation would be nuclear by 1980, the share would rise to half by 2000, and virtually all electric plants built in the twenty-first century would be nuclear. Other alternative technologies like gaseous and liquid fuels produced from coal (synfuels) and oil shale were also getting attention.[6]

The recommendations of the task force fell short of winning the full endorsement of the many interests that participated in its deliberations, nor even of its own members. The National Petroleum Council testified the likelihood of an interruption was much greater than acknowledged by the economists working on the report, and invoking wartime rationing plans to counter interruptions "would be politically unacceptable to the American consumer" in peacetime.

Two federal departments represented on the task force (Commerce and Interior) also strongly resisted the report's conclusions and wanted to retain quotas. These members argued the extra cost to consumers was only $1 billion a year, a reasonable price to pay given the turbulence in the Middle East and the need to support U.S. producers.

If Nixon had had his druthers, he would have avoided involvement in the oil import question. The conflict between the northeastern states wanting inexpensive fuel and the oil-patch states wanting protection was a no-win situation politically at a time he was trying to win an ideological majority of new Republicans and conservative Democrats in the Senate.

In a letter to the White House, George H. W. Bush—son of a former United States senator from Connecticut and a rising 45-year-old Republican star in Texas—complained the abandonment of import controls would "wreak havoc on my state and its people."

A week later, Bush forwarded correspondence from his former business partner J. Hugh Liedtke. The by-then chairman of the Pennzoil Company cited the electoral impacts of Nixon's pending decision:

> I am particularly interested in the possibility that George Bush will run for the senate from Texas. . . . If, in the opinion of the administration, it becomes necessary to materially change the present import quota system, I do not think he can be elected no matter what his support may be.[7]

In his private diaries, top Nixon aide Robert Haldeman confirmed the impact of the elections on Nixon's decision, "If we do what we should, and what the task force recommends, we'd apparently end up losing at least a couple of Senate seats, including George Bush in Texas. Anticipating Nixon's eventual announcement, he penned, "Trying to figure out a way to duck the whole thing and shift it to Congress."[8]

Nixon decided not to jettison the quotas. (Bush still lost his 1970 Senate race to Democrat Lloyd Bentsen.) The president did later, however, chip away at them with a series of ad hoc decisions allowing more imports. As a result, neither producers nor consumers were given clear direction about the future of oil import policy.

In August of 1971, Nixon delivered a prime-time nationally televised address with a bombshell announcement that ended up distorting energy markets (and encouraging additional oil imports) for almost a decade. "I am today ordering," Nixon declared, "a freeze on all prices and wages throughout the United States for a period of 90 days."

Nixon's major goal—whether with the original freeze or later, tightly controlled increases—was to keep prices low going into his 1972 reelection campaign. As Paul Volcker—who as Under Secretary of Treasury worked on the plan—later observed, ". . . the program of August 15, 1971 . . . combined with an accommodative monetary policy to produce the strongest kind of electoral platform for Mr. Nixon: rapidly rising production and a clearly reduced rate of inflation."[9]

Low prices encouraged rapid growth in energy demand. Nonetheless, the Nixon plan did in the short term help harness inflation and was even more effective in limiting oil prices. In 1972, the retail price of gasoline remained at 36 cents a gallon for the third straight year, making this price (when controlled for inflation) the lowest in the history of oil sales. These were remarkable data. Declining domestic oil production and import restrictions were limiting the amount of fuel available, while energy consumption continued to zoom. The economists' laws of supply and demand were in suspension due to price controls.

In the weeks approaching reelection, Nixon called together his key economic advisors for a long rambling discussion about priorities for his second term. Nixon refused to talk about energy problems in public, but he confided that the growing scarcity of energy supplies was at the top of his concerns.