House Select Committee on Energy Independence and Global Warming April 1, 2008

Written Testimony

Robert A. Malone Chairman & President, BP America

My name is Bob Malone and I am Chairman and President of BP America.

BP appreciates the opportunity to provide the Committee with information concerning our operations and investments. I am proud of our investments and the commitment they represent to the development of a secure energy future in the US. I am here today to convey BP's perspective about the marketplace and share our understanding of the choices we as Americans must make in order to ensure a diverse and adequate energy supply for future generations.

We are privileged to be the nation's largest producer of domestic oil and gas and one of the nation's largest energy investors. In 2007 BP's US production of oil was 513,000 bpd and gas production was over 2 Bcfd.

We operate the largest integrated solar manufacturing plant in the United States in nearby Frederick, Maryland.

We are major investors in wind generation and have amassed a land portfolio capable of potentially supporting 15,000 megawatts (MW) of wind generation, one of the largest positions in the country. We are building 700 MW of wind generation this year and expect to have an installed capacity of 2,400 MW of wind power by the end of 2010.

We are one of the largest blenders and marketers of biofuels in the nation. Last year, BP blended 763 million gallons of ethanol with

gasoline and we are underwriting cutting edge research – investing more than \$500 million over the next 10 years –in the search for a new generation of biofuels that contain more energy... have less impact on the environment... and which do not reduce the supply or increase the cost of food.

We are attempting to develop hydrogen power generation with carbon capture and sequestration. In California we are evaluating a \$2 billion, industrial scale project that will use petroleum coke to make hydrogen for use in power generation. Carbon dioxide, a byproduct of producing hydrogen, will be captured and safely and permanently stored underground.

In short, BP America is working to expand the supply of energy available to the United States and is committed to continue reducing the environmental impact of both energy production and consumption.

Our approach has been shaped by a hard truth.

Hard Truths

The US today is faced with tremendous energy challenges. It is experiencing the impact of years of policies, poor market dynamics and company decisions that have limited access to resources, discouraged development and constrained new investment to meet growing consumer demand for energy. BP recognizes the negative effects high prices have on the economy and the consumer. We alone can't change the conditions that brought us here. Energy companies, policymakers and consumers all have a role to play in creating a new energy future for the US.

This relationship must be shaped by the recognition that the US economy needs both to better conserve energy and to produce more energy of every type to meet growing demand. We need to invest in conventional oil and gas. We also need to invest in renewables and alternatives to begin the transition to a low carbon future. However, we must all understand that this future is many years away and that

renewables and alternatives will not make a material contribution to total US energy supply for many years.

This view is reflected in a recent study issued by The National Petroleum Council in July of 2007 - <u>Facing the Hard Truths About Energy</u>. It was an in-depth, comprehensive review of the entire energy sector that benefited from participation and support from a diverse group of stakeholders and more than 1000 persons/groups involved in energy.

I have integrated its observations and conclusions below and added emphasis as necessary.

There is no single, easy solution to the global challenges ahead. Given the massive scale of the global energy system and the long lead-times necessary to make material changes, actions must be initiated now and sustained over the long term. Over the next 25 years, the US and the world face hard truths about the global energy future:

- Coal, oil, and natural gas will remain indispensable to meeting total projected energy demand growth.
- The world is not running out of energy resources, but there are accumulating risks to continuing expansion of oil and natural gas production from the conventional sources relied upon historically. These risks create significant challenges to meeting projected total energy demand.
- To mitigate these risks, expansion of all economic energy sources will be required, including coal, nuclear, biomass, other renewables, and unconventional oil and natural gas. Each of these sources faces significant challenges including safety, environmental, political, or economic hurdles, and imposes infrastructure requirements for development and delivery.

The Council proposed five core strategies to assist markets in meeting the energy challenges to 2030 and beyond. All five strategies are essential, the US must:

- **Moderate the growing demand for energy** by increasing efficiency of transportation, residential, commercial, and industrial uses.
- **Expand and diversify production** from clean coal, nuclear, biomass, other renewables, and unconventional oil and gas; moderate the decline of conventional domestic oil and gas production; and increase access for development of new resources.

- Integrate energy policy into trade, economic, environmental, security, and foreign policies; strengthen global energy trade and investment; and broaden dialogue with both producing and consuming nations to improve global energy security.
- Enhance science and engineering capabilities and create long-term opportunities for research and development in all phases of the energy supply and demand system.
- **Develop the legal and regulatory framework** to enable carbon capture and sequestration. In addition, as policymakers consider options to reduce carbon dioxide emissions, provide an effective global framework for carbon management, including establishment of a transparent, predictable, economy-wide cost for carbon dioxide emissions.

The above excerpts only begin to touch upon the level of analysis contained in the nearly 400 page report. This report provides a complete assessment and a non-partisan roadmap on how and what to do in the area of energy policy.

BP Operations in America

BP's US operations have been challenged over the last few years - significantly impacted by a series of accidents and operational problems in both our refining and upstream businesses. BP has made significant investments to upgrade its assets, strengthen operations, improve its safety performance, and enhance compliance to prevent another such period from happening again.

Over the last 5 years, BP in America earned approximately \$31.7 billion after-tax. Income taxes paid over the period have steadily increased to an effective rate of 37% in 2007 – with BP paying over \$14 billion in income tax over the period.

There are some who say oil industry profitability is excessive. But this ignores the size and scale of our business. Comparing oil industry performance to that of the broader market average (Exhibit 1) shows that our earnings are comparable. Looking at all the industrial sectors, oil and gas industry performance was in the middle of the pack (Exhibit 2).

Regarding investments, over the last 5 years BP has reinvested in the US \$31.5 billion into projects across the energy spectrum. And, over the next decade, we expect to continue to invest an average of \$6 billion a year.

These investments stretch across the entire country, from the Gulf of Mexico to the North Slope of Alaska and from the East Coast to the Midwest and the West Coast. The company's major spending programs also touch every major segment of the energy industry, from exploration and production of oil and natural gas through refining and distribution of fuel products, as well as alternative energy and biofuels. By heavily investing in a diverse range of energy sources – from traditional oil and natural gas production to alternative and renewable energy including solar, wind and hydrogen power – BP is helping meet America's energy needs today while ensuring a more secure energy future.

Below is a partial list of our current major investments:

Energy Biosciences Institute - \$500 million

The institute focuses on exploring bioscience applications and applying them to the production of new and cleaner energy, principally renewable fuels for road transport. The institute is a joint collaboration with the University of California Berkeley, University of Illinois – Urbana Champaign and the Lawrence Berkeley National Lab. The project will look at the entire biofuels value chain – from feedstock to enzymes to process and on through to advanced biofuels molecules.

Colorado Natural Gas - \$2.4 billion

Increase ultimate recovery of coalbed natural gas from the San Juan Basin of southwestern Colorado by an estimated 1.9 trillion cubic feet. The 13-year development program would increase current BP net production of 425 million cubic feet per day by more than 20 percent, and maintain production above present levels for more than a decade.

Whiting refinery modernization - \$3.8 billion

Upgrade and expand the Whiting refinery to increase Canadian heavy crude oil processing capability by about 260,000 barrels per day. The project also has the potential to increase motor fuels production by about 15 percent, or about 1.7 million additional gallons of gasoline and diesel per day.

Wind Power - \$700 million

BP and its partners invested about \$700 million in 2007 to develop wind capacity throughout the US, including California, Colorado and Texas. During 2008, BP will construct 5 US wind farms with a total generating capacity of 700 MW and a total value of over \$1.5 Billion. This will bring our total installed capacity of wind generation to over 1,000 MW by the end of 2008. By 2010, we expect to have 2,400 MW installed. This is enough power to meet the needs of 720,000 households.

Solar Manufacturing Expansion - \$97 million

BP is expanding the BP Solar manufacturing facility in Maryland, nearly doubling its capacity. When completed in 2009 the plant will have a manufacturing capacity of 150 MW in its casting and sizing processes.

Deepwater Gulf of Mexico - \$20 billion

BP is increasing exploration and production of oil and gas from deepwater reservoirs in the U.S. Gulf of Mexico. BP will continue development plans to explore new lease area and bring producing areas on-line (Thunderhorse, Atlantis...).

Alaska renewal - \$685 million

BP is investing hundreds of millions of dollars in Alaska each year to commercialize and produce the billions of barrels of known oil resources in our Alaska portfolio. We have enough known oil and gas resources to sustain production for the next 50 years but this will require billions of dollars in new investments.

Wyoming Natural Gas - \$2.2 billion

Over the next 15 years BP will double our natural gas production in Wyoming. Several hundred new wells are planned in the Wamsutter Field, BP's largest onshore development drilling program.

Husky Energy Joint Venture – \$5.5 billion

BP and Husky will jointly develop Canadian oil sands resource and upgrade and modernize BP's Toledo, OH refinery. When fully operational the project is expected to deliver an incremental 200,000 bpd of oil to the US market and allow Toledo to produce 600,000 gpd more product to Midwest consumers.

However, as we look to the future, the US investment climate is deteriorating. Various efforts have unnecessarily impeded viable and critical infrastructure projects; promising development areas have been declared off-limits; existing manufacturing operations have been challenged in their efforts to upgrade and expand; and new taxes have been proposed which will discourage future energy resource development. Furthermore, these stumbling blocks exist across the energy profile and are not just confined to oil and gas activities.

Support for Renewables

Emblematic of these gaps are policy discussions concerning how to support and fund the development of alternative energy resources like wind, solar and biofuels. Not surprisingly, policymakers and consumers generally support efforts that promote the development of renewable energy. As is reflected in its investment portfolio, BP concurs with this sentiment. However, there is significant divergence of opinion regarding the question of how to fund the necessary financial incentives.

BP strongly supports the renewal of incentives for wind, solar, and biofuels. They are an important part of why the US has been so successful in developing its renewable energy sector, but we cannot support a tax package that discourages efforts to bring on other much needed energy sources (oil and gas production). As shown in

Exhibit 3, the oil industry is already heavily taxed compared to others in the manufacturing sector. In fact, the effective rate for 2006 was nearly double that for all manufacturing companies.

Despite the growth and development activity we are experiencing in alternatives, they cannot close the supply gap that is projected to occur over the next 20 year period. Fossil fuels like coal, oil, and natural gas will be critical to meeting expected energy demand growth.

Our nation, with 5 percent of the world's population, demands 25 percent of daily world production. I don't think this is sustainable. The US must produce more of the energy it consumes and has a responsibility to use that energy wisely.

Based on our experience in developing renewable infrastructure, there are many non-financial opportunities that would be effective in stimulating additional investment. These include:

- Expedited siting and permitting of transmission to allow for the distribution of clean power (wind, solar) from generating areas to load centers;
- Providing for market, time-of-day pricing for solar power installations to allow homeowners and others to provide excess power back to the grid during the peak demand periods at the same rate utilities charge others;
- Adopting a renewable portfolio standard (RPS) that requires power generators to utilize renewable sources like wind and solar in their mix. Experience has shown that in those states that have a RPS, renewable usage has increased significantly.

Biofuels

Similar policy gaps exist in the area of biofuels. Last year's energy bill created significant opportunities to develop and grow the contribution of biofuels to the transportation fuels market. BP shares the view of policymakers that biofuels may be able to attain penetration rates of 30% by 2030 thus playing a huge role in meeting future transportation needs. However, the legislation created new

challenges that could in the end create market distortions, supply disruptions and higher consumer prices if not adequately addressed. First, the implementation timetable is very aggressive, creating a risk to delivery of fuel in sufficient quantities to the markets where it is needed. Congress, while mandating biofuels blending, did nothing to ensure that the market was prepared to accommodate the huge storage, transportation and delivery infrastructure requirements necessary to get the product to the consumer.

Perhaps the greatest concern is that if biofuels producers can't supply – fuel retailers pay a penalty; if biofuels manufacturers can't produce – fuel retailers still pay a penalty. In order to make the emerging biofuels market work effectively, there must be a shared obligation with biofuels producers to ensure product reaches the consumer at the lowest possible price. We look to work with stakeholders to ensure this is done effectively as the implementing regulations are drafted.

Climate policy

Our nation will face difficult choices as we take steps to foster economic growth, ensure our nation's energy security and protect the environment. Chief among these environmental concerns is that of global climate change.

A decade ago BP was the first oil company to acknowledge the need to reduce greenhouse gas emissions. In the years since, we have worked to reduce emissions from our own operations and to provide consumers with cleaner, lower carbon energy options. However, because the energy industry is so large, diverse and complex, there are limits to what a single company or a single facility can do to address this global problem.

For that reason, BP has long advocated for the creation of a single, mandatory US greenhouse gas emissions registry and a market-based price for carbon. Market-based programs deliver the greatest and fastest reductions at the least cost. Just as important, they create a level playing field, meaning that everyone must be part of

the solution and first movers aren't placed at competitive disadvantage.

The fact that Congress has not yet addressed national climate policy has not deterred some from trying to impose requirements as if a national policy existed.

Most recently, legislation has been adopted to discourage development of Canadian oil sands - the single largest oil resource base outside of Saudi Arabia. Additionally, a bill has been introduced to prevent the US from utilizing its world leading resource position in coal for power generation. Similarly, efforts are underway to either allow or encourage state or local jurisdictions to try and impose CO2 reduction targets on individual projects in order to make them uncompetitive and further discourage resource development.

Why do I mention these examples? They clearly represent efforts to limit energy development opportunities that would enhance US energy security, economic development <u>and</u> environmental protection. One may only conclude that by limiting engagement, understanding and dialogue concerning the choices facing consumers, the public will accept the notion that all fossil fuel energy development should be discouraged.

We believe Congress should set policy goals and allow the market to decide which technologies best deliver upon the objectives it sets. To do otherwise stifles the very technology breakthroughs and developments Congress supports.

Energy imports

Over the years, US policy has, in effect, encouraged oil and gas providers to look beyond the US border to meet growing US energy demands, yet policymakers often question our reliance on foreign oil imports. Policymakers also implore OPEC to produce and develop its own oil resources in order to reduce crude oil prices in the US. I question whether it is reasonable to rely on OPEC to solve a problem abetted by inconsistent US policy?

The US should strive to more fully develop its own resource base – to make a greater contribution to world oil supply – otherwise we will increasingly rely on imported energy to meet the needs of our growing economy.

Industry frustration levels are high because we see the potential to greatly expand US development opportunities (Exhibit 4). In fact, we have experience in the US Gulf of Mexico that proves with the proper policy enablers industry will respond overwhelmingly. Since 1985, oil production from the deepwater Gulf has increased 15-fold, from 58,000 to 870,000 barrels per day. Despite water depths in excess of 1 1/2 miles, well depths as great as 30,000 ft and operating temperatures and pressures greater than we have ever experienced, industry responded to Government encouragement to invest, explore and develop this resource base. This is a huge success story as the deepwater Gulf now accounts for every sixth barrel of oil produced in the US.

We have no reason to believe that this success can't be replicated in other areas across the US.

Energy Markets

Your hearing notice indicated an interest in understanding the drivers behind the run-up in crude oil and gasoline prices. The following provides a brief synopsis of our market view.

Crude oil prices have increased sharply in recent years and have recently set record inflation-adjusted highs. The US benchmark West Texas Intermediate rose from an average of about \$26 per barrel in 2001/02 to \$72.20 in 2006. So far this year, WTI has averaged \$97.27 (through March 24th), and peaked at \$110.35 on March 13th.

Tightening oil market fundamentals have been the key driver of higher prices. Economic growth is always a key driver of oil demand, and the world has just seen the strongest 5-year period of global

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¹ Source for price data: Platts

economic growth since the early 1970s. While China has seen strong (and particularly energy-intensive) economic growth, so has the rest of the world.

Complicating this growth profile, some developing countries and oil exporters with rapidly growing economies subsidize prices in their domestic markets, thereby shielding consumers from the impact of rising world prices. For example, Venezuelan drivers pay about 7 cents per gallon—the world's lowest price—and Iranian drivers pay about 42 cents per gallon.²

Supply factors have also contributed to higher prices. Production is declining in mature provinces such as the US, the North Sea, and Mexico. Growth in Russian production has slowed. Shortages of labor and supplies as our industry has ramped up spending, combined with growing resource nationalism, have resulted in widespread project delays.

In addition, OPEC has more successfully managed production levels. OPEC production cuts in 2007 were a key factor in reducing inventories and increasing prices. In addition, a number of OPEC members have experienced supply outages in recent years that continue to affect production levels, beginning with the PDVSA strike in late 2002 and including the Iraq war and civil unrest in Nigeria.

In addition to current fundamentals, changing expectations about the future have also affected oil prices. Many observers feel that geopolitical risks to oil supply have increased in recent years. Expectations of rising costs (including taxes) as well as policy changes in oil-producing countries that constrain the industry's development opportunities have bolstered long-term price expectations.

At the same time, a variety of factors have resulted in growing interest among financial investors in oil and other commodities. Recently, investors have responded to fears about a US economic

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² Venezuela: NY Times 29 Oct 07; Iran: Yahoo News 17 Mar 08

downturn and a weakening dollar by seeking safety in oil and other stores of value, such as gold.

All of these factors have increased the price of oil.

The capacity for energy companies to respond with more supply has been constrained by several factors:

- The project development capacity of the global energy industry atrophied in the 1990s after years of low prices. Accumulating new specialized labor and equipment takes time and is expensive.
- Marshalling sufficient labor, materials, and equipment has been slowed by competition for resources from other industries that also took part in the rapid global economic expansion earlier this decade. The shortage of workers with relevant skills in the sciences is a particular concern.
- Finally, governments have limited the ability of companies to respond by limiting access to resources and raising the cost of doing business through new taxes and greater government regulation.

Given the labor and equipment capacity constraints, companies can and do continue bidding for a limited number of resources (drill ships, platforms, supply and heavy lift vessels) needed to produce oil. This has raised the cost of producing oil in the US and around the world.

What are the impacts of high oil prices?

Both producers and consumers are responding to higher prices. Our industry is growing investment rapidly: Official DOE data shows that US onshore Lower48 production rose in 2006 and 2007—the first increases since 1985. More broadly, non-OPEC supply continues to increase, driven by new investments in deepwater production, heavy oil, and biofuels. Consumers are also responding: Despite above average economic growth, global oil consumption growth was below average in 2006 and 2007.

However, medium-term fundamentals continue to look supportive of a high crude oil price. It appears unlikely that the outlook for supply and demand will result in a massive build-up of OPEC spare capacity as was seen prior to the price collapse in the mid-1980s.

Oil has always been—and will remain—a cyclical commodity. Lead times for capital-intensive projects are long—it can take upwards of a decade to develop a deepwater oilfield, and (on the demand side) 15 years to turn over the vehicle fleet. It is reasonable to expect that prices will again experience a downside of the cycle…at some point. At the same time, a number of factors—such as rising taxes, more costly forms of production, and difficulty accessing reserves—suggest that prices will remain above previous lows in any future downturn.

How does oil price influence gasoline price?

As shown in Exhibit 5, gasoline and diesel product price trends virtually mirror those of crude oil over the last 6-year period. However, examining recent price movements reveals that for the period of January 1 through March 14, 2008 gasoline price increases have lagged those experienced in the crude oil market (Exhibit 6, API, and NYMEX)

Exhibit 7 graphically represents the components that make up the cost of a gallon gasoline:

- The biggest single component of retail gasoline prices is the cost of the raw material used to produce gasoline - crude oil.
 Crude oil alone makes up 58 percent of pump prices (API, 2007 EIA data).
- Another major factor in gasoline prices is federal, state and local taxes, which account for 15 percent of the cost (API, 2007 EIA data). The nationwide average for gasoline taxes is currently almost 46 cents per gallon.
- Refining the crude oil into gasoline accounts for 17 percent of the retail price (API, 2007 EIA data). Refining costs can be affected by several factors:

- U.S. refineries customarily reduce production each spring for routine maintenance before the heavy summer driving season.
- Costs to comply with various government fuel regulations
- The remaining 10 percent of the cost of gasoline is the cost of distribution and retailing (API, 2007 EIA data).

Service stations may sell gasoline from a major oil company, but about 95% of stations are operated by independent business people who determine their own prices, which include a margin to pay for their cost of doing business and to provide a profit (although a profit can't always be assured).

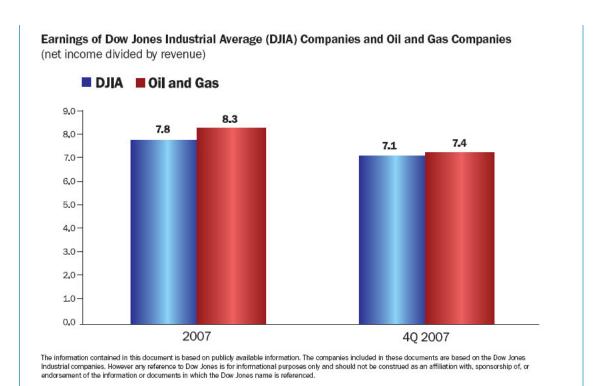
Retailers base pricing on a variety of factors including the station's location and size, and such expenses as delivery costs, taxes, and contractual obligations to suppliers. Retailers also react to the prices charged by competing stations. If a station prices its gasoline too high compared to competitors, customers may take their business to a station with lower prices. If a station loses enough volume, it may then reduce prices to attract customers.

A station's retail price also typically reflects the cost to replace the gasoline currently in its tanks. If the station doesn't generate enough cash to buy its next delivery, the retailer would be using debt to finance that purchase.

What's next?

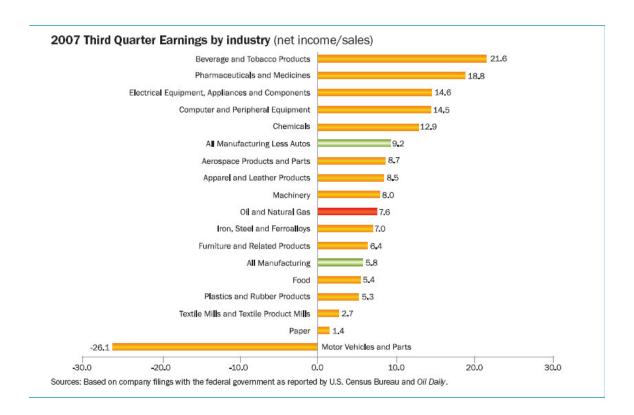
As I stated earlier, the US faces energy challenges today because of policies, market dynamics and decisions of the last few decades. Our focus should be to improve the situation and to lay the groundwork necessary to create a secure new energy future. We believe US interests are served by a strong energy industry enhancing US economic growth and enabling successful companies to better compete in the world economy.

It is my commitment to pursue policies and investments that will enhance oil and gas supplies, produce more motor fuels and begin to make the transition to a lower carbon future. I would like Congress to partner with us in this journey?



The fourth-quarter and full-year 2007 earnings for the oil and natural gas industry are very large because the companies are very large. But the earnings are not out of line when they are compared with the earnings rate of other Dow Jones Industrial Average companies by measuring the cents earned for every dollar of revenue. In

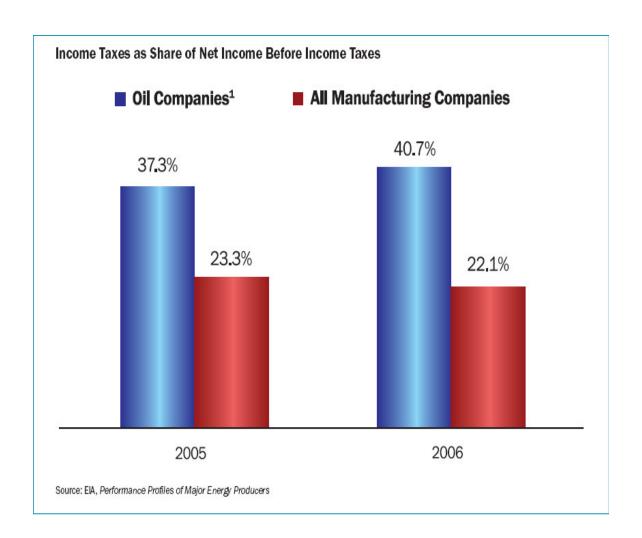
fact, the average earnings rate for the Dow Jones companies is only slightly below the earnings rate for the oil and gas industry. And there are other industries that do far better than oil and gas, including pharmaceuticals, computers and chemicals.

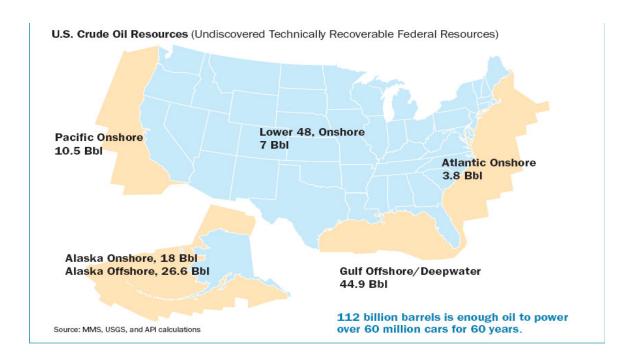


It may seem surprising that oil and natural gas earnings are typically in line with the average of other major U.S. manufacturing industries. This fact is not well-understood, however, in part because reports usually focus on only half the story—the profits earned.

Profits reflect the size of an industry, but they're not necessarily a good reflection of financial performance. Profit margins, or earnings per dollar of sales (measured as net income divided by sales), provides one useful way to compare financial performance among industries of all sizes.

The latest published data for the third quarter of 2007 shows the oil and natural gas industry earned 7.6 cents for every dollar of sales compared to 5.8 cents for all U.S. manufacturing and 9.2 cents for U.S. manufacturing, excluding the financially challenged auto industry.



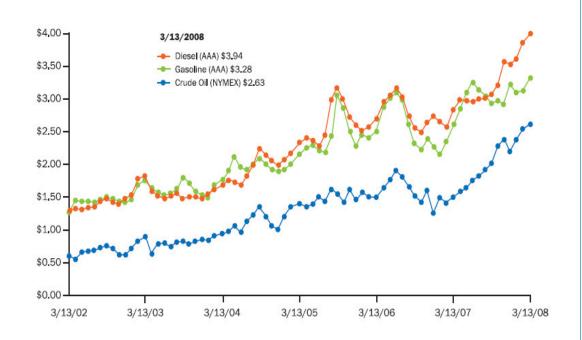


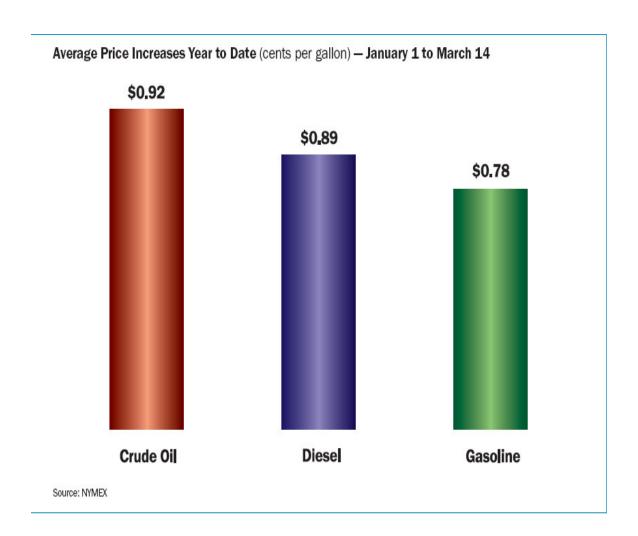
Our nation's energy security requires policies that do not disadvantage the investor-owned oil companies, but rather enables them to be competitive in the global marketplace. Our nation needs policies that promote greater supplies of oil and natural gas, not policies that hinder our industry's ability to provide American consumers the energy they demand and need. We have

abundant volumes of oil and natural gas resources beneath federal lands and coastal waters, but the bulk of these resources have been placed off-limits to development.

For example, according to federal government estimates, there is enough oil in these areas to power more than 60 million cars for 60 years.

Diesel, Gasoline and Crude Prices





What consumers are paying for at the gasoline pump



8.3% Earnings*

Source: Average of gasoline components from January through December 2007 as reported by EIA. *Earnings differ by company. Figure represents average 2007 industry earnings for every dollar of sales.

The biggest single component of retail gasoline prices is the cost of the raw material used to produce gasoline—crude oil. For example in 2007, crude oil alone makes up 58 percent of pump prices. Refining made the crude oil into gasoline

accounted for 17 percent of the retail price.

Retailing added another 10 percent to the retail price of gasoline. Taxes accounted for 15 percent of the price of gasoline.