REALITY CHECK
ExxonMobil CEO Lee Raymond on the World's Growing Demand for Energy – And the Facts

Like all polished executives, ExxonMobil CEO Lee Raymond knows how to spin the facts to put his company in its best light. But his interview on ExxonMobil's website passes the spin boundary and takes off towards a disreality land that ignores pertinent facts. To set the record straight, here is a "REALITY CHECK" of Mr. Raymond's comments to ensure that the reader has the facts about his statements on oil dependence, the Arctic National Wildlife Refuge, renewable energy, and a host of other environmental topics.

The Interview is from:
http://www.exxonmobil.com/corporate/Newsroom/Publications/TheLamp_1_2005/html/story1.asp

Meeting the world's growing demand for energy
An interview with Lee Raymond

This is the second in a series of interviews with Exxon Mobil Corporation Chairman and CEO Lee Raymond. In this session, he discusses the challenges of keeping pace with the world's growing demand for energy.

Q. What prompted the company to begin using "taking on the world's toughest energy challenges" as ExxonMobil's communications theme?

A. Oil companies have many responsibilities, and we affect societies in a large number of ways. We employ people, we help local communities, we earn money for our shareholders, and our operations and products affect the natural environment. But the most important thing we do is to provide commodities that are vital to the mobility, comfort and prosperity of people everywhere — even those who don't use our products directly. For our industry, that is Job 1, and ultimately it is how well we do that job that is of most interest and concern to the public. We are not always successful in communicating to the public how challenging that basic job is. In particular, I do not think that the public has a very good understanding of the size — indeed the immensity — of the energy industry and the global energy market which we serve. This can lead to some serious misperceptions and misunderstandings. Without a sense of the scale of the energy business, people can be led to underestimate the technical and economic challenges that are involved with change, and the very long time frames that will be required for any changes to be developed and deployed. People can forget that for change to be effective and significant, it has ultimately to be applicable on a large scale, and able to benefit societies that are extremely poor as well as those that are economically prosperous.

REALITY CHECK: Change does take a long time, particularly when companies like ExxonMobil resist it. Unlike many other oil companies, ExxonMobil continues to deny the existence of global warming or invest in the renewable energy and energy efficiency

technologies to fight it. Instead, it has spent almost $37 million on lobbyists to push its agenda on Capitol Hill since 2000 – including opposing reductions in global warming pollution, fighting funding for the cleanup of toxic waste sites, and weakening the Clean Air Act.

Q. How do you respond to those who want the United States to make energy independence a strategic priority?

A. I have said many times that the concept of energy independence is a flawed notion when considering strategic priorities for the United States. In a very real sense, it can be both a negative influence and misleading because it implies that there are practical alternatives for this country to become energy independent. As a result, some observers may accept energy independence as a realistic goal, when in fact it is not. The other point I would make is that very few countries around the world are energy independent, and most of the developed or larger countries are major energy importers, including Japan, France, Italy, Germany and, more recently, China.

REALITY CHECK: Mr. Raymond is correct; the U.S. consumes 25% of the world's oil but has only 3% of its known oil resources. We can never become energy independent, particularly by drilling for more oil. Unfortunately, ExxonMobil's response to this reality is to advocate for oil drilling in the Arctic National Wildlife Refuge, which would take ten years to supply the nation with less than a year's worth of oil. In 2015, oil from the Refuge would only reduce imports a tiny amount from 62% of our supply to 60% (Energy Information Administration)

Q. If energy independence is a flawed notion, what do you suggest as a practical alternative?

A. Many practical options exist for policymakers who understand that the United States will be an energy importer for an extended period into the future. First, it is essential to seek diversity in the supplies to which the United States has access worldwide. Second, the United States should develop its indigenous resources — an undertaking that I am certain would yield economic benefits for both employment and the balance of trade. Third, we should all recognize the need to be more efficient in how energy is used. Every nation in the world draws on the world's energy supplies. It is therefore critical that our global energy resources be used efficiently and responsibly.

REALITY CHECK: As noted above, the U.S. has only 3% of the world's oil resources, so "develop[ing] its indigenous resources" would barely make a dent in our reliance on foreign oil. To ExxonMobil, developing "indigenous resources" means oil drilling in fragile wild places, such as the coasts of California, Florida, North Carolina, in the Great Lakes, and many other fragile, irreplaceable coastal areas. It also means drilling onshore in fragile western public lands and the Arctic National Wildlife Refuge.

Seeking an increase in oil and gas from on shore "indigenous resources" – primarily western public lands -- is an impractical solution to our energy needs. A study by the Environmental Working Group of U.S. of Bureau of Land Management data determined that 15 years of drilling (1989-2003) produced only 53 days of oil and 221 days of natural gas. This amounts to less than one percent of U.S. oil consumption during these 15 years.

REALITY CHECK: ExxonMobil could drill in many wild places because it controls land within five miles 400 natural treasures (Environmental Working Group compilation of U.S. Bureau of Land Management data) This includes areas in and adjacent to Canyonlands National Park in Utah, the Powder River Basin in Wyoming, and many western wilderness study areas.

REALITY CHECK: Although Mr. Raymond says "we should all recognize the need to be more efficient in how energy is used," ExxonMobil has not supported an increase in fuel economy standards. In fact, it gave more than $700,000 in 2003-2004 to the Competitive Enterprise Institute – one of the leading opponents of enhanced fuel economy.

Two-thirds of oil use fuels transportation, yet fuel economy for motor vehicles is at a 24 year low of 20.8 miles per gallon (mpg). The National Academy of Sciences determined that there are existing technologies to increase the average for cars to 40 mpg. This would save *four times* more oil than would be produced by the Arctic Refuge at its peak.

The ultimate answer to our energy problems is to increase the use of clean, homegrown renewable energy, increase the efficiency of buildings and appliances, and make motor vehicles go much farther on a gallon of gas. None of these solutions are part of ExxonMobil's energy agenda.

Q. You have long advocated developing indigenous resources. Are you including resources many think exist in the Arctic National Wildlife Refuge (ANWR)?

A. The United States has an obligation to understand what the facts are when assessing its resource base. The U.S. Geological Survey (USGS) and others have suggested that there may be several billion barrels there. But as we in the oil business know, until you drill and find it, it is only a geologist's expectation. As we have learned during the past 100 years, such expectations are sometimes not met. I do not know if commercially significant quantities of oil or gas exist in ANWR. But on the other side of the equation, if the USGS is close to being right, it is a significant potential energy resource for the United States.

Some critics have argued that we should not be looking for resources of the size that may exist in ANWR, and that they should be larger. That is a flawed argument because there are not many exploration projects anywhere in the world that we would pursue if they were predicated on such a standard. In fact, though the global supply picture comprises large producers, such as Saudi Arabia, it also includes a large number of much smaller resources developed in many countries all around the world. I'm not going to make the case that the nation's energy supply is substantially at risk if ANWR is not pursued. I don't think we have a basis to say that. However, willful and deliberate ignorance about the country's energy resource base is also not a wise approach.

REALITY CHECK: According to a March 2004 report by the U.S. Energy Information Administration (EIA), it would take 10 years before Arctic Refuge oil could first be produced. In 2015, it would only make up 0.3% of world oil production (300,000 barrels per day). Even when production peaked (in 2025), Arctic Refuge oil would make up only 7/10 of 1 percent

(876,000 barrels per day) of world oil production and only 3% of U.S. oil consumption. Production would diminish steadily after 2025.

REALITY CHECK: Research by the Department of Energy and EIA found that implementing five simple short-term solutions *now* could save 685,000 barrels of oil per day – slightly more than the Arctic Refuge would produce. These solutions are:

*** proper inflation of tires;**
*** use correct grade of gasoline;**
*** ensure that replacement tires are as fuel efficient as original tires;**
*** use fuel efficient engine oil; and,**
*** reduce idling of heavy trucks.**

Q. How do you interpret the intense media focus on alternative energy sources?

A. It is very likely that alternative forms of energy will begin to make more of a contribution to energy supply in the coming decades. But here is where an understanding of scale is so important. For example, even with an expected rapid growth rate for wind and solar energy, driven in large measure by public subsidies, their contribution to global energy will still be in the 1 percent range in 2030. That is because they start from a very low base, and because the global energy market is so huge. What all of this means, and without disparaging the importance of working on alternative energy approaches, is that for many decades the key issue in energy will be how to find and produce enough conventional energy to support global economic activity and prosperity for a growing world population.

REALITY CHECK: Mr. Raymond dramatically underestimates the potential for renewable energy in the U.S. A 2004 study by Synapse Energy Economics Inc. for U.S. PIRG determined that "renewable resources, especially wind, [could] provide roughly 15% of US generation by 2025."

REALITY CHECK: *Business Week* magazine determined that "some states now require that a percentage of power come from renewable sources. We should consider this nationwide, with a target of perhaps 15%." (February 24, 2003*)*

REALITY CHECK: Mr. Raymond mentions that the growth of renewable energy will be driven by public subsidies. The public subsidies for renewable energy pale in comparison to the subsidies given to the oil industry. Between 1950 and 1997, the oil and gas industry received more than $350 billion in federal subsidies, or 60 percent of all federal energy subsidies.

Q. How has the industry's size affected perceptions about what it will take to produce the world's future energy supplies?

A. One of the difficulties people have, even some who work in this business, is understanding the scale and size of the energy industry. This is important to understand in order to put in perspective what some of the alternatives are and to judge if they are significant in the context of the whole.

There are many alternative forms of energy that people talk about that may be interesting. But they are not consequential on the scale that will be needed, and they may never have a significant impact on the energy balance. To the extent that people focus too much on that — for example, on solar or wind, even though they are not economic — what they are doing is diverting attention from the real issues. And 25 years from now, even with double-digit growth rates, they will still be less than 1 percent of the energy supplied to meet worldwide demand. I am more interested in staying focused on the 99 percent than the 1 percent.

REALITY CHECK: While Mr. Raymond discounts the potential contribution from renewable energy, other oil companies, such as Shell and BP, are rising to the challenge to invest in it. For instance, Shell spent about $1.5 billion since 1999 investing in solar and wind power. BP spent $500 million on solar energy since 2000 and $30 million on wind over the past three years. These and other companies recognize that renewable energy can play a significant role in meeting the world's energy needs.

Q. Here in the United States, improvements in air and water quality have been very significant in the past 30 years, but many people think things have actually become worse. Why is there such a wide gap between perception and reality in the environmental area?

A. That is a hard question to answer. You are certainly correct to note that air quality and water quality have been greatly improved in recent decades. Part of the confusion may exist because people may not understand how much money the private sector and governments everywhere have invested in improving the environment. It is truly a remarkable success story. But when the facts must compete with the ideological agendas or inflamed rhetoric that often pervades discussions about energy and the environment, it is hard to get that success story out to the public. It may not be a headline news story to report that air or water quality is substantially better now than it was 10 or 15 years ago. But I believe we have a duty to help inform and educate people about the facts.

REALITY CHECK: Although air and water quality have improved since 1970, too many Americans are still plagued with pollution. For instance, "more than 52 percent of the U.S. population lives in counties which have unhealthy levels of either ozone or particle pollution," according to a recent study by the American Lung Association.

REALITY CHECK: Rivers no longer catch on fire, as the Cuyahoga River did in 1969. Nonetheless, a study by U.S. PIRG based on Environmental Protection Agency data found that "approximately 39% of our rivers, 51% of our estuaries, and 46% of our lakes are impaired for one or more uses and thus still too polluted for safe fishing or swimming."

REALITY CHECK: In 2003, ExxonMobil U.S. facilities produced nearly 285 million pounds of toxic waste (EPA data from RTKNET.org). This includes cancer causing pollutants such as benzene and harmful substances such as chlorine. This figure does not include non-toxic pollutants such as sulfur and nitrogen oxides – major ingredients in acid rain and smog.

Q. How are the rapid advances in technology shaping ExxonMobil's future?

A. ExxonMobil is driven by technology. One thing we have learned over a long period of time is that there are always opportunities to do things better. We also have long understood that we must have creative skills in the organization and the people to figure out how to develop and use the technology. We work diligently to give everyone the tools necessary to foster scientific progress and technological innovation — the tools of the work environment, access to technology, the ability to collaborate with other outstanding people and the opportunity to bring their ideas to fruition. We work hard at creating an environment that encourages new and better ways to do things. In a very important sense, that has always been a priority at ExxonMobil. The results are always a little different because time marches on, and what was new five years ago is now embedded in the organization.

So the question is: What's new today? We are always looking for the answer. We're a big organization and a big company. Ultimately, it is the exceptional quality of the people at every location around the world that continues to define ExxonMobil today. We are the premier company in the industry, and we have been from the beginning. And we intend to continue in that position for many years to come.

REALITY CHECK: Despite Mr. Raymond's lip service in favor of "scientific progress and technological innovation," ExxonMobil continues to deny that global warming exists despite overwhelming international scientific consensus to the contrary. Even other oil companies now agree that global warming threatens the planet. In June 2005, the U.S. National Academy of Sciences joined similar institutions from ten other nations in a call for prompt action to reduce global warming pollution.

Despite this scientific consensus, ExxonMobil claims that the "nature and causes of climate change are still debated." (ExxonMobil.com, July 3, 2005)

REALITY CHECK: In addition to ignoring the scientific agreement around global warming, ExxonMobil uses some of its huge profits to fund junk science to deny the existence of global warming. Between 1998 and 2004, ExxonMobil donated more than $15 million to organizations working to influence global warming policy. Many of these organizations are members of the "Cooler Heads Coalition" formed to "dispel the myths of global warming by exposing flawed economic, scientific, and risk analysis." (website, June 12, 2005)

REALITY CHECK: ExxonMobil has resisted "technological innovation" to spur the development of renewable energy. Despite the windfall from high oil prices, ExxonMobil is unlikely to invest in developing alternative, clean energy sources. Rex Tillerson, President of ExxonMobil and likely successor to Mr. Raymond, indicated that the company assumes that America will continue to remain dependent on oil. He argued that we "need to accept the reality of this rather than undertake expensive and risky steps trying to avoid it." (March 4, 2005) In other words, ExxonMobil will not focus on research to increase energy efficiency or develop renewable energy sources.

REALITY CHECK: ExxonMobil often touts its "Stanford Global Climate and Energy Project" (GCEP) as its effort to develop low emission energy technologies. Its research is focused on making fossil fuels burn cleaner and dealing with carbon *after* its release. These are useful goals, but will do little to advance clean, home grown renewable energy technologies

and reduce global warming pollution *before* it's released. Any new technologies may not be available for commercial application for at least a decade. The project lacks any measurable goal for the reduction of global warming pollution, and there is no guarantee that ExxonMobil will employ any of the new technologies.

ExxonMobil claims its 10 year, $10 million per year commitment represents a huge commitment of resources. To put this contribution in perspective:

- **the $100 million dollar pledge equals *two days* of its 2004 profits;**
- **Mr. Raymond received four times as much in salary and stock in 2004 as was spent on GCEP that year; and,**
- **Shell spent about $1.5 billion since 1999 investing in solar and wind power. BP spent $500 million on solar energy since 2000, and $30 million on wind over the past three years.**