

## **Peak Oil Editorial:**

### **Peak Oil Reality Picks Up Momentum**

**BAKERSFIELD, Calif.--(EWIRE) December 1, 2005** -- Joseph P. LaStella, P.E., President of GSPI stated, "Biodiesel is becoming a household word very quickly and production of biodiesel is expanding by margins not predicted by anyone even as recently as one year ago. US production of biodiesel in 2005 will be 200% higher than 2004. Biodiesel is gaining prestige as a domestic renewable fuel while the phenomenon called 'Peak Oil' is becoming a national controversy."

'Peak Oil' is a point in time where crude oil production reaches its maximum output and begins to decrease while demand continues to increasingly exceed production.

Mr. LaStella stated, "The need to increase US production of biofuels is directly related to the 'Peak Oil' problem."

On November 25, 2005, USA Today published an article titled, "Can Oil Production Satisfy Rising Demand?"

The USA Today article quotes a Chevron Ad: "The world consumes two barrels of oil for every barrel discovered. So is this something you should be worried about?"

The USA Today article also states, "Energy Secretary Samuel Bodman has asked a high-level advisory board to answer one of the toughest questions dogging the U.S. economy: Can world oil production meet steadily rising demand?" The article further states, "Avoiding economic turmoil will require more than a decade of 'intense, expensive effort,' according to a February study by Science Applications International for the Energy Department. The U.S. would need to build alternative fuel plants and greatly increase vehicle fuel efficiency."

Mr. LaStella also states, "Peak Oil is not a case of 'if' it is going to happen, only 'when' it will happen."

The concept of when it is going to happen is at the center of the controversy. A review of the data from respected industry sources reveals some startling factors. For example: the US consumes more crude oil than the next five top industrial nations combined. However, further illustrating the problem the US is not listed among the top ten nations with proven oil reserves.

In fact, Saudi Arabia has twice the oil reserves as any other nation. Additionally, almost 50% of the world's proven oil reserves reside in Saudi Arabia, Iran and Iraq. This is not a good position for the US to be in.

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Another impending question is: How much oil do the Saudi's actually have left to support world demand?

Mathew Simmons is author of a recent book that questions the extent of Saudi Arabia's oil reserves. What Simmons discovered tells a different story than conventional wisdom.

"Simmons analyzed 200 technical papers on Saudi reserves by the Society of Petroleum Engineers."

"Saudi Arabia has over 300 recognized reservoirs but 90% of its oil comes from the five super giant fields discovered between 1940 and 1965. Since the 1970s there haven't been new discoveries of giant fields. The most significant of the oil fields is Ghawar. Found in 1948, the 300-mile-long sliver near the Persian Gulf is the world's largest oil field and accounts for 55%-60% of all Saudi oil produced. Ghawar's current proven reserves are 12% of the world's total. The field produces 5 mbd, which is 6.25% of the world's oil production. According to Simmons, Ghawar's northern regions are almost depleted. Two other giant fields, Abqaiq and Berri, also seem to have peaked in the 1970s."

"To meet global demand for oil, Saudi Arabia will need to produce 13.6 million barrels a day (mbd) by 2010 and 19.5 mbd by 2020."

The report further states:

"Saudi Arabia's oil fields now are in decline, that the country will not be able to satisfy the world's thirst for oil in coming years and that its capacity will not climb much higher than its current capacity of 10mbd. Considering the growth in demand, this could easily spark a global energy crisis."

While the Simmons Report paints a dismal view of the ability to meet increasing demand for oil, another report by Senator Roscoe Bartlett, R-Md, even goes a step further and scientifically reviews the possible alternative energy sources that may supply the world's energy needs.

Senator Bartlett earlier this year presented his in-depth study concerning Peak Oil on the floor of the Senate (see website [www.bartlett.house.gov](http://www.bartlett.house.gov)) and met President Bush this summer to urge government action.

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Many people scoff at the Peak Oil Theory. However, the Bartlett Report addressed all of the issues and confronts them with scientific data, not with wishful dreams. Consider just a few factors that Peak Oil Theory opponents often cite as possible cures, which are essentially flawed, for our energy problems:

1) The US has coal reserves for 250 years. This is not correct. Cars and trucks do not run on coal. Coal would have to be turned into liquid or gas to be a viable solution. This conversion requires a huge amount of energy for conversion and will require hundreds of billions of dollars to build energy conversion plants to make a difference, not to mention the time for construction and environmental hurdles it would encounter. Additionally, when considering the input energy requirement and calculating only a 2% growth rate for energy consumption the coal reserves would be exhausted in only 50 years. In conclusion, coal reserves will not be able to bridge the energy gap but they will help.

2) Raising prices of oil will stimulate oil exploration and this argument is used to open up wildlife-protected areas to new exploration. This is not a solution at all. Lets consider the existing Alaska pipeline, which was suppose to be an answer to US future energy needs. The Alaska pipeline only produces 5% of the present US requirements of oil. Further, the public does not know that part of the Alaska oil is shipped to Asia not the US because the US does not have the refinery capacity on the west coast to accept Alaska's production.

It is important to note that the Bartlett Report cites the fact the US production of crude oil hit its Peak Oil production in 1970 and has heavily relied on imported crude since. The world is now facing the same Peak Oil crisis with no safety net.

3) Canadian oil sands have been cited as a possible solution because of its oil reserves, that is the good news. The bad news is tar like sands require enormous amounts of natural gas and water to extract its oil in a hostile environment requiring huge capital investment.

Kenneth Deffeyes, a Princeton University Professor Emeritus of Geosciences, calls the talk of substantial tar sands production a "fantasy of economists," adding "they believe if you show up at the cashier's window with enough money, God will put more oil in the ground." (See USA Today October 17, 2005).

A 96-page study prepared in February 2005 from the Department of Energy (DOE) concluded: "The world is fast approaching the inevitable peaking of conventional world oil production (a problem) unlike any yet faced by modern industrial society."

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4) The Bartlett Report states that none of the alternative fuels by themselves can affect the coming Peak Oil crisis. However, we desperately need all of them to ease the transition period. Solar, wind, geothermal, biomass, oil shale, tar sands, ethanol and biodiesel, and of course, the most important: conservation.

Some people think hydrogen is the answer. Hydrogen is not an energy source it is only an energy transmitter. It takes a real source of energy to make hydrogen. Any of the previous mentioned energy sources can make hydrogen. Hydrogen is not a solution to the world energy problem.

In summary, it is note worthy to group the energy sources in certain categories to identify other important factors at work.

Solar, wind and geothermal energy plants are capital intensive and will require huge investments and considerable time to make a significant impact. All of the other energy sources, except biodiesel, have a negative energy output, which it means it takes more energy to produce them than is contained in the final product. For example, it takes more energy to produce a gallon of ethanol than it contains in the final gallon of ethanol.

Only biodiesel has a positive energy flow. For every unit of energy it takes to make a gallon of biodiesel it produces 3.5 units of energy in the biodiesel (see reference NBB web site [www.biodiesel.org](http://www.biodiesel.org)). Furthermore, biodiesel plants require much less capital investment to construct and can be built in a shorter time frame than other plants with minimal environmental impact.

Mr. LaStella stated, "biodiesel is not the only solution except it is one of the most viable."

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