



Turn Waste Into Wealth With The Resource Revolution Poised To Take The Energy World By Storm

Scientists Make Major Breakthrough That Could Vault This Discovery To The Forefront Of The U.S Energy Debate

Mt. Vernon Research | 105 West Monument Street | Baltimore, MD 21201 | 877.465.1415 | www.mtvernonresearch.com

In his annual State Of The Union speech in January 2006, President George Bush declared that: “America is addicted to oil.”

It was a statement that came as little surprise to economists. Just take a look at the statistics:

- America spends more than \$450 million each day to import oil. That’s more than \$500 per year for every person in America.
- Oil prices have soared 40% since the end of 2005 – and although they’re down from a high of \$78.40 per barrel in July 2006, they’re still three times higher than in 2001. Moreover, the U.S. Department of Energy says prices will remain above \$50 per barrel for the next 20 years.
- Oil reserves are dwindling as demand surges – largely spurred by rapid economic growth from countries like China and India. China is the world’s second-largest oil importer, and the U.S. Department of Energy estimates that China’s demand will more than double, to 14.2 million barrels per day by 2025.
- Over 97% of our transportation system relies on oil, consuming two-thirds of all the oil we use.

Statistics like that demonstrate just how dependent we are on oil – and how vulnerable we are to industry shocks, given that most of the world’s oil is located in politically unstable areas. But Bush’s statement did light a fire under the energy sector and accelerated the debate over how the country can wean itself off oil dependence.

He continued to say that: “The best way to break this addiction is through technology.” He simultaneously set a target of reducing US oil imports by 75% by 2025 by using alternative fuels.

And the most feasible way to meet this goal is by increasing ethanol production.

Kicking The Oil Habit: As Easy As Catching A Can Of Corn?

If you live in America’s heartland, you might have noticed some big changes. Ethanol plants are popping up all over the farm belt like weeds. (And as I’ll explain in a moment, weeds, in fact, might solve a big part of the U.S. energy problem).

Today, there are 107 grain ethanol refineries in the U.S., with the capacity to produce 5.1 billion gallons of ethanol per year. But with ethanol demand expected to jump 50% over the next couple of years, there are 56 construction projects underway that will add 3.8 billion gallons of capacity in the next 12-18 months.

And it's revolutionized the ethanol industry. In 1980, total U.S. ethanol production was 175 million gallons, according to the Renewable Fuels Association. But as new technology has made ethanol a viable alternative energy, that figure had ballooned 2,130% to 3.9 billion gallons by 2005.

While some scoff at ethanol's potential, the use of ethanol to replace oil is not a pipedream. Brazil has already proved it. Almost three-quarters of the vehicles in Brazil now use ethanol fuel, and the country has successfully replaced imported oil worth an estimated \$120 billion. This translates to a savings of about \$2 trillion.

Congress responded by passing the Energy Policy Act of 2005 – a bill that mandates renewable fuel usage to rise from 4 billion gallons today to 7.5 billion gallons by 2012. Moreover, it requires that ethanol replace the toxic additive MTBE. This switch alone is expected to increase demand for ethanol by 2 billion gallons annually.

And because pure ethanol uses 30% less energy per unit than gasoline, the goal is for ethanol to gradually relieve consumer dependence on the 150 billion gallon per year market for gasoline.

Even American auto heavyweights GM and Ford favor greater use of ethanol. The two titans plan to capitalize on a provision in the new law requiring federal agencies to increase the number of flex-fuel vehicles in their fleets, and Ford is set to supply New York City with a fleet of flex-fuel taxi cabs.

Simply put... as long as oil and gasoline prices remain high, the U.S. government will continue to boost the amount of funding and incentives available to ethanol companies, in order to get production rolling. With a 52-cent tax credit for every gallon of ethanol produced, and no taxes on the profits, the government is effectively giving ethanol producers a license to print money. And astute investors will be laughing all the way to the bank.

But there's a new development taking the ethanol industry by storm – one that could supercharge your investment returns...

How Everyone Else's Junk Can Become Your Treasure

Until now, all of the world's fuel ethanol has been produced using yeast fermentations in high-value materials such as corn starch and cane syrup.

But the new energy plan focuses ethanol research on the development of fuels made from agricultural waste known as "biomass." Biomass is basically agricultural waste, including farm and wood waste, plus plant stalks, wheat straw, corn stems, leaves and even sewage sludge. While this might not exactly get your heart racing, here's the interesting part:

In most biomass, the energy is locked up in cellulose and a similar substance called hemicellulose, which together constitutes 70% to 85% of the waste. And scientists have recently developed revolutionary methods for producing energy by uncovering cellulose-hungry organisms and microbes that consume biomass materials.

I'll skip the scientific details... all you need to know is that the process basically converts cellulose into high yields of ethanol.

This major breakthrough represents the "Holy Grail" of ethanol production, since it could lead to mass production of ethanol from simple waste products. Once the cellulose plants are in place, energy companies can simply collect the waste and give it to the ethanol plants for instant cash.

A recent report from the U.S. Department of Agriculture and Department of Energy states that more than one billion tons of biomass can be produced on a sustainable basis each year using this method.

What's more... converting this organic waste into ethanol could replace half of all imported petroleum in the United States. And when sufficient ethanol plants are up and running, the state of South Dakota alone could produce enough ethanol to be the third-largest energy exporter in the world, after Saudi Arabia and Iran.

The Future Of American Energy: E-Coli... Termites... Fungus... Algae

So it's not surprising that this development has sparked a frantic race among energy companies to develop the most effective bugs to devour biomass and convert it into fuel. And they're finding unconventional ethanol-producing omnivores in the most unlikely places. For example...

A University of Florida research team has developed genetically engineered E-coli bacteria to convert cellulose found in plant cell walls into fuel ethanol.

Scientists are scouring the rainforests of Costa Rica for termites, harnessing their ability to digest cellulose.

Engineers are harvesting a fungus that devoured Army tents during World War II, which they're using to convert cotton into ethanol.

Researchers in China are cultivating strains of tall grasses and tinkering with plants' genes to make better energy crops.

Researchers at Colorado State University recently announced a partnership with Solix Biofuels to develop a prototype conversion plant at a local brewery to convert common algae to biodiesel. They say swimming pools and aquariums can produce up to 100 times more oil per acre than soy or canola, the current major sources of biodiesel.

Ethanol "On The Move" And Raking In Research Money

The U.S. government is subsidizing new cellulosic ethanol research and technology. President Bush proposed \$150 million in the 2007 budget for research into advanced forms of ethanol. That's a hefty 65% increase over current levels.

As Bush says: "The ethanol industry is on the move, and America is better off for it."

Right off the bat, developing a commercial use for the 300 million tons of cellulosic waste generated annually would reduce pollution. In addition, one of the other major benefits of cellulosic ethanol produced from the waste is that it's environmentally-friendly. Bio-based chemicals produce a tiny fraction of the pollution generated by the manufacture and use of petroleum. Burning biological fuels also creates far less carbon dioxide than fossil fuels.

"A Sector That Can Be As Big As The Internet"

Support for cellulosic ethanol has sprung up from some unlikely sources. For example, former Federal Reserve chairman Alan Greenspan recently said that cellulosic ethanol is the only alternative energy source that could be produced in enough volume to make a dent in gas usage.

And smart investors are already jumping on the bandwagon:

- Microsoft founder Bill Gates recently invested more than \$79 million of his own money into fledgling ethanol producer, Pacific Ethanol.
- Virgin Group supremo Sir Richard Branson is pumping an estimated \$400 million into a new California cellulose ethanol venture, Cilion. He's also building an ethanol plant for his airline,

Virgin Atlantic Airways.

- Vinod Khosla – one of the founders of Sun Microsystems – is a principal executive of Cilion, and has also invested tens of millions of dollars. He’s proclaimed this new industry part of “a macroeconomic shift that will change the whole planet.”
- Another group of investors led by Stephan Dolezalek, managing director of VantagePoint Venture Partners, recently invested \$181 million in alternative fuels. Says Dolezalek: “This is a sector that can be every bit as big as the Internet.”

In all, Bloomberg states that investors have pumped more than \$14.3 billion into the ethanol industry in the past year alone.

And make no mistake... the content of the energy bill assures that ethanol demand is set to explode. With the widespread backing it has received and initiatives already in place, the industry is revved up for enormous growth. This gives you many new and exciting opportunities for enormous returns.

The *Xcelerated Profits Report* team has been tracking the ethanol industry for almost two years now. Many investors jumped blindly on the ethanol bandwagon and lost money on the new companies in what is still an evolving and volatile industry. But in July 2006, Investment Director Karim Rahemtulla recommended a well-diversified, dividend-yielding ethanol-based play to readers that is up more than 40% so far, as the industry continues to flourish. To find out more about how to play the ethanol industry profitably and gain exclusive access to a team of professional traders who’ll show you how to use simple, yet highly effective, proven investment strategies that consistently beat the market, [click this link to read the special report.](#)

Copyright 2007, Mt. Vernon Research, LLC 105 W. Monument St., Baltimore, MD 21201

All rights reserved. No part of this report may be reproduced or placed on any electronic medium without written permission from the publisher. Information contained herein is obtained from sources believed to be reliable, but its accuracy cannot be guaranteed.

Mt. Vernon Research Disclaimer: *Nothing published by Mt. Vernon Research should be considered personalized investment advice. Although our employees may answer your general customer service questions, they are not licensed under securities laws to address your particular investment situation. No communication by our employees to you should be deemed as personalized investment advice. We expressly forbid our writers from having a financial interest in any security recommended to our readers. All of our employees and agents must wait 24 hours after on-line publication or 72 hours after the mailing of printed-only publication prior to following an initial recommendation. Any investments recommended by Mt. Vernon Research should be made only after consulting with your investment advisor and only after reviewing the prospectus or financial statements of the company.*