For Immediate Release

Sapphire Energy Urges Senators to Adopt New Renewable Fuel Standards

CEO Jason Pyle Provides Testimony to Senate Energy Committee Hearing on 'Food vs. Fuel' Debate

Washington, DC – June 12, 2008 – Jason Pyle, CEO of Sapphire Energy, today testified before the full U.S. Senate Committee on Energy and Natural Resources that the biofuel debate around 'food versus fuel' can be effectively solved if Congress adopts standards that encourage the growth and development of all new alternative energy technologies. Current renewable fuel standards are 'technology specific', and provide incentives to only certain categories of alternative biofuels, such as corn for ethanol or soybeans for biodiesel. Pyle urged adoption of a 'technology neutral' stance in new regulation and legislation.

"The way out of the 'food versus fuel' debate is to start a dialogue about how to support truly sustainable alternative fuel sources," said Pyle.

"A growing, competitive market is the best solution to separate winners from losers in the critical quest to find new forms of alternative fuel. A subsidy system should support a constantly changing landscape of fuels and fuel technologies.

"New technologies will allow us to transcend this Pyrrhic choice between food and energy."

The world's first renewable gasoline

Sapphire Energy announced last month it has developed the world's first completely renewable gasoline made from sunlight, CO_2, and photosynthetic microorganisms such as algae. The end result — high-value hydrocarbons chemically identical to those in gasoline — are entirely compatible with the current energy infrastructure, from cars to refineries and pipelines.

"Our goal is to produce a renewable fuel without the downsides of current biofuel approaches," said Pyle.

Not biodiesel, not ethanol. And no crops or farm land required.

The Sapphire platform offers vast advantages – scientific, economic and social – over traditional biofuel approaches.

As Pyle emphasized during today's hearing, Sapphire's technology requires no 'food vs. fuel' tradeoff. The process is not dependent on food crops or valuable farmland, and is highly water efficient.

Pyle noted that when Congress first adopted the Renewable Fuel Standard in 2005, it wisely recognized that neither biodiesel nor ethanol would be the final solution. It created the program as a bridge to a new generation of fuels, and established a system of incentives to create a marketplace for new technologies. Congress' task now is to determine whether these mechanisms will support the development of fuels that give America true energy independence and don't impact agriculture and the global supply of food.

"The wave of the future is in fuel technologies that don't compete with farmland," he said. "And that will require the full support of incentives that are neutral and fair."

About Sapphire Energy

Sapphire Energy was founded to address the overwhelming inadequacies of current biofuel approaches and the profound costs of American dependence on foreign oil. The company has built a revolutionary platform using sunlight, CO_2 and microorganisms such as algae to produce renewable, 91 octane gasoline that meets ASTM standards; it is **not** ethanol and **not** biodiesel. Sapphire is led by an interdisciplinary team of entrepreneurs and experts in cell biology, plant genomics and algal production, as well as investors with long histories of taking innovative technology to market, including co-founder ARCH Venture Partners, along with the Wellcome Trust and Venrock. Sapphire's scientific supporters include The Scripps Research Institute; University of California, San Diego; the University of Tulsa, and the Department of Energy's Joint Genome Project. The company is located in San Diego. For more information, visit www.sapphireenergy.com and www.greencrudeproduction.com.

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Testimony of

Jason Pyle, Chief Executive Officer,

Sapphire Energy, Inc.

before the

Committee on Energy and Natural Resources

United States Senate

June 12, 2008

"Transcending Food vs. Fuel:

Moving Toward a Technology-Neutral RFS"

Mr. Chairman and members of the Committee, thank you very much for inviting me to participate on this important panel, and on this critical issue.

First, let me thank the Committee for its leadership on alternative, renewable fuels. Your keen focus and vision have resulted in the first ever Renewable Fuel Standard. Although there will inevitably be elements of RFS that will improve over time, you've guided the country along on the right path. Second, within the RFS debate, I want to thank this Committee for its vision and support for technology neutrality in RFS legislation, even though that vision did not survive final passage. As you predicted by supporting a technology neutral position, we are now seeing the evolution of an entirely new generation of renewable fuels. These fuels transcend the use of food as fuel feedstock. The current dilemma that pits fuel against food is just the first of many consequences of a technology-specific RFS. Without a technology-neutral RFS, this nation will not meet its goals of providing 32 billion gallons of renewable fuel by 2022. Although last year's Energy Independence and Security Act has yet to foster such solutions, this Committee should be applauded for anticipating an ever-expanding universe of alternative and renewable fuels.

That's why I am here. I'm Jason Pyle, Chief Executive Officer of Sapphire Energy. Sapphire is one of several of this nation's best technology companies working to produce the next generation of renewable fuels. At Sapphire, we focus on the production of current fuel products, such as gasoline, diesel and aircraft fuel, from completely renewable sources, such as photosynthetic microorganisms, or algae. Our mission is to produce fuels for today's oil and gasoline infrastructure, and two weeks ago we announced that Sapphire had produced the first ever renewable, ASTM-compliant, 91 octane gasoline from microorganisms. Please refer to the attached two documents for more background on Sapphire Energy.

<u>The Problem</u>

One of the many reasons we have cheap food is the availability of cheap energy. We cannot expect to turn large amounts of food back into energy in an economic manner. In today's debate between food and fuel, we should not have to make a choice. Both are critical to the economy, the environment and the world at large; we should not match one against the other. But when price and demand rise for one, both suffer. Instead of a Pyrrhic choice between food and fuel, I offer the opportunity to transcend the debate and produce ample supplies of both, leading this nation toward energy independence. Instead of a dispute between two basic necessities, we need a dialogue that supports truly sustainable alternative fuel sources.

Over the past year we have all seen prices and demand rise for commodities such as corn, sugar and vegetable oil. The entire world now feels the pressure. Daily we are faced with reports of people who struggle to afford essentials. A host of factors has contributed to price increases for food and fuel: weather, heightened demand, a weaker dollar, decreasing supplies.

Just like energy, food is linked in a global market. Once we begin fueling our cars with food crops, we witness international repercussions. Riots occurred in Mexico earlier this year over expensive corn flour. This price increase has been attributed to U.S. demand for corn-based ethanol products, leaving less maize available for export. Protests over similar issues have occurred around the world, contributing to inflation and political instability.

Even at an increased rate of production, current domestic biofuel processes will meet part, but not all, of U.S. demand. If the entire annual domestic soybean crop of 3 billion bushels were converted to biodiesel at the current efficiency of 1.4 gallons per bushel, it would provide about 6.5% of U.S. diesel fuel production. Though certainly a valuable asset to our fuel supply, it is clear that a spectrum of additional and diverse biofuels sources will be necessary to fulfill demand.

Congress first adopted the Renewable Fuels Standard in 2005, but wisely recognized that neither biodiesel nor ethanol would be the final solution. It created the program as a bridge to a new generation of fuels, and established a system of incentives to create a marketplace for new technologies. Congress should consider whether the incentives are neutral and fair. Ask whether these mechanisms will lead to the support and development of fuels that will give America true energy independence. Congress should ensure that the next round of incentives can be applied to advanced technologies such as Sapphire's. American innovation is the heart of our people and our economy; I urge you to support this with additional legislation that promotes a technology-neutral RFS.

<u>The Solution</u>

Food for fuel concerns are real, but can be managed. Industries such as ethanol from corn and biodiesel from vegetable oil can continue to play an important role in the energy mix. However, if we intend to practically and economically reach the goals of the RFS, we must be ready to rapidly embrace new fuel technologies. We must call on American ingenuity and entrepreneurialism for the solutions.

When Congress passed the Energy Policy Act of 2005, it put the country on a path toward an energy future independent of imported resources. As Americans, we must support this vision. We should strive to maximize production, create fuel-efficient cars, reduce the amount of driving we do and, finally, develop alternatives to fossil fuels. All these efforts deserve increased support. But without a truly new source of fuel, the system will remain in turmoil, prices will soar and the conflict between food and fuel will persist.

Senators, my colleagues and I at Sapphire Energy have been thinking about this for a long time. We knew that an energy source based on agriculture would serve this country best as a stepping stone to a green energy future. We knew that energy requiring vast amounts of fresh water resources was not a viable option. And, finally, if we wanted to make a difference quickly, we knew we needed a fuel that could be transported and refined just like petroleum. Two years ago we asked ourselves, "In a perfect world, how should the next generation of fuel be produced and distributed?" These were our founding principles:

1. Fuel production must not use farmland. Period.
2. Fuel production must be carbon neutral.
3. Fuel production and delivery must use the existing petroleum infrastructure.

4. Fuel production must scale domestically to reach tens of billions of gallons per year.
5. The next generation of fuels must be compatible with today's vehicles.

That sounded like a tall order. But Americans have dreamed big and delivered in the past – atomic energy, highways and railroads that crisscross our nation, a man on the moon, mapping the human genome. Now, a similar ingenuity has developed a completely renewable and homegrown source of gasoline. I offer that we do not have to sacrifice food production for fuel production. We do not have to choose between powering our industries and feeding the hungry.

The Sapphire processes and technologies are so revolutionary that the company is at the forefront of an entirely new industrial category called "Green Crude Production". Products and processes in this category differ significantly from other biofuels because they are made solely from photosynthetic microorganisms, sunlight and CO_2; do not result in biodiesel or ethanol; enhance and replace petroleum-based products; are carbon neutral and renewable; and don't require any food crop or agricultural land. The Sapphire process produces a replica of light sweet crude, green crude that can be used in traditional refining to make real gasoline, diesel, and aircraft fuel. Our feedstocks produce 10 to 100 times more energy per acre than cropland biofuels. A side benefit of our process is that the microorganisms consume pollutants and convert them to fuel. Using the Sapphire process, we have dramatically altered the domestic energy and petrochemical landscape and avoided the food versus fuel debate.

Please allow me to reiterate, the Sapphire process does not create ethanol; it does not produce biodiesel; it does not use crops or valuable farmland. Sapphire fuel is the fuel we use today, the kind that is in your car or truck or airplane right now. It's gasoline, diesel and aircraft fuel. Senators, this is a solution. This is a truly renewable, truly sustainable, alternative fuel—"Sapphire's green crude oil".

This fuel, Sapphire fuel, is the world's first truly renewable petrochemical product, produced by converting sunlight and CO_2 into a renewable, carbon-neutral alternative to conventional fossil fuels, without the drawbacks of current biofuels.

This fuel is compatible with the current energy infrastructure—cars, refineries, and pipelines.

Sapphire's scalable production facilities will produce this fuel economically because production will be modular, transportable, fueled by sunlight, and not constrained by arable land, crops, or other natural resources. Sapphire has turned sunlight into gasoline.

<u>The Government's Role</u>

Governments often offer subsidies in areas in which they hope to create incentives for certain economic behaviors. Naturally, governments must act as arbiters to separate those who qualify from those who do not qualify for the subsidies. Unfortunately, sometimes those separations create an artificial division that prevents the subsidies from achieving their goal. The nation has asked for energy independence and cleaner fuel products. Thankfully, our lawmakers have responded and given us a Renewable Fuel Standard. Unfortunately, the artificial division of technology within that standard is hindering the most promising fuel technologies from developing alongside existing renewable industries. The nation asked for

energy independence and cleaner fuel products, not a specific subsidy for a specific fuel process. If we want to have 32 billion gallons of renewable fuel in 2022, we are going to need every source of technology and development possible to deliver it. Please take the handcuffs off of innovation and allow all forms of renewable technology to participate in the Renewable Fuel Standard.

We at Sapphire are fortunate in that we receive financial support from top venture capital firms such as ARCH Venture Partners and Venrock, and from one of the world's largest and most visionary foundations, the Wellcome Trust. Not all emerging producers of green crude or renewable gasoline, however, will be so fortunate. By continuing to subsidize mostly the existing technologies instead of emerging alternatives, the government runs the risk of discouraging a real future of renewable energy.

I support technology neutrality when it comes to subsidies for renewable fuels. In other words, none of the technologies and products that would help achieve the RFS should receive favorable treatment—not biodiesel, not cellulosic ethanol, and not fuels from algae. A growing competitive market should separate winners from losers. A subsidy system should support a constantly changing landscape of fuel and fuel technology. I recommend a technology-neutral platform that supports criteria rather than specific feedstocks, fuels or fuel processes. I am offering a future that relies on non-arable, non-agricultural land; a future based on domestic fuel production and a supply of fuel we use today within 5 years time. I believe this will be an essential part of the renewable fuel landscape and I urge you to assist me and other innovative companies with technology-neutral legislation.

Conclusion

The unfortunate phrase "food vs. fuel" suggests a conflict, a dilemma. We have faced this dilemma because there have been virtually no viable alternatives to existing sources of fossil fuel. Until now. At Sapphire Energy, we can change all that. This is the fuel that can address the food versus fuel dilemma by enabling ample production of both.

Thank you again, Mr. Chairman, for the opportunity to appear before you. I will gladly take questions from you and the Committee at the appropriate time.