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Testimony to the Senate Committee on  
Agriculture, Nutrition, and Forestry

Hearing to examine high gas prices and how  
new rules and innovative farming can help

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Chairwoman Stabenow, Ranking Member Roberts, and members of the Senate Committee on Agriculture, Nutrition, and Forestry; thank you for the opportunity to testify today.

My name is Jeff Broin, and I am CEO of POET, the world's largest ethanol producer. I am also Co-Chairman of Growth Energy, a group committed to realizing the economic potential of ethanol.

Given our current situation, where activities across the world out of our control wreak havoc on gas prices and make importing oil even less desirable, this hearing couldn't come at a better time. Thanks to ethanol, high gas prices today are lower than they could be, and with a strong commitment to renewable fuel coupled with ingenuity from farmers and ethanol producers, we can do so much more to alleviate future price shocks. But first, I would like to tell you a little bit about who we are.

POET has come a long way in more than two decades of renewable fuel production. I am proud of the 1.7 billion gallons of ethanol and the 9 billion pounds of animal feed we produce each year. I am especially proud to know that we are doing our part to make our nation safer, our environment cleaner, our fuel prices lower and our country's citizens more prosperous.

Although we are a large company today, we are still closely tied to our agricultural roots. POET's 27 plants are spread across rural communities in 7 states, and we maintain close relationships with the farmers who provide us with our feedstock and the communities in which we work. We look forward to the near future in which new sources for ethanol – from cellulose – allow us to have a presence in communities all over the United States. POET has developed the technology to make that happen, and with stable policy and market access we can begin building it immediately.

But before we go into all of that, I'd like to give you some history for perspective. I'd like to tell you where POET began.

I got my start in ethanol production at a young age on our family farm near Kenyon, Minn. At the time, we were paid by the government to take land out of production, a concept that did not sit well with my family. My father could not allow good, productive farmland to sit idle.

So he took action. He set up a small, farm-scale ethanol plant on our property, where we could produce and use our own feedstock to make our own fuel. It was energy independence on a micro-scale, and it planted the seed for what was to come.

From there, we invested in our first ethanol plant in 1987 in Scotland, South Dakota. We mortgaged the family farm to buy the 1 million-gallon-per-year ethanol plant (which was large for the time). We learned every aspect of ethanol production while on the job, from plant operations to marketing to design and construction. I was the general manager of that first plant, and I actually lived in the plant while we upgraded the equipment prior to startup.

From that broad knowledge base and with help from a lot of really good people, we built a company. Back then, we never imagined POET would become what it is today, and we never knew that in 2011 the ethanol industry would replace 10 percent of our nation's gasoline supply.

Today, I see an industry and a fuel that is having significant positive impacts, not only for those who produce it and their rural communities, but for every driver in America who has the opportunity to use homegrown renewable fuel.

One of those impacts is needed today more than ever.

Gas prices are increasing, and I applaud the committee for calling this hearing to address the issue. When you ask how innovative farming can help, you are asking the right question. It was just a few years ago that skyrocketing gas prices led to passage of the Energy Independence and Security Act of 2007 (EISA) which called for 36 billion gallons of renewable fuels.

Several studies have shown that to be the right response. The National Renewable Energy Lab and McKinsey and Company recently summarized those studies and concluded that ethanol keeps U.S. retail gasoline prices about 17 cents per gallon lower. That translates into an annual savings of \$100 per driver and approximately \$24 billion in annual savings for U.S. drivers as a whole. Other studies have found the savings as high as 50 cents per gallon.

The study found that ethanol saves money for drivers in five ways:

- ethanol is the most economically competitive fuel component
- ethanol is significantly cheaper than other oxygenates
- ethanol increases the fossil gasoline yield at the individual refinery level, due to its high octane
- ethanol reduces expensive fossil gasoline imports
- ethanol contributes at the global level to the gasoline supply

So if you want to keep gas prices in check, passing EISA was the right thing to do. But that's already been done and gas prices are on the rise again, this time fueled by instability in oil-producing countries. What can be done today?

The most important thing we can do is to follow through on the promise of the Renewable Fuel Standard. Although that law calls for 36 billion gallons of renewable fuels, the industry is being prevented from reaching that goal by a 30-year-old administrative rule limiting ethanol blending to 10 percent of the fuel supply. Our industry has reached that blend wall and is being prevented from producing more than the 14 billion gallons we will produce this year.

This artificial "blend wall" has many consequences for America. First, because ethanol is limited to 10 percent, we are exporting lower-priced ethanol while importing more expensive foreign oil. That's worth saying again. Because the artificial limit on ethanol blending prevents us from meeting the Renewable Fuel Standard, economically competitive American ethanol is being shipped to Abu Dhabi while \$100 per barrel oil is coming to America from Abu Dhabi. Meanwhile we've got more than \$1 billion of American assets sitting idle, ethanol assets that could be providing American jobs.

The way to change this is to allow market access. What ethanol is doing today to lower gas prices is nothing compared to what it will do in the future if given the chance.

It is entirely within our power to create a level playing field where ethanol can offer consumer choice and true competition for the majority of the American fuel tank. The surest way to lower the price of gasoline is to allow another product the opportunity to compete with it. When consumers have choices, their pocketbooks are the true winners.

Under today's scenario, with the blend wall intact, we cannot provide any more relief to consumers suffering from climbing gasoline prices. New technology such as cellulosic ethanol cannot come to market. The full benefits from ethanol are not realized.

Fortunately, the path to breaking through the blend wall is clear, and in fact, the early steps have already been taken.

The EPA has approved blends of 15 percent ethanol – otherwise known as E15 – for use in vehicles 2001 and newer. This decision was made based on data from numerous studies that showed 15 percent ethanol is a safe and valuable fuel for cars and trucks on the road today.

There is still work to do through regulation and certification before drivers are allowed to use this fuel, and I hope the industry will continue to have the support of the Senate through this process by blocking any attempts to derail the implementation of E15.

Drivers of vehicles made in 2001 or newer use about 70 percent of the fuel in the U.S. today, and that percentage will continue to grow. Once E15 hits the market, the industry will be able to move forward once again.

E15 is an important step, but it is only short-term relief. The U.S. needs to rethink the way it looks at fuel, and that requires policy that sets the stage for a long-term change in infrastructure and the market.

POET supports reform, reform that focuses on the build-out of infrastructure. Growth Energy's Fueling Freedom plan is an outline for that.

Fueling Freedom would permanently scale back the current ethanol tax credit. For a limited time, that money would be redirected toward blender pump installation: an infrastructure upgrade that truly gives consumers the choice at the fuel station. Blender pumps allow consumers to choose what percentage of ethanol they'd like to use, including blends such as E10, E20, E50 or E85.

Add to that a low-cost Flex Fuel Vehicle requirement and allow ethanol pipelines access to loan guarantees.

With those elements in place, the oil industry and their suppliers would no longer enjoy exclusive access to 90 percent of American fuel tanks. As we all know, the best way to lower prices for consumers is to allow competition in the marketplace.

Beyond that, what the ethanol industry really needs is simple stability. Government incentives and blending targets are far less effective when their future is in doubt. Investors look at the long-term prospects of a project before getting involved, and uncertainty from Washington adds an element of risk to those projects.

With your help, the ethanol industry has the potential to make oil price spikes and other energy problems a concern of the past.

Speaking of potential, let me tell you a little about what POET is doing in another exciting area.

Corn ethanol has brought us a long way, and thanks to increasing yields, it will continue to be an important component of our fuel supply and offer opportunities to expand in the future. But it has also paved the way for the next big opportunity, which is cellulosic ethanol. Today, most of the ethanol comes from corn because farmers have become extremely efficient at growing the crop and it is relatively easy to convert the starch from the corn kernel into ethanol.

Cellulose, while more challenging to break down and convert into ethanol, represents an even larger opportunity because it is the most common organic compound on the face of the earth. A study from the USDA and DOE found more than one billion tons of biomass available in America each year from which we could produce 80 billion gallons of cellulosic ethanol. That is roughly equivalent to the amount of gasoline we consume from oil imports every year.

My company has been making steady progress toward the commercialization of cellulosic ethanol for more than a decade. But the 2007 Renewable Fuel Standard, along with support from the Department of Energy and the Iowa Power Fund, allowed us to dramatically speed up our efforts. Today, we have an operating pilot facility producing cellulosic ethanol from corn cobs and light stover and plans to construct a full-scale commercial plant later this year.

Our model for cellulosic ethanol builds on the foundation of our 1.7 billion gallons of corn ethanol production capacity. We will bolt cellulosic technology onto our corn ethanol plants so that we can benefit from the infrastructure that is already in place and our existing relationships with farmers, many of whom are investors in those plants. The corn ethanol plants will also become more efficient because a byproduct of the cellulosic will be used to power both the cellulosic and corn ethanol production facilities. Because we use a waste product to produce cellulosic ethanol and generate power, an independent report found that our process reduces greenhouse gas emissions by 111 percent in comparison to gasoline. Cellulosic ethanol is a carbon sink, not a carbon producer.

Nearly 100 people at POET are working on this project and our partners include universities, all levels of government, technology developers and hundreds of farmers. All are motivated to increase the production of clean, domestic energy.

This first project alone will create about 300 jobs and launch an industry that will create almost 90,000 direct jobs just by meeting minimum targets in the Renewable Fuel Standard.

Today, we are producing cellulosic ethanol from the abundance of corn crop residue in the Midwest. In the future, we can also produce it from Georgian wood chips, Arkansas rice hulls and other sources of biomass that exist in all 50 states of America. POET put forth a plan to produce 3.5 billion gallons of cellulosic ethanol by 2022. We will get there by adding cellulosic technology to our existing plants, licensing it to other ethanol producers and by getting into new raw materials like wood chips, energy grasses and waste products.

But we can't get there without stable government policy.

I'd like to share a short story about the impact of policy uncertainty in this important endeavor. To encourage farmers to supply biomass to cellulosic ethanol producers, Congress established the Biomass Crop Assistance Program, or BCAP, to match biorefinery payments to farmers up to \$45 per ton. To the 85 farmers we contracted with for last fall's harvest, it was a sign of the country's commitment to cellulosic ethanol.

Earlier this year, legislation was introduced to eliminate BCAP just as the first payments were being made, casting doubt in the minds of many of those farmers. This uncertainty will make it more difficult to sign up the additional 2-300 farmers we will need to produce commercial quantities of cellulosic ethanol.

Equivocation on other policy supports for cellulosic ethanol has had a similar impact on investors. It's difficult enough to get investment in new technologies when government policy is stable. Today, it is impossible to get financing for a cellulosic ethanol plant without a federal loan guarantee.

As the Senate considers a Continuing Resolution to fund the government for the remainder of the 2011 fiscal year, we urge you to continue funding the Department of Energy's renewable energy loan guarantee programs (Sec. 1705 and Sec. 1703). POET has invested millions of dollars in developing our cellulosic technology, and construction of the facility is dependent on our pending DOE loan guarantee application. We have continued to invest in the project based on the good faith notion that the DOE programs would function as stipulated in law and as Congress intended.

Cellulosic ethanol can build on the accomplishments of grain ethanol, hold gas prices down and make us less dependent on foreign energy. All we need is stable government policy.

To close, I'd like to address a common criticism of the ethanol industry.

You've surely heard some of the ethanol industry's detractors talking about the price of food and blaming ethanol for every increase.

The fact is oil prices and strong food manufacturer profits are the primary drivers of those costs. Biofuels and the cost of corn play a small role. The USDA just last month updated its "Food Dollar" statistic to show that only 15.8 cents of every dollar spent on food goes to the farm, and corn is a small portion of that. Transportation, packaging, profits and other factors play a far larger role in the cost of food in America.

Those working to derail the ethanol industry like to claim that without ethanol, current grain production would be redistributed to lower costs and feed the hungry worldwide.

Any of us who can think back to before a strong ethanol industry existed know that is not the case.

I referenced earlier what my family's farm looked like before the ethanol industry took hold: acres of land sitting idle. Idle land feeds no one. Idle land fuels nothing. Idle land solves no problems.

The only thing idle land does is create another government program. Well, I work with farmers today. I grew up on a farm. I know that collecting money on idle land is NOT what American farmers are interested in doing, any more than American taxpayers are interested in doling out that money.

It wasn't too long ago that policies to provide cheap grain led to intense criticism of America. Our country was accused of bankrupting Third World farmers by subsidizing our own farmers and thereby depressing world crop prices.

Now, we've got a viable market for farmers in the United States, one that helped farm income rise by 31 percent in 2010. It is undeniable that a strong market for grain is helping those who work the fields.

That benefit will extend to those who work the fields in other countries as well. Yes, there will be some growing pains as farmers bring previously farmed land back into production, but strong, sustainable grain prices are an answer to worldwide hunger. In the long term, a revived agriculture industry in those nations will allow them to feed themselves rather than depending on subsidized American grain.

The potential is enormous: A Stanford study showed that there are 1 billion acres of idled cropland that could be brought back into production, producing enough grain to feed and fuel the world.

Agriculture has responded to every challenge the world has put before it. Instead of seeking to undermine the very roots of who we are, let's look at the potential for agriculture worldwide that can be realized thanks to a new food and energy market for farmers.

I firmly believe that years from now we will look back and recognize the emergence of the ethanol industry as an important turning point in our nation and world's history.

Thank you for inviting me to be here today, and I'd be happy to take any questions.