



**Statement Of  
Scott Weishaar  
Vice President, Commercial Development  
POET**

**US House of Representative  
Committee on Agriculture**

“POET’s commitment to cellulosic ethanol”

May 18, 2010

Mr. Chairman and distinguished committee members, thank you for the opportunity to visit with you today. My name is Scott Weishaar. I am the Vice President of Commercial Development for POET. I would like to talk with you today about our company's plans to commercialize the production of cellulosic ethanol and the hurdles that you can help us overcome.

## **Summary**

The ethanol industry has a proud history of meeting and beating expectations, proving that America can produce its own energy cleanly and efficiently. We have developed the only real alternative to gasoline today in quantities that are finally posing a threat to fossil fuel dominance. POET has been involved in that mission at every step.

But we have barely tapped the potential of this clean, green renewable fuel. It is clear that Washington shares our vision of a nation free from foreign oil dependence and an economy rejuvenated by expanded energy production. Policies are in place that will help that vision be a reality: programs such as the Biomass Crop Assistance program and the cellulosic ethanol tax credit. But it will take a new commitment from Washington to allow these programs to meet their lofty goals. With your help, we will take ethanol to new heights and provide a real competitor to foreign oil.

## **POET - Introduction**

POET, the largest ethanol producer in the world, is a leader in biorefining through its efficient, vertically integrated approach to production. Headquartered in Sioux Falls, S.D., our 22-year-old company annually produces more than 1.6 billion gallons of ethanol and 4.5 million tons of high-quality animal feed from 26 production facilities nationwide. Approximately 18 months ago, we

started up a pilot-scale cellulosic ethanol plant, which uses corn cobs as feedstock, and we will commercialize the process in Emmetsburg, Iowa.

The POET development model is unique. It started on the Broin family farm in Minnesota and has been spurred by the investment of thousands of farmers and individual main street investors. POET's business model is to invest in, develop, design, construct and manage ethanol production facilities. However, the facilities are independent limited liability companies (LLC) owned primarily by individuals and local farmers that provide corn to the facility.

By leveraging business size and position, POET has created very successful ethanol production facilities. POET has achieved breakthrough progress beyond ethanol processing, extracting extraordinary new value from each kernel of corn and is focused on producing ethanol to meet the nation's needs for domestic transportation fuels.

### **Corn Ethanol – The Foundation**

Corn ethanol is the foundation of the renewable fuels industry and has grown to be the most significant source of renewable energy that is powering America. Today, if the U.S. ethanol industry were a foreign oil producer, only Canada would supply the U.S. with more gasoline.

POET continues to see more opportunities to expand the production of ethanol from corn and improve the production process. Grain yields, which have doubled over the past 50 years to more than 160 bushels per acre, are expected to double again over the next 20 years. Those higher yields would generate an additional 13 billion bushels of corn, without planting a single additional acre. Ethanol is the only growing market for that additional supply of corn.

POET is continually making the production of corn ethanol more efficient and environmentally friendly. Since we were founded 22 years ago, our energy and water use per gallon of ethanol has decreased by 50 and 80 percent, respectively. Because ethanol production is a biological process, the opportunities to improve efficiency in the future are limitless. To that end, we recently announced plans to decrease our water use an additional 22 percent by 2014 and will soon announce an energy reduction goal.

We are also replacing natural gas with alternative energy at our biorefineries. One example is our nearby plant in Chancellor, S.D. which uses waste wood and landfill gas for more than 60% of the plant's power. Three of our plants use co-generation and another is powered by an anaerobic digester. We are constantly looking for opportunities to expand the use of alternative energy at all of our facilities.

### **Commercialization of Cellulosic Ethanol**

Early on, POET saw the potential of cellulose – the most common organic compound on Earth – to drastically increase the amount of ethanol in America's fuel system. For at least a decade, we have pursued commercialization of cellulosic ethanol, investing time, staff and tens of millions of dollars for research that includes our pilot facility in Scotland, S.D.

Those efforts are about to pay off as we break ground this year on Project LIBERTY in Emmetsburg, Iowa. Project LIBERTY is a 25 million-gallon-per-year cellulosic ethanol plant co-located at the site of our existing grain-based ethanol plant. Each day, it will process 770 dry tons of material – mainly corn cobs with some “high-cut” crop waste – into ethanol. It will also use the by-product lignin to power both the cellulosic ethanol plant and the adjacent grain-based ethanol plant, cutting fossil fuels out of the ethanol production process. We have enjoyed a great partnership with the Department of Energy and the state of Iowa in this endeavor and plan full production in early 2012.

This is an economic windfall for rural communities across the country. Our *one* plant in Emmetsburg will generate \$12 million annually just from purchasing crop waste from the 450 or so farmers with whom we will work.

Most of these farmers will buy one or two new pieces of equipment. With a conservative estimate of \$50,000 for each piece of equipment, this would drive sales of more than \$20 million. One new dealership has already announced it will open in Emmetsburg in response to the new customers for Project LIBERTY.

But the jobs this will provide are probably its greatest benefit. Our plant will directly employ 40-50 workers, with another 180 indirect jobs in areas such as equipment sales, biomass transport, the service industry and more. On top of that there will be about 300 jobs for construction of the facility.

This is all from one plant, but POET envisions a much more ambitious future for the cellulosic ethanol industry. By 2022, we will be responsible for 3.5 billion gallons of production nationwide. Taking the impact of that one 25 million-gallon plant and multiplying it out for 3.5 billion gallons will produce almost unprecedented economic growth for rural America.

POET's specific plan is composed of three parts:

- 1 billion gallons from expanding production to POET's network of 26 plants today
- 1.4 billion gallons from licensing the technology to other grain ethanol producers
- 1.1 billion gallons from other feedstock that we feel will be adaptable to our technology

There are obstacles to realizing that lofty, but achievable goal. Cellulosic ethanol faces many of the same challenges the grain-based ethanol industry is facing. But specific to the cellulosic

ethanol industry is the need for loan guarantees to get this important process off the ground. Lenders are hesitant to invest in new technology, and the first few plants will need assistance securing capital so that the industry can prove itself. In addition, there must be a long-term extension of the cellulosic ethanol production credit, which is set to expire in 2012. This credit also needs to be made refundable.

POET's plan is part of an even larger cellulosic ethanol picture. The previous 'Billion Ton Study' illustrates we have the opportunity to produce ethanol in all 50 states. (Additional details in Exhibit 2) If committed, our country can realize our 2022 vision of 36 billion gallons of renewable biofuels.

### **Farmer involvement crucial**

But cellulosic ethanol can only be produced if we get farmers to deliver the cellulose. This often requires unfamiliar crops and farming techniques for America's agricultural industry. Ethanol producers and government agencies have to partner with farmers to navigate this new territory.

POET's process is unique in that it takes advantage of a crop – corn cobs – that already grows as part of normal farm operations. But incorporating a new harvest into farmers' busy schedules involves risk, and we must instill confidence in farmers harvesting biomass for the first time.

The current Biomass Crop Assistance Program (BCAP), which provides matching funds for delivered biomass, is a great model for helping mitigate that risk to encourage broad participation.

- It helps farmers secure credit for equipment purchases by showing income for their commitment.
- It helps the ethanol producer operate with lower feedstock costs during the expensive start-up period.
- It provides an incentive to attract more farmer participants.

- It offsets start-up costs for farmers harvesting biomass for the first time.

Unfortunately, the program expires with the farm bill after the 2012 harvest, just as POET and other cellulosic ethanol producers are ramping up production to full-scale. We ask that lawmakers give farmers security in starting this new endeavor by granting a long-term extension for the program.

We need USDA to act quickly in releasing the final BCAP rules. POET must apply and be approved before our farmers can apply and be approved. That means it is almost impossible to get farmers involved in our 2010 harvest. Farmers would also like to submit previous biomass harvests for matching funds under the program.

It is crucial that BCAP be part of the next farm bill. Matching payments could be reduced to \$15 per ton in return for doubling the length of commitment to four years. Also, the program could be focused strictly on feedstock for use in biofuels.

BCAP is an effective program that will strengthen the feedstock side of cellulosic ethanol production. By extending the program and making some minor adjustments, you can solidify the American farmer's role in clean fuel production.

### **Ethanol industry challenges**

Despite our country's commitment to renewable fuels and the obvious problems caused by our addiction to oil, a number of challenges currently face the ethanol industry. The most prominent of these is a lack of market access that has stunted development and cut off investment. The small market that exists for ethanol in the U.S. today has led to an oversupply, which is why ethanol is currently pricing significantly below gasoline.

The restricted market opportunity is the result of a decades-old, arbitrary law limiting ethanol to ten percent of the gasoline used in standard vehicles and the relatively slow adoption of flex fuel vehicles. Consequently, ethanol is limited to ten percent of the gasoline supply, which is commonly referred to as the “blend wall,” and the U.S. has a 90% mandate for oil.

With current annual gasoline use in the U.S. at approximately 140 billion gallons, the ten percent market is 14 billion gallons. However, it’s not realistic to penetrate every single gallon, so experts predict the blend wall to be around 12.5 billion gallons. Our industry has crashed into this wall – as current ethanol production capacity is approximately 13.5 billion gallons.

For the cellulosic ethanol industry needs a market in order to grow and that market doesn’t exist today. Two things need to happen to create that market.

The first is to increase the base blend of ethanol in standard vehicles from 10 to 15 percent, which will temporarily move the blend wall further into the future. The U.S. Environmental Protection Agency (EPA) is reviewing a waiver submitted by POET and other ethanol producers asking for such an increase and is expected to rule this summer. That small increase in ethanol content for standard vehicles is supported by academic, industry and government research and would allow the ethanol industry room to grow in the near future.

It would also allow time for the second step necessary for creating a larger market for ethanol; building an infrastructure for the use of higher ethanol blends. The proliferation of flex fuel vehicles (FFVs) and blender pumps has not been fast enough to drive significant ethanol demand. More FFVs and blender pumps would allow the consumer to choose their preferred blend rate – from no ethanol to 10, 20, 30, 40 or 85 percent – and drive greater use of ethanol, especially today when it is attractively priced.

In addition to giving the consumer greater choice, an expanded ethanol market will give investors and lenders the confidence they need finance cellulosic ethanol production. Without a higher base blend, there is no place for the first gallons of cellulosic ethanol to go. Without a higher blend infrastructure, there is no opportunity to use the billions of gallons we will produce in the future.

### **Role for Policy-Makers**

As you can see, POET has made a significant commitment to the production of cellulosic ethanol. You can also see that there is a significant role for policy-makers before the work of POET and others can change our nation's transportation fuel supply. Specifically, government must do the following:

1. Increase the base blend allowed in today's standard vehicles. The 10% blend wall has halted investment in and development of ethanol. Moving to a 15% blend would open the market and allow ethanol some room to grow in the short term.
2. Mandate that all new vehicles purchased in the U.S. are FFVS. The cost to make a new car flex fuel is minimal and the potential benefits to consumers are significant. Because it takes 17 years to convert our automobile fleet, we can't afford to delay this any longer. Without this step, it will be virtually impossible to utilize the gallons mandated by the Renewable Fuel Standard.
3. Incentivize the installation of blender pumps throughout the nation. Without the pumps to dispense higher blends of ethanol, increased numbers of FFVS will have little impact. Blender pumps would provide the needed infrastructure, while giving the consumer the ultimate choice of their ethanol blend. We need to allow the American consumer to

choose his or her fuel blend based on performance and price.

4. Support cellulosic development. In addition to providing market access for cellulosic ethanol, there are three important provisions which policy-makers need to address:
  - a. Help the first cellulosic ethanol production facilities to obtain loan guarantees.
  - b. Grant long-term extension of the cellulosic ethanol tax credit
  - c. Provide longer-term assistance and incentives for farmers who want to produce biomass for cellulosic ethanol production.

We still face an energy crisis. A 90 percent mandate for gasoline in our nation's vehicle fleet ensures that oil's hold on our country's economic fortune is strong. But thanks in part to a bold vision in Washington for a renewable energy future, the ethanol industry has become larger and more efficient each year, a growing challenge to the oil industry's dominance.

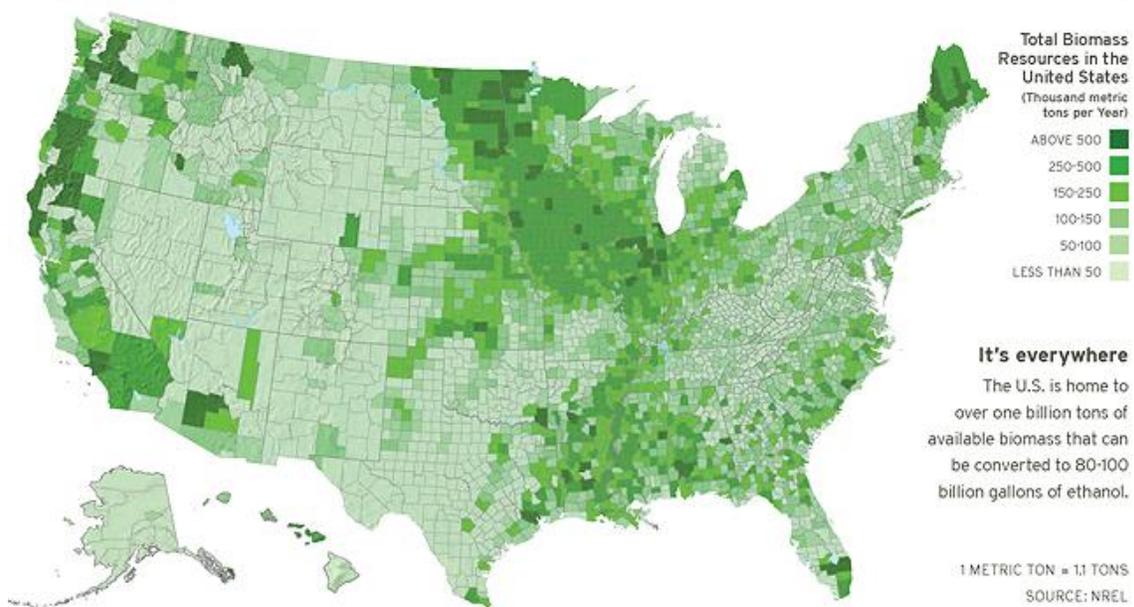
With your help, we can continue this progress. We have the natural resources, the ingenuity and the technology to reach our nation's goal of 36 billion gallons of renewable fuel produced per year by the year 2022.

Thank you for the opportunity to testify today. On behalf of POET and the entire renewable fuels industry, we thank you for the hard work and past support that is truly making a difference in our nation's energy supply.

Exhibit 2:

- Realistic POET biofuels production targets, and our estimates of industry-wide targets (POET announced 3-point approach to achieve 3.5B gallons of cellulosic biofuels)
- POET's vision (world's largest ethanol leading the activity)
  - 1.0B gal from POET Plants
  - 1.4B gal from non-POET plants located in the corn belt
  - 1.1B gal from non-corn based feedstocks
- 50-state solution:
  - Feedstock & geographically driven
  - POET technology is transferrable to other feedstock (ie: the 50 state solution)

## The '50-State' Solution



**Committee on Agriculture  
U.S. House of Representatives  
Information Required From Non-governmental Witnesses**

**House rules require non-governmental witnesses to provide their resume or biographical sketch prior to testifying. If you do not have a resume or biographical sketch available, please complete this form.**

1. **Name:** *Scott Weishaar*
2. **Business Address:** *4615 North Lewis Avenue*  
*Sioux Falls, SD 57104*

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3. **Business Phone Number:** *605.965.2396*

4. **Organization you represent:** *POET*

5. **Please list any occupational, employment, or work-related experience you have which add to your qualification to provide testimony before the Committee:**

*I am the VP of Commercial Development for POET, the world's largest corn ethanol producer. I have 20+ years of business development and market growth activities. My focus is concentrated on the development of a sustainable feedstock/biomass supply chain and associated logistics for cellulosic ethanol and biofuel facilities.*

6. **Please list any special training, education, or professional experience you have which add to your qualifications to provide testimony before the Committee:**

*I have a BA in finance and management from the University of Northern Iowa and a MBA from The Ohio State University. Born and raised on a farm in NW Iowa with ongoing communication with the farming community; I have first-hand interaction with this vital, rural segment.*

7. **If you are appearing on behalf of an organization, please list the capacity in which you are representing that organization, including any offices or elected positions you hold:**

*VP of Commercial Development for POET*

**PLEASE ATTACH THIS FORM OR YOUR BIOGRAPHY TO EACH COPY OF TESTIMONY.**

**Committee on Agriculture  
U.S. House of Representatives  
Required Witness Disclosure Form**

**House Rules\* require nongovernmental witnesses to disclose the amount and source of Federal grants received since October 1, 2007.**

**Name:** Scott Weishaar

**Address:** 4615 North Lewis Avenue Sioux Falls, SD 57104

**Telephone:** 605.965.2396

**Organization you represent (if any):** POET

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- 1. Please list any federal grants or contracts (including subgrants and subcontracts) you have received since October 1, 2007, as well as the source and the amount of each grant or contract. House Rules do NOT require disclosure of federal payments to individuals, such as Social Security or Medicare benefits, farm program payments, or assistance to agricultural producers:**

**Source:** n/a **Amount:** \_\_\_\_\_

**Source:** \_\_\_\_\_ **Amount:** \_\_\_\_\_

- 2. If you are appearing on behalf of an organization, please list any federal grants or contracts (including subgrants and subcontracts) the organization has received since October 1, 2007, as well as the source and the amount of each grant or contract:**

**Source:** n/a **Amount:** \_\_\_\_\_

**Source:** \_\_\_\_\_ **Amount:** \_\_\_\_\_

**Please check here if this form is NOT applicable to you:**   √   \_\_\_\_\_

**Signature:** \_\_\_\_\_

*\* Rule XI, clause 2(g)(4) of the U.S. House of Representatives provides: Each committee shall, to the greatest extent practicable, require witnesses who appear before it to submit in advance written statements of proposed testimony and to limit their initial presentations to the committee to brief summaries thereof. In the case of a witness appearing in a nongovernmental capacity, a written statement of proposed testimony shall include a curriculum vitae and a disclosure of the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by the witness or by any entity represented by the witness.*

**PLEASE ATTACH DISCLOSURE FORM TO EACH COPY OF TESTIMONY.**