



**Statement Of
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**Before the
Energy & Commerce Subcommittee on Energy & Air Quality**

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Preamble:

Mr. Chairman and distinguished committee members, thank you for the opportunity to visit with you today. My name is Denny DeVos. I am Director of Corporate Finance for POET. I would like to talk with you today about challenges and opportunities to utilize loan guarantees when financing cellulosic and other innovative renewable energy projects.

POET – INTRODUCTION

POET, headquartered in Sioux Falls, South Dakota, is the largest dry mill ethanol producer in the United States. POET, formally Broin Companies, is an established leader in the bio-refining industry through project development, design and construction, research and development, plant management, ownership, and product marketing. The 20-year old company has built twenty-five (25) ethanol production facilities and currently manages nineteen (19) plants in the United States while marketing more than one billion gallons of ethanol annually.

Since 2000, POET Design and Construction, formally Broin and Associates, has constructed nineteen (19) green field ethanol plants in five (5) states and completed five (5) major expansions of existing facilities. The value of our design build contracts since 2000 has exceeded \$900,000,000. Additionally, four (4) green field projects of similar size and scope are currently under construction with several others in development. Each project has been successfully designed, built and managed by POET. These projects have resulted in the addition of 875 millions of gallons per year (MGPY) of new fuel ethanol capacity.

The POET development model is unique. It started on the Broin family farm in Minnesota and has spurred the growth of investment by thousands of farmers and individual main street investors. POET's business model is to invest in, develop, design, construct and manage ethanol production facilities called Premier Partner Plants. However, the facilities are independent limited liability companies (LLC) owned primarily by individuals and local farmers that provide the corn feedstock. POET employs the facilities general manager and on-site technical engineer. All other employees are employed by the LLC. POET also has Board of Director representation at each plant.

By leveraging business size and position, POET has created the most successful and profitable ethanol facilities in the industry. POET has achieved breakthrough progress beyond ethanol processing, extracting extraordinary new value from each kernel of corn.

COST OF CONSTRUCTION

Just 10 years ago, most ethanol plants' capacity was 10 – 15 MGPY. POET's first plant was 1 MGPY and was one of the largest in operation at the time. Traditional ethanol plants were built in corn producing states which put incentives in place to stimulate investment by farmers and other local main street investors. Incentives stimulated

development of an industry at a time when new interest was sparked by technology advancements. Public policy, which was driving these incentives, was sparked by the oil crisis in the 1970's and the clean air initiatives that followed. The cost per gallon to build and fund working capital for these plants was approximately \$1.75 per gallon or a total of \$20 - 25 million dollars.

Those plants are small by today's standards. Most dry mill ethanol facilities are now designed at 50 – 125 MGPY capacity. The cost of an ethanol plant project just five years ago was ~\$1.20 per gallon capacity. Today, the design and construction costs exceed \$2 per gallon, reaching upwards of \$250,000,000 to \$300,000,000 or more to deliver a completed project. The significant increase is due to inflation of construction materials and labor. Most notably are stainless steel, concrete, other metals and qualified, skilled, manpower.

Due to additional storage, feedstock and waste handling, and pre-treatment equipment, the cost to expand an existing facility to a cellulosic ethanol facility is approximately 100% greater than a traditional corn-to-ethanol facility. Project LIBERTY, POET's commercial cellulose project for converting corn fiber and corn cobs to ethanol, will expand an existing 50 MGPY traditional corn-to-ethanol plant in Emmetsburg, IA to a 125 MGPY bio-refinery that will produce 25 million gallons of ethanol from corn stover and fiber from the corn kernel. POET was fortunate to be selected as the recipient of a DOE grant for up to \$80 million to support Project LIBERTY. In addition to producing 27% more ethanol from an acre of corn, Project LIBERTY will reduce the natural gas needs to operate the 125 MGPY plant by 83% and utilize 23% less water. Expansion costs to an existing facility are projected in the range of \$4.00 per gallon expanded capacity. A cellulose facility designed and constructed on a "green field" site would be substantially greater due to utility and product handling infrastructure.

The following table depicts the design and construction costs (\$) per gallon of plant capacity:

Corn-to-Ethanol Facility 1995	Corn-to- Ethanol Facility 2000	Corn-to-Ethanol Facility 2007	Cellulose-to-Ethanol Expansion Facility 2009
\$1.75 - \$2.00	\$1.15 - \$1.35	\$2.00 - \$2.25	\$4.00 +

As technology develops and the cellulosic ethanol industry matures, the cost of construction is predicted to go down as long as the materials of construction do not inflate at a greater rate.

Historically, the majority of financing for ethanol plant construction has been accomplished using local individual investment and bank debt financing provided through the farm credit system and a few other Midwestern lending groups. All POET projects have a strong local farmer investment component, which promotes not only delivery of corn to the plant but ownership as well.

In terms of financing cellulose-to-ethanol production facilities, success will be achieved using new cellulosic processing technology. To achieve production at commercial volumes, we believe the use of properly designed loan guarantee programs will be absolutely necessary to attract investors, creditors and banks. The involvement of these groups is essential in supporting rapid development of these new, evolutionary cellulosic technologies. To better position the Department of Energy in its loan guarantee program we believe a review of the challenges we see with the programs POET has considered is of value.

CURRENT FEDERAL LOAN GUARANTEE PROGRAMS

POET has considered utilizing the three (3) programs below:

- DOE Loan Guarantees for Projects that Employ Innovative Technology in Support of the Advanced Energy Initiative
- USDA Business and Industry
- USDA Renewable Energy Systems and Energy Efficiency Improvements Guarantee program

POET has not utilized any of the above loan guarantee programs due to the challenges detailed in the next few paragraphs.

Department of Energy (DOE) Loan Guarantees for Projects that Employ Innovative Technology in Support of the Advance Energy Initiative

While POET has submitted a pre-application to guarantee a \$137 million loan under this program for construction of a cellulosic ethanol facility, we see the following challenges to a successful final application and issuance of a loan guarantee:

- §1702(g)(2)(b) requires, with respect to any property acquired pursuant to a guarantee, “the secretary” shall be superior to the rights to any other person with respect to the property. This statutory provision requires DOE to possess a first lien priority in the assets of the project and other collateral security pledged. Therefore any holders of non-guaranteed debt have a subordinate claim to the DOE in the event of default and will not receive payment on their debt until the DOE is paid in full. Since the need for a guarantee is a result of a lender’s perceived higher risk, when compared to other lending opportunities, it will be difficult, if not impossible to obtain commitments for the un-guaranteed portion of the loan, due to the un-guaranteed portions’ subordinate position.
- The guaranteed portion of the loan must not be separated from, or stripped from the un-guaranteed portion of the loan, or sold in secondary debt markets. To meet this requirement, the lender that originated the guarantee is required to hold the un-guaranteed loan. It is highly probable that a lenders risk appetite, at least one who is willing to do a guaranteed loan, is much different than a lender who focuses on the subordinated debt

market. Since the originating lender is required to hold both types of debt, it will be difficult, if not impossible to find a lender to hold both portions of the loan.

- Delays in processing our application may cause delays in start-up and delays in the commencement in construction of the project.
- The guaranteed loan cannot be subordinate to other debt. In some cases the new loan is for expansion of an existing facility with prior debt that is still outstanding.
- Payment of fees to cover administrative cost for DOE issuing the guarantee, servicing and monitoring costs of the DOE, and normal fees charged by the originating lender, are a significant challenge for a start-up or expanding company.
- The subsidy cost of the expected liability to the federal government from issuing the guarantee, which is the estimated net present value at the time the guaranteed loan is dispersed, is an extreme burden to a start-up or expanding company. The liability would be a result of default payments made to the originating lender on the loan, due to lack of payment by the company from cash-flow or liquidation of the collateral. The subsidy cost is wholly distinct and separate from fees for issuing and servicing the loan guarantee. The subsidy fee can either be an appropriation by congress or payment by the borrower.

At present, it is our understanding that the borrower is expected to make this payment and no appropriation has been made. Since we do not intend to bring a project that we do not expect to be successful, we do not feel a subsidy payment should be required. Should the DOE, through their analysis, require an upfront cash subsidy payment, this undo burden may keep the project from moving forward.

United States Department of Agriculture (USDA) Business and Industry Loan Guarantee Program

- The Maximum Loan amount of \$25 million is too low. Most renewable energy projects are now of a capacity in excess of 50 million gallons, with total project costs in excess of \$100 million (current facilities cost \$2.00 - \$2.25 per gallon to construct).
- Loans greater than \$5 million require national office approval. (Due to the seasonal nature of construction in cold climates, if the time to receive a commitment for guarantee is lengthy, the project could be delayed for a full year.)
- The percent of the loan guarantee diminishes to 60% for loans greater than \$10 million. Lending institutions see almost no value in a guarantee at the 60% level.
- When adding the potential one-time 2% fee and the annual renewal fee for a guarantee to a lender's typical cost, the total financing costs are excessive and very challenging for an expanding or start-up company.
- Since in most circumstances ownership is by a large group of rural investors, personal and corporate guarantees are not possible.

- If the guarantee is contingent upon successful start up, performance guarantees and no substantial deterioration in financial position, limited or no-value will be given to the guarantee by a lender considering financing for the project.

USDA Renewable Energy Systems and Energy Efficiency Improvements Loan Guarantee Program

- Loans cannot exceed 50% of total project costs.
- The maximum loan amount is \$10 million. This is too low. (Current ethanol facilities cost \$2.00 to \$2.25 per gallon to construct with most project scopes being in excess of 50 million gallons.)
- Loans greater than \$5 million can only be guaranteed for a maximum of 70%. (This results in a maximum of 35% of the total project cost being guaranteed. Fifty percent of the total project costs times 70%.) This provides no value to the lender.
- Loans greater than \$5 million require national office approval. (Due to the seasonal nature of building in cold climates, if the time to receive a commitment for loan guarantee is lengthy, the project could be delayed for a full year.)
- The one-time 1% guarantee fee and annual renewal fee along with typical lender fees result in total financing costs that are very challenging for a start-up or expanding company.
- Personal and corporate guarantees are not possible due to the large number of investors and the need to treat investors equally regardless of percent ownership.

Loan Guarantee Program Recommendations

The \$2 billion DOE loan guarantee program targets broad renewable energy initiatives. Federal loan guarantee programs will be essential to commercialize cellulosic ethanol plants until technology is proven and the industry is matured to a point where conventional lending is feasible.

As outlined above, we have found challenges with the proposed DOE as well as the past USDA programs: USDA Business and Industry Loan Guarantee Program, USDA Renewable Energy Systems and Energy Efficiency Improvements Guarantee program, and DOE Loan Guarantees for Projects that Employ Innovative Technology in Support of the Advance Energy Initiative. An enhanced program that draws from aspects of all three programs, we believe, would be acceptable to the lending community and significantly increase investments in new technologies that will enable renewable fuels to replace our dependence on imports of fossil fuels.

The following are specific recommendations for a proposed federal loan guarantee program supporting the Advanced Energy Initiative:

Eligible Areas

- Projects that employ innovative technologies for renewable energy and energy efficiency.
- Loans can be guaranteed in cities with a population of up to 50,000.
- Priority given to applications for working in rural communities of 25,000 or less.

Eligible borrowers

- Any legal entities, including individuals, public and private organizations and federally recognized Indian Tribal groups may borrow.
- There is no size restriction on the business.

Benefits to the business:

- Assist in bringing new technology to commercial scale much sooner.
- Assist in deploying new technology on a broad scale faster.
- Higher loan amounts, stronger loan application, less equity injection, lower interest rates, and longer repayment terms assist businesses that may not qualify for conventional lending or financing.
- Assist business in stability, growth, expansion, and rural development.

Eligible Lenders

Most lenders are eligible, including national and state chartered banks, farm credit system banks, and savings and loan associations. Other lenders, such as insurance companies and mortgage companies may be eligible if approved by USDA.

Benefits to Lenders

- Provide lenders with another tool to expand their loan portfolio.
- Improve the economic and environmental living climate in rural communities.
- Guaranteed and or/un-guaranteed portion can be sold to enhance liquidity and increase profitability while limiting financial exposure.
- Allows lender to make loans above its loan limits.

Eligible Project Costs

- Cost of acquisition, lease or rental of real property, including engineering fees, surveys, title insurance, recording fees, and legal fees incurred in connection with land acquisition, lease or rental, site improvements, site restoration, access roads and fencing.
- Engineering, architectural, legal, and bond fees, and insurance paid in connection with construction of the facility and materials, labor, services, travel and transportation for facility construction start-up and test.
- Equipment purchase and start-up testing.
- Cost to provide equipment, facilities, and services related to safety and environmental protection.

- Financial and legal services and costs, including other professional services and fees necessary to obtain required licenses and permits and to prepare environmental report and data.
- Interest cost and other normal charges affixed by lender.
- Necessary and appropriate insurance and bonds of all types.
- Costs of start-up and commissioning.
- Cost of obtaining licenses to intellectual property necessary to design, construct and operate the project.
- Machinery, equipment and storage facilities to support the collection and storing of raw materials for the production of cellulosic ethanol.
- Other necessary and reasonable cost approved by the Secretary.

Maximum Loan Amount

Loans would be limited to a maximum of \$200 million per borrower. Loans greater than \$10 million require national office concurrence.

Loan Guarantee Limits

\$160 million (80% of \$200 million) It is important for all parties involved in financing or owning renewable energy projects to have something at risk, therefore, POET does not support a 100% loan guarantee.

Loan to Appraise Market Value Ratios

- 80% Real Estate
- 75% receivables
- 75% inventory
- 80% machinery and equipment

Interest Rate

Interest rates for loans may be fixed or variable. The rate is negotiated between the lender and borrower and will not be more than those rates customarily charged to other borrowers in similar circumstances. The variable rate must be tied to a nationally published rate. Variable rates cannot be adjusted any more than every 30 days.

Borrower Equity Requirements

A minimum of 15% tangible balance sheet equity is required for exiting business. A minimum of 25% tangible balance sheet equity is required for new businesses. Personal and corporate guarantees are not required. Tangible balance sheet equity will be determined accordance with generally accepted accounting principles (GAAP).

Maximum Repayment Terms

- Working capital – 7 years
- Machinery and equipment – 10 years or useful life
- Real estate – 20 years
- Combination real estate, machinery and equipment – 15 years

Fees and Costs

No subsidy costs should be assessed for potential future costs to the federal government for making payments due to lack of cash-flow or if upon liquidation, the proceeds received do not fully repay the loan. A one-time guarantee fee not to exceed one half of 1% of the guarantee principle amount along with an annual renewal fee not to exceed one tenth of 1%. It is our belief that a subsidy payment by the borrower defeats the purpose of a guaranteed loan program. Other typical lender costs may also be incurred.

Appraisals and Appraisal Report

Appraisals and appraisal report prepared by an independent, qualified fee appraiser will be required on property that will serve as collateral. Appraisals will be made in accordance with the accepted format and standards of the industry.

Collateral

All collateral pertaining to the specific project supported by the guarantee shall secure the entire loan. Repayment of the loan must be reasonably assured. Personal and corporate guarantees are not required.

Loss Sharing

In the event of default if the liquidation of the collateral or cash-flow payments do not repay the guaranteed and un-guaranteed portions of the loan, shortages would be shared on a pro-ratio basis, 80% of the shortage being paid by the guarantor and 20% of the shortage being covered by the holder of the unguaranteed portion of the debt.

Loan Covenants/Conditions

Normal and customary commercial lending covenants that are reasonably acceptable to financial institutions. Contingencies of issuing the guarantee based on successful completion and start-up of the project without financial deterioration are not acceptable. A clause of this type will eliminate the value to a lender since the lender must commit the loan prior to commencing construction or expansion. The lenders greatest risk is during construction and start-up.

Report

Once the project has been constructed, the lender must provide the agency annual financial reports from the borrower.

Servicing Liquidation

Knowledgeable and adequate staff resources are essential to providing prompt response to loan guarantee applications and ongoing loan servicing requests.

Annual financial statements should continue to be required. Lender services and liquidates with appropriate agency concurrence.

SUMMARY

POET is honored to testify to the Energy & Commerce Subcommittee on Energy & Air Quality. On behalf of the renewable fuels industry, we applaud the Department of Energy's efforts in supporting the Advanced Energy Initiative through loan guarantees. Without the enhancements to the loan guarantee program as previously outlined, the industry would have difficult, and in some cases impassable, financial barriers to conduct research and development, validate, and commercialize renewable fuels technology, particularly cellulosic ethanol.

Thank you for the opportunity to submit recommendations. POET looks forward to working in partnership with the Congress and the administration to reach the national goal of 35 billion gallons of renewable fuel produced per year by the year 2017.