FULL COMMITTEE HEARING ON THE IMPACT OF RENEWABLE ENERGY PRODUCTION IN RURAL AMERICA

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UNITED STATES HOUSE OF
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FULL COMITTEE HEARING ON THE IMPACT OF RENEWABLE ENERGY PRODUCTION IN RURAL AMERICA

THURSDAY, MAY 3, 2007

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON SMALL BUSINESS,
Washington, DC.

The Committee met, pursuant to call, at 10:00 a.m., in Room 2360 Rayburn House Office Building, Hon. Nydia Velázquez [Chairwoman of the Committee] presiding.

Present: Representatives Velázquez, Jefferson, Shuler, Larsen, Cuellar, Braley, Clarke, Sestak, Chabot, Bartlett, Heller, Buchanan and Jordan.

OPENING STATEMENT OF CHAIRWOMAN VELÁZQUEZ

ChairwomanVELÁZQUEZ. I now call this hearing to order.

Today we are going to examine the issue of renewable fuels and their impact on small businesses in rural America. Entrepreneurs in this country have a huge stake in ensuring access to an affordable energy supply. Their bottom line is affected every time prices go up at the pump, natural gas spikes, or the cost of electricity rises. Today we will hear that small businesses are not only consumers of energy, but they are also playing a vital role in producing it.

At a time when this country is facing record energy prices, it is critical that we find alternative energy supplies to help reduce costs as well as foreign dependence. Today's panelists will outline how rural America is achieving this with the production of biofuels. The growth in the renewable fuels industry has been a win-win for the U.S. economy. Biofuels have had an enormous impact on rural communities while helping provide this nation with another source of clean energy.

It is an industry that small companies are at the forefront. Approximately 70 percent are small firms with most employing less than 50 people. These small businesses are not only growing themselves, but they are helping other entrepreneurs in rural America. Small farmers are providing the necessary inputs for the production of these fuels.

For ethanol, farmers provide the 2.5 billion bushels of corn each year. In the biodiesel industry, they supply the soybeans, canola, and other inputs. And they are also working to develop resources in the growing area of cellulosic ethanol. As a result, all of these have increased the demand for farmers' products.

The industry has also had a lasting imprint on the economic picture in rural America. A February 2007 study points out that 163,000 new jobs were created because of ethanol production. This includes more than 20,000 jobs in our manufacturing sector, making biofuel production the single-most important value-added market for farmers.

But while the growth in this industry has been strong, challenges remain. Because producing biofuels involves high-cost inputs, it has been necessary to have in place federal policies that make plans financially viable. These range from tax incentives and trade policies to usage requirements and financing assistance. Without these incentives and programs the industry would not be where it is today.

With all this success, we still have a long way to go. Though renewable fuels have grown exponentially over the past decade, they still make up less than 1 percent of current U.S. production. My hope is today's hearing will focus on ways that this can be increased.

Whether it be the new and improved energy programs or maintaining existing ones, we need to do what it takes to ensure small businesses in these areas will have the chance to thrive.

The issues discussed today affect every member's district. While it may seem that there is no connection between an ethanol plant in Iowa and the price of gas in New York, the economics shows otherwise. Biofuels impact those in urban districts and rural districts alike. Today's hearing will provide the Committee with a better understanding of the biofuel industry from those who understand the challenges the most.

I look forward to hearing about what policies have been successful and if there are additional reforms needed to ensure future growth. The success of small companies in this sector can serve as a model for other industries. The Committee can draw on this as it formulates legislation to improve the overall economic environment for small businesses.

I appreciate the witnesses coming here to talk about these important issues, and I look forward to today's discussion. I now yield to Mr. Chabot for his opening statement.

OPENING STATEMENT OF MR. CHABOT

Mr.CHABOT. Thank you, Madam Chairwoman, and I want to commend you for holding this timely hearing on renewable energy production and its impact on rural America and its impact on the entire country. I also want to thank our panel of witnesses for traveling here to Washington to share your views with us.

In recent years, it has become painfully clear that America is far too dependent on foreign oil. We import nearly two-thirds of the oil that we consume. With gas prices in my district in Cincinnati and throughout the country hovering around $3 a gallon again, it is important for Congress to continue exploring ways that we can produce more of our energy domestically rather than relying on oil from the volatile Middle East or in other parts of the country, other parts of the world.

In fact, according to the General Accounting Office, GAO, Americans paid $38 billion more for gasoline in the first six months of

2006 than they paid during the first half of 2005. That is just unacceptable, and there is no reason to think that trend won't continue.

I believe that America must adopt a diversified and balanced energy strategy to become more self-sufficient, and I have supported, as many of us have, policies such as the Energy Policy Act of 2005, that took significant steps in that direction. For example, I believe we should increase our production of traditional fuels such as oil and natural gas and strengthen conservation and efficiency efforts.

It is also important to provide incentives for the research and development of promising new technologies such as hydrogen fuel cells. And, as we will hear today, renewable energy, the vast majority of which is produced in our nation's rural communities, is serving an important role in meeting America's energy needs as well.

Biofuels have the potential to help wean Americans off foreign oil and to provide an economic boost to farmers and rural communities. I believe they also have the potential to foster a serious and long overdue debate about reforming our nation's agriculture policy, which, in my view, with its subsidies and tariffs is in dire need of reform.

Again, I thank the chair for holding this hearing and look forward to hearing testimony from our witnesses. And I yield back the balance of my time.

ChairwomanVELÁZQUEZ. Thank you, Mr. Chabot.

If there is any other member who wishes to make an opening statement? Yes, Mr. Bartlett.

OPENING STATEMENT OF MR. BARTLETT

Mr.BARTLETT. Thank you. If I might, I want to thank you very much for holding this hearing. There are several groups that have common cause in the subject that we are discussing today. Several weeks ago T Boone Pickens joined a growing chorus of professionals who believe that the world has reached its maximum production of oil, that it will stabilize for a bit, and then actually really go downhill. It is called "peak oil."

Just recently more than 100 countries agreed that we have global warming, that excessive consumption of fossil fuels is very largely a major contributor to that. A couple of years ago—and this was mentioned by the minority member—30 prominent Americans wrote to the President saying, "Mr. President, the fact that we have only 2 percent of the known reserves of oil in the world, we use 25 percent of the world's oil, and we import almost two-thirds of what we use, is a totally unacceptable national security risk. We really have to do something about that."

And the subject of this hearing today is front and center in the interest of these three groups. So thank you, Madam Chairman, very much for holding this hearing.

ChairwomanVELÁZQUEZ. Thank you.

Now I recognize Mr. Jefferson.

OPENING STATEMENT OF MR. JEFFERSON

Mr.JEFFERSON. Thank you, Madam Chair, very briefly. And I thank you for holding this hearing, and I thank the others who have spoken to the issue.

The American people gave us a clear mandate to diversify energy resources, reduce our trade balances and—imbalances, I should say—and address our environmental challenges and make our economy more competitive. We all know that it will not happen if we are not serious about using more alternative and renewable sources of energy. The only concrete way to do this is to incentivize the sector, so that it will create more opportunities for our farmers, for our small businesses.

Many states are experimenting with opportunities in this area, and I think there is a need to find some way to harmonize these efforts and to make sure that there are opportunities that exist throughout the country that are consistent. Our state, for example, has a biodiesel mandate that establishes a minimum biodiesel requirement for diesel fuel in the state. Once annualized production volume reaches 10 million gallons, 2 percent of the total diesel sold by volume in the state must be biodiesel produced from domestically-grown feedstock.

Louisiana's first biodiesel plant started operating in April of 2006 and has produced about 700,000 gallons of biodiesel so far. That production is expected to increase to 10 million gallons, or maybe 15, even in the next few years. Six biofuel projects are underway with three ethanol and three biodiesel plants, and this is an example of what states are doing but there is no coherent policy that rewards those investors in various parts of the country.

And there isn't any guarantee that—the federal incentives can be much deeper than the ones the state can offer in any event. And so I would urge that we find some way to harmonize this effort across the country and provide opportunities throughout. I think the emphasis has to be on rural small businesses, and I thank the chairlady for offering this important idea and supporting the hearing.

ChairwomanVELÁZQUEZ. Any other member?

Well, now, I want to again welcome all of the witnesses for taking time to come before the Committee and discuss such an important issue with us. Our first witness is Mr. Bob Dinneen. Mr. Dinneen is the President and CEO of the Renewable Fuels Association, the national trade association for the U.S. ethanol industry. As such, he is the ethanol industry's lead representative before the Congress and administration.

Mr. Dinneen became President of RFA in July of 2001. In this capacity, he has led the association's effort to build coalitions with the industry's petroleum customer, as well as transportation and environmental groups in order to provide for marketplace growth for the industry. Welcome, sir.

STATEMENT OF MR. BOB DINNEEN, PRESIDENT AND CEO, RENEWABLE FUELS ASSOCIATION

Mr.DINNEEN. Thank you, Madam Chairwoman, and thank you for holding this hearing. And I want to congratulate you—I am sorry. Do you want me to go now, or do you want to finish—

ChairwomanVELÁZQUEZ. No. I just want to say you will have about five minutes to make your presentation.

Mr.DINNEEN. Thank you. I want to congratulate you for holding this hearing and for recognizing that small business absolutely has a very vital role to play in our nation's energy and economic future.

The ethanol industry today is a very dynamic industry. It is not one that is dominated by large agri-business. It is one, frankly, that is driven by small businesses. Today there are 116 ethanol plants in operation located across 19 different states, but there are 81 plants that are currently under construction that will add another six billion gallons of production capacity to the six billion gallons of production capacity we already have, so that within the next 18 months our industry will be producing more than 12 billion gallons of high-performance, high-octane motor fuel for the nation's public.

Already today ethanol is blended in 46 percent of our nation's fuel. So we are having a significant impact today. But as you noted, renewable fuels, ethanol specifically, is having a growing role and is touching virtually every part of our country.

As I sit here and I look at the panel, Congressman Larsen in Washington, there is a plant under construction in your state. Congressman Shuler, there are plans for as many as six ethanol plants in North Carolina. And one company, Novozymes, a leader in your community, is actually on the cutting edge of technology to produce ethanol from cellulosic materials.

Congressman Jefferson, there is a plant that has been looking to build in Louisiana, producing ethanol from cellulosic materials and will be one of the leaders in the future industry. Even in New York, Madame Chairwoman, there are two plants that are currently under construction and will be in production later on this year or early next.

And, of course, Congressman Chabot in Ohio, there are now five plants under construction, steel on the ground, plant going up next week, there is going to be another groundbreaking in Ohio, there will be six, which will put Ohio among the leaders in terms of plants that are currently under construction. Your state is going to be one of the leaders.

Congressman Bartlett, in Maryland, as you know, there is a plant that is looking to be sited in Baltimore. There is another group out on the Eastern Shore that is looking to produce ethanol, and that will have some real synergies because of the poultry market out there and being able to feed the distiller's dry grain from the plant to the vibrant poultry market out there.

Congressman Heller, I apologize, I have got nothing in Nevada. But I will tell you—

[Laughter.]

I will tell you that Las Vegas uses a heck of a lot of ethanol and is one of the reasons Las Vegas is now in attainment for carbon monoxide. Again, in Texas actually there are more plants under construction in Texas than in Illinois today. That ought to tell you something about where our industry is going. And, in fact, in Texas they are going to be producing ethanol right on a feed lot, and feeding the distiller's grain wet, not having to dry it. It will be a very integrated operation, and the manure from the feed lot is going to run the ethanol plant.

It is absolutely one of the cutting edge technologies in our industry today, and, of course, Congressman Braley, you certainly know a lot about—

[Laughter.]

—the ethanol industry. Iowa is the leader in ethanol production today.

But it is small businesses; these aren't large. Taken as a whole, the single largest ethanol producer in the country is the farmer-owned ethanol plant. It is farmers that are driving this industry today, and it is having a huge impact on our nation's economic security.

The industry last year, which produced five billion gallons of ethanol, added $41 billion to gross output. It was responsible for 160,000 jobs across the country. That is huge. The Secretary of Agriculture, Johanns, a couple of weeks ago had made a comment that, you know, it is relatively easy to create a job in the big cities. Comparatively speaking, it is much more difficult to create a job in rural America, but that is what our industry is doing today.

It is creating jobs in small businesses in a very important industry, and it is revitalizing rural communities. I get to see it all the time.

As President of the association, when I have to go out to grand openings at ethanol plants—and, believe me, they are happening at a fairly rapid pace right now—but I will stand in the middle of a field with 1,000 farmers that have seen a new business come to their community for the first time in a generation, and they know the economic development that is going to occur. And they can feel the excitement; it is palpable.

We have not built an oil refinery in this country in 35 years, but in that time we have built 116 ethanol biorefineries, and we are going to continue to grow. And small businesses are going to continue to be at the forefront of that effort, because they are the ones that are going to embrace the new technologies that are going to lead our industry to be able to produce ethanol from things other than grain, because we know that has to happen.

They are also going to be the ones that will move our industry toward other markets for ethanol—E-85. It will be the small, independent gasoline marketer willing to take a pump and convert it to E-85 as opposed to the major oil companies. So small businesses will be at the forefront of this debate, and I appreciate your leadership.

[The prepared statement of Mr. Dinneen may be found in the Appendix on page 44.]

ChairwomanVELÁZQUEZ. Thank you so much. Quite optimistic overview and passionate.

Mr.DINNEEN. I haven't gotten started yet.

[Laughter.]

ChairwomanVELÁZQUEZ. Our next witness is Mr. Joe Jobe. He is the CEO for the National Biodiesel Board. The NBB is the national trade association representing the biodiesel industry, which serves as the coordinating body for biodiesel research and development in the United States. Its members include feedstock producers and

processors, soybean commodity boards, biodiesel suppliers, and fuel marketers and distributors.

Mr. Jobe has been with the NBB since 1997 and has served as CEO since January 1999. Welcome.

STATEMENT OF MR. JOE JOBE, CEO, NATIONAL BIODIESEL BOARD

Mr.JOBE. Madam Chairwoman, Ranking Member, members of the Committee, thank you very much. It is always a challenge following Mr. Dinneen, and his very enthusiastic and clearly very effective leadership in the ethanol industry. The biodiesel industry is considerably less mature than the ethanol industry. The ethanol industry's tax incentive was passed in 1979. The biodiesel tax incentive was passed in 2004, took effect in January of 2005.

And I am here today to talk about how effective that tax credit has been in stimulating rural development investment in the biodiesel industry. It has been a phenomenon and one that I have been very proud to be a part of. We have benefited from the experience of the U.S. ethanol industry, the challenges and successes, and we have grown very rapidly. And there is heavy investment going on from coast to coast, mostly in rural areas where it is needed most.

I was very impressed by Mr. Dinneen's discussion of how ethanol plants has impacted virtually every member of the Committee present. I will say that biodiesel has as well. Even Nevada—we have biodiesel plants going into Nevada. Texas and Iowa, I did a speech in Iowa last fall where there are so many biodiesel plants either operating or coming online it is absolutely phenomenal. And I told the Iowans that I believe that Iowa is becoming the Texas of renewable energy.

Texas has now surpassed Iowa in terms of production capacity, and I will be darned if Texas hasn't become the Texas of renewable energy. It is phenomenal. It is not a regional phenomenon. It is one that is going on throughout the country.

One of the things that I want to share with you today—I know Mr. Urbanchuk will share with you some of the statistics on the economic impact that the biodiesel industry has benefited to the country. One statistic—the very first priority—our tax credit that has done so much to stimulate—in two years we have built 85 plants throughout the country. With every plant that goes up this adds jobs to those communities, investment in those communities, opportunities for agricultural commodities in those regions, and, most importantly, it is adding refinery capacity to the nation's fuel supply.

However, our tax incentive is expiring next year, and it is very important that we get it extended this year. One of the statistics that is very important that I want to share with you is just the net impact just to the U.S. Treasury, not the return on investment to the entire economy and to the taxpayers. But assuming the biodiesel tax credit is extended past 2008, the program would cost $3.5 billion.

However, during that time, the industry will generate $8.3 billion in revenue to the Federal Treasury, not in terms of economic impact. It is far broader than that. Just to the U.S. Treasury, there

will be a $4.8 billion net positive impact coming into the Treasury. It will be a revenue gainer.

So we urge members of this Committee to do what you can to help extend the biodiesel tax credit and help see its benefits multiply. Congressmen Pomeroy and Hulshof have introduced the bipartisan bill H.R. 196, and I hope you will help support that.

I do want to share with you a very strong concern that we have about a development that we believe seriously—could seriously threaten our industry. The IRS has recently issued an interpretation of the Energy Policy Act's renewable diesel tax credit. It was a provision that expanded—this interpretation expands the definition of renewable diesel.

This ruling came as a result of very intense lobbying of the administration to the U.S. Department of Treasury to exploit an ambiguity in the Tax Code to expand that definition, and the net result is that conventional, large, integrated petroleum companies can get a dollar per gallon for adding biomass in very small percentages in their conventional petroleum refinery capacities.

This is very significant, because this has the potential—it effectively results in a subsidy for existing petroleum refinery capacity. The reason it is a threat to the biodiesel industry is because the volumes that are potentially eligible here for dollar per gallon could bid up the price of the feedstock supply and basically strangle off the supply to all of these small businesses that are building new refinery capacity.

The reason it is bad policy is because the integrated oil companies already had available to them a tax credit of 50 cents per gallon under the transportation bill for adding biomass to their conventional petroleum refineries. However, this expands it to a dollar per gallon, and it amounts to a subsidy of petroleum refinery capacity. So we urge the members of the Committee to please help us support finding a more reasonable piece of public policy that will address this.

[The prepared statement of Mr. Jobe may be found in the Appendix on page 50.]

ChairwomanVELÁZQUEZ. Thank you, Mr. Jobe.

Our next witness is Mr. John Urbanchuk. He is an economist at LECG in Pennsylvania. Mr. Urbanchuk specializes in applying economic analysis tools to individual firm and industry problems. This includes market analysis, business strategy development, and analysis of the impact of government policy and regulatory changes on business and industry. His research specializes in renewable energy, agriculture, and consumer foods. Welcome, sir.

STATEMENT OF MR. JOHN URBANCHUK, DIRECTOR, LECG, LLC, WAYNE, PENNSYLVANIA

Mr.URBANCHUK. Thank you, Madam Chairman, Ranking Member, members of the Committee. Appreciate the opportunity to come and talk with you a little bit this morning about the economic contribution that this industry is making to America. It is hard to follow these two guys. You have heard them both; they are very impassioned, they are very well informed, and they are doing a masterful job.

Looking at an industry that is a young adolescent in the scope of industrial development, the modern-day ethanol industry, as we know it today, is about 30 years old. The biodiesel industry, as Mr. Jobe said, is less than 10 years old. And we have come a very, very long way.

You have heard some of the statistics with regard to production, the number of plants. The numbers are truly impressive. They are truly impressive when you think about the amount of distance that we have come in a short period of time. And we have had some very, very significant impacts resulting from that as well.

The economic contribution of the biofuels industry, ethanol, and biodiesel today is very substantial. Last year alone the ethanol industry spent $6.7 billion on inputs required to make ethanol. The biodiesel industry spent over $300 million—an additional $300 million on inputs required.

Now, a large share of that, the greatest share of that, is corn, vegetable oil, fats and oils used as the feedstock. They account for somewhere between 60 percent in the case of ethanol to 80 percent in the case of biodiesel. And they are largely, as you know, the output of rural communities.

But in addition to that, small businesses benefit most directly from the renewable fuels industry because most of the other goods and services that are supplied are provided by small businesses locally owned in or nearby the communities where the biodiesel and ethanol production facilities are located.

These range, as I said, from corn and grains used to make ethanol and vegetable oils and fats for biodiesel, but they also include things like business and administrative services and maintenance support services, machinery and equipment supplied by local firms—the whole wide range of other businesses that support those activities, largely locally-owned, locally-operated, small businesses in those communities.

While the direct impact in terms of creating demand is quite clear, the indirect impact is also quite clear. That is that every time that one of these plants buys something it represents a purchase of an output from another industry and another business, if you will. And the dollars that are spent directly create output for those other firms, so the dollars that are spent circulate through the economy two or three times.

The wages are paid by the biofuels plant. They get spent, but the wages that are paid by their suppliers get spent, and so forth and so on, so when you look at the overall economic impacts they are quite significant—as Bob Dinneen said, for ethanol about $41 billion of gross output, about $22 billion added to GDP from ethanol alone last year, $7 billion of income, household income, 160,000 jobs supported by the industry, quite significant, and, in addition to that, tax revenue—tax revenue both at the federal level and at the state level.

There is another important factor to keep in mind when we talk about the biofuels industry, and that is—that has been alluded to by Bob, and I am sure will be talked about by Mr. Graves, and that is the contribution of the cooperative sector. We have come a long way. And as you indicated Madam Chairwoman, the ethanol industry now represents one of the most significant value-added indus-

tries for agriculture. And, in fact, farmers have looked for a long time for ways to participate in the value-added to their raw commodity, and the ethanol industry has provided that.

If you go to back to 1991, the majority of ethanol plants were corporate-owned and operated. Today about 40 percent of the ethanol plants are farmer-owned cooperatives or limited liability corporations, and they represent about half of ethanol production. Those are small businesses.

They are locally owned or locally operated, and work that we have done looking at the economic impact suggests that the impact on a local community, a local economy from a farmer-owned cooperative or a farmer-owned plant is 40 percent greater than that of a plant that is owned by an absentee corporate owner. So it is very important for that segment of the renewable fuels industry to continue to operate and continue to grow, and we need policies in place that will continue to foster that growth and development.

Thank you very much.

[The prepared statement of Mr. Urbanchuk may be found in the Appendix on page 55.]

ChairwomanVELÁZQUEZ. Thank you.

Our next witness is Mr. Leon Graves, who became the Director of Industry Affairs for Dairy Marketing Services in January of 2003, a farmer cooperative. In March of 2007, he assumed the position of the Director of Operations and Regulatory Affairs for DMS. Mr. Graves is representing the National Association of Farmer Cooperatives. They are the main entity representing farmer ownership interest in biofuels production. Welcome, sir.

STATEMENT OF MR. LEON C. GRAVES, DIRECTOR OF OPERATIONS & REGULATORY AFFAIRS, DAIRY MARKETING SERVICES, SYRACUSE, NEW YORK,ON BEHALF OF THE NATIONAL COUNCIL OF FARMER COOPERATIVES

Mr.GRAVES. Thank you, Madam Chairwoman and members of the Committee, and thank you for the opportunity to appear here today and speak to this very important issue.

We represent a number of cooperatives, and from a personal perspective we represent a significant amount of the animal livestock industry here in the United States being part of the dairy industry. Two of the members of the National Council for Farmer Cooperatives that I work for—Dairylea Cooperative out of Syracuse, Dairy Farmers of America based out of Kansas City—are dairy cooperatives first and fifth in the country with respect to the amount of milk that we produce, representing a lot of the agricultural livestock side of the industry.

I also have the perspective of having been a farmer many more years of my life than doing what I am currently doing now, and bring that enthusiasm and passion for the industry and expertise to the table relative to the animal agricultural side of this issue and the significant potential that I will speak to in a moment of the use of animal waste and livestock waste as part of a renewable energy stream.

As you have indicated, today I am here representing the National Council of Farmer Cooperatives, NCFC, the national trade associa-

tion representing the nearly 3,000 farm cooperatives across the United States. Cooperatives help meet the feed, fuel, and fiber needs of consumers at home and abroad and provide farmers with the opportunity to improve their income from the marketplace.

You might be surprised to learn that farmer cooperatives provide consumers with many of the brands that they have grown up on—Sunmaid Raisins, Welch's Grape Juice, and Sunkist Oranges, just to name a few.

Farmer-owned companies account for nearly half the ethanol production in the United States. It is this farmer ownership and local decision-making in the industry that will ensure that rural America, and not just the short-term investors of Wall Street, benefit from this country's new interest in domestically-produced fuels.

Energy-generating farmer cooperatives are more than just a local employer, as has been said a number of times here this morning. They are often the hub of the community and the trigger for improvements in infrastructure. Cooperative businesses are based on three fundamental operating principles—governance by farmer members, ownership of the business by those who use it, and, most importantly, the return of earnings to members in proportion to their use of their cooperative.

Because nearly 80 percent of all milk produced in the U.S. is marketed through a cooperative, NCFC is investigating opportunities to provide animal agriculture a stake in the renewable fuels industry by maximizing the use of manure as a feedstock for renewable energy. As the renewable fuel industry increases profitability for corn farmers, high corn prices have translated to higher feed prices for the livestock and poultry sector.

Federal resources are desperately needed to develop the waste energy market in order to restore profitability, deal with waste issues, and allow livestock producers to participate in the renewable energy boom.

NCFC is working with the National Rural Electric Cooperative Association to develop a template for the generation of electricity from manure including wheeling the electricity onto the grid and ensuring dairy producers fair compensation. We will identify needed incentives and hope that Congress will support this effort much like you have supported the incentives which helped build the ethanol and biodiesel industries.

Madam Chairwoman, using just a fraction of the manure generated on this country's swine and dairy operations we can generate enough electricity to power the homes in New York's capital of Albany for nearly 13 years, or to the homes in the nation's capital for two years. AgStar's data shows us that dairy and swine operations in Iowa that could apply methane digester technology would produce enough electricity to light all the homes in Congressman Braley's district for two years.

If anaerobic digesters were more affordable and applicable to smaller operations, the amount of renewable electricity produced would have an even greater impact. As cooperatives, we stand ready to be an important part of this industry that could add millions of dollars annually to the incomes of U.S. dairy and swine producers and to the economies in rural America.

Madam Chairwoman, as you know, the dairy industry is the largest agricultural sector in the State of New York, accounting for one-half of the state's total agricultural receipts. As the nation's third leading producer of dairy products, we are anxious to apply these technologies to all our farms, maximize environmental benefits, and realize a higher income to dairy producers across the state.

We cannot ignore the fact that by using manure as a feedstock to produce gas, fuel, or electricity, we are positively addressing many very important issues. First, we will be increasing the country's ability to produce its own energy. Second, we will be addressing an expensive environmental management issue, which includes odor and wastewater concerns. Third, we will be capturing methane gas and decreasing carbon dioxide emissions. This is clearly a win-win for livestock and poultry producers and consumers in urban areas alike.

In conclusion, farmer-owned cooperatives are playing a vital role in maintaining and strengthening the rural economy, as well as local communities, as vital players in this country's quest for energy self-dependence. The cooperative business structure ensures that rural America benefits from this country's recent interest in domestically produced renewable energy.

We appreciate this Committee recognizing the contribution that small businesses in rural America, like farmer-owned cooperatives, are having in the renewable energy industry, and look forward to working with you in the future, and thank you for the opportunity to appear.

[The prepared statement of Mr. Graves may be found in the Appendix on page 64.]

ChairwomanVELÁZQUEZ. Thank you very much.

It has been quite an exciting presentation, and I just want to assure you that we are going to be looking at ways where what type of role, not only the Federal Government can play to continue to address the issue of energy as an important issue, not only economic issue but also a security issue, and what type of tools can be provided through the Federal Government from tax incentives to the regulatory issues that you have to face, and access to capital. There is a role for the Small Business Committee to play, and that is exactly what we are doing today.

So my first question is to Mr. Dinneen. Conventional debt-based financing via the SBA's 7a and 504 loan programs is already available for businesses engaged in renewable energy projects. Could you comment on the drawbacks that these forms of debt-based financing, even those guaranteed by the government, have in your industry?

Mr.DINNEEN. Absolutely. I would like to give you a more detailed review for the record, but let me just say now—I mean, I think generally the Small Business Administration's loan program has not worked very well for renewable energy projects because of the limitations in terms of how much can be lent and some other issues. But it is going to be critically important, because the grain-based ethanol industry doesn't need loan guarantees in order to continue to grow. That is going to happen.

But one of the most significant challenges that the cellulose industry faces is the increase in capital costs relative to a grain-based facility. And lenders with that new technology are going to need to have some kind of loan guarantee from the Federal Government. Quite frankly, the Department of Energy has been somewhat slow to get their program up and going. There are some limitations to the USDA program, although they are making some changes.

If SBA could be motivated to create a program or enhance its existing programs to accommodate renewable energy technologies, I think that would be a tremendous thing, because it is going to be the smaller businesses that are going to be willing to embrace some of these new technologies, but there will be risks associated with that.

ChairwomanVELÁZQUEZ. Mr. Dinneen, do you think that the creation of an equity financing program aids the development of new technologies in the ethanol industry.

Mr.DINNEEN. Absolutely, particularly for cellulosic conversion technologies.

ChairwomanVELÁZQUEZ. Do you think that it will be helpful for the Small Business Administration to provide counseling and technical assistance to help small businesses develop a strategy to become producers?

Mr.DINNEEN. I absolutely believe that could happen, should happen. Again, these are indeed small businesses that are engaged in these activities, and the small business community is going to have a critical role in our future energy system. I don't see our future energy needs being continued to be met by, you know, the current infrastructure with really large petroleum refineries.

As we mature in our energy future, I think you are going to see much more localized, smaller production meeting market niches. Our industry is going to grow not just in the Midwest. I mean, I am not sure we can get any more plants in Iowa. But as the industry grows, it is growing beyond the traditional grain belt to other parts of the country, to, you know, areas where woody biomass in upstate New York or rice straw in California or agricultural waste in Florida—I mean, there are feedstocks for ethanol all over the country.

And as entrepreneurs seize those opportunities, it is going to be the small business community that does that, and it will be a different energy infrastructure in the future.

ChairwomanVELÁZQUEZ. Thank you.

Mr. Jobe, in your program you noted—in your testimony you noted a federal program that has been critical to the growth of the industry, and that is the biodiesel fuel education, which was authorized in the farm bill in 2002. Can you explain why this program has been important to the biodiesel industry? And, please, can you provide some example where you think this program has worked?

Mr.JOBE. Yes, absolutely. Thank you. The Biodiesel Education Program in the previous farm bill has provided very much-needed education and awareness about biodiesel. Before the biodiesel education program came around, less than 10 percent of Americans even knew what biodiesel was.

Now over half of Americans can identify that they know what biodiesel is and they have some level of awareness about that, and so school systems are adopting biodiesel for their school bus use and their fleets, which is a perfect application. School boards and mayors are hearing about biodiesel and looking to integrate biodiesel into their usage. That education program has been essential in helping educate the petroleum industry on how to handle and distribute, how to integrate biodiesel into the existing infrastructure, and so there is an effort to extend that program in the next farm bill, and we hope that it will get extended.

ChairwomanVELÁZQUEZ. Mr. Graves, what is the single-most important factor to development of the waste to energy market? And why is this technology not yet applicable to smaller operations?

Mr.GRAVES. Madam Chairwoman, I think the single greatest impediment is the cost. The cost of the technology is still significant. We have a number of dairy operations that are spending between a million to a million and a half to implement an anaerobic digester on a farm for methane captured just on that farm.

So access to capital, the opportunity for technical assistance, which has been provided to some degree through USDA and the National Resource Conservation Service. Grant resources from that agency would definitely be helpful in addition to technical assistance. I also think that technologies need to be geared—we need resources for R&D to gear those technologies to smaller operations.

We still have a lot of small livestock operations out there that really cannot put the capital together, nor have the interest, quite frankly, in managing a facility like that. So there is still a lot to be done, and I think the opportunity to capture animal waste and the animal waste stream is a renewable—for renewable energy, we are just beginning to scratch the surface on that, and we are excited about some new opportunities there with the right resources.

Thank you.

ChairwomanVELÁZQUEZ. Thank you.

Now I recognize Mr. Chabot.

Mr.CHABOT. Thank you very much, Madam Chair.

First of all, let me preface my question by commenting and acknowledging that I do believe that ethanol is one of the keys to resolving our—the fact that we are too reliant upon foreign sources of energy, and this is something that we can deal with and handle and begin and end with right here in our own country. So it makes sense in pursuing it.

There are some effects, however, and I would ask Mr. Dinneen and Mr. Urbanchuk, could you discuss the impact that increasing uses of ethanol do have on other foodstuffs and the pricing that consumers pay at the markets and that whole issue there? And I would ask either one of you to—or both to comment on that.

Mr.URBANCHUK. Go ahead, Bob.

Mr.DINNEEN. Let me just start, and you can actually give the numbers. I would just say, I mean, first of all, one of the reasons why members of Congress and the President have promoted the increased production in the use of ethanol over the years is, in fact, to increase the commodity prices, to make sure that farmers are

getting more of their revenue from the marketplace as opposed to the Federal Government. And that has absolutely worked.

I mean, yes, ethanol today is responsible for increasing the price of corn, but a lot of people believe that corn had been undervalued for quite some time. And the chief economist at USDA earlier this year had actually indicated that the increased demand for corn used in ethanol production was actually reducing federal farm program costs by more than $6 billion. So it has been a huge winner from that perspective.

In terms of its impact on food prices, I think it is going to be very minimal, and the marketplace will work those things out. And Dr. Urbanchuk can probably respond more specifically to what some of the impacts have been.

But, you know, I think the marketplace is going to find an equilibrium for corn. You have already seen it. It was up over $4 earlier this year. It has come back down. The marketplace worked. Farmers saw the increased demand for grain for ethanol, and what happened? They planted more corn. USDA reports that there may be as many as 90 million acres of corn planted this year. That is 15 percent more than a year ago. It is a tremendous increase. It is a real shift in agriculture. So, I mean, I think the marketplaces will respond.

Mr.URBANCHUK. Thanks, Bob.

It is an excellent question and one that has gotten a tremendous amount of attention, particularly in the press, a lot of it not very fact-based unfortunately. We have seen a sharp increase over the last several years in the use of corn for ethanol production, and most of the corn—most of the ethanol made in the United States is made from corn. We do use some other grains, and we have the ability to use other grains to make corn—to make ethanol, but for the most part we use corn. There are other potential feedstocks out there.

The impact that has had, of course, by increasing the demand has drawn down stocks and resulted in increased prices that we have seen in the marketplace. But as Bob indicated, the market has responded and responded quite significantly.

We have an opportunity now. We have a farm bill structure in place that allows farmers to base their planning decisions on the signals the market gives them, and they are, in fact, responding with 90 or 90.1 million acres of corn scheduled to be planted this fall, at least farmers indicated intentions for that. We are going to see a large crop come in.

But there is another aspect of this that is important to keep in mind as well, is that with that renewed interest in corn agriculture and in grain agriculture we are starting to see technology come into place that is going to increase yields as well, which will also help increase production.

We have seen an increase in corn prices, and that has resulted in smaller margins and higher prices at wholesale level for a lot of meat and poultry prices. But it is important to keep in mind, it is instructive to keep in mind when you look at those price increases to look at the increase from where we were a year ago.

For example, poultry prices at the consumer level declined for most of 2006. So you are looking at prices now relative to a—you

know, I won't say a peak versus a trough, but a high point versus a low point. Ag prices have gone up significantly. Again, ag prices are up sharply over very, very low prices the early part of 2006.

We have seen an increase in milk and dairy prices as a consequence of higher feed prices, but most of that isn't attributable to increased demand for corn. Rather, it is attributable to changes that have happened in forage conditions and hay prices that have been unrelated to the increased demand for corn.

What I am suggesting to you here is that the market, in fact, is sorting itself out. We are looking at a period of prices that I believe are going to adjust downward as increased production comes into play. But there is also another factor to keep in mind, and that is that when we take corn and we turn it into ethanol, we don't lose the full feed value of that grain.

In fact, what you are doing is you are taking the starch and converting that into alcohol, but you are leaving the fiber, the nutrients, the protein that is in that corn kernel behind. And those nutrients in the form of distiller's grains of dry mill production or corn gluten feed or corn gluten meal from wet mill production can be used for—they are widely used as a dairy feed for other ruminant animals like beef cattle and for swine and poultry.

And as we increase the production of that, you are also going to see that take some of the pressure off of higher grains with regard to the animal agriculture side. I don't expect that we are going to see significant increases in food prices as a consequence of increased either ethanol production or biodiesel production as we move through the next several years.

Mr.CHABOT. Thank you.

Mr. Jobe, let me switch to you if I can now. Do you anticipate the number of flexible fuel vehicles on the road is going to increase with increasing demand for renewable fuels, considering the high cost of these vehicles? And what types of new technology or innovations do you see that may be on the horizon for biodiesel? And if you could keep that relatively brief, because I want to get one final question in to Mr. Graves if I can.

Mr.JOBE. Sure. We are already seeing a shift. Because of fuel economy, the fuel economy increased benefits of diesel fuel in light-duty diesels, we are already seeing a shift to diesel technology in light-duty vehicles. Diesel technology is 20 to 50 percent more fuel efficient, which is why about half of the light-duty vehicles on the road in Europe are diesels.

We are starting to see that now. Biodiesel blends can be used in any diesel engine. Currently, in terms of light duty, only about 3 percent of the cars on the road in the United States are diesel. We are seeing a shift in that now because diesel technology is getting cleaner and better, and biodiesel is well-positioned to play a role in that.

Mr.CHABOT. Thank you.

And finally, Mr. Graves, there is obvious, you know, reduction in the fossil fuel consumption when one talks about converting manure, etcetera, to energy sources and that. How environmentally friendly is that process? And could you sort of walk us through, again relatively briefly, how it works? And you can use as much discretion or as little as you need to considering the subject matter.

Mr.GRAVES. Sure. Thank you, Congressman. It is a relatively simple technology, fairly old technology. The production of methane from animal waste and animal manure, it is a matter of capturing the methane gas produced from animal manure in some type of containment. It can be as simple as a concrete pit in the ground with some type of bladder over the top of it to be able to capture the methane gas.

Normally, the methane gas is then captured and run through some type of an internal combustion engine to turn a generator to produce electricity, and the technology works—it is basically foolproof, as long as you have the right bacteria, the appropriate mix of carbon-based material or the appropriate bacteria in the system to start it, and then it automatically produces methane gas and, you know, it is a fairly efficient technology.

From an environmental standpoint, very environmentally friendly. The animal wastes are completely contained. In many instances, the animal wastes are then separated. The solids can be used, composted, dried, put into other soil amenities and/or used for bedding or, you know, soil amenities back on the farm, the liquid portion being spread. So it works relatively well.

Mr.CHABOT. Thank you, Madam Chair. I yield back.

ChairwomanVELÁZQUEZ. Thank you.

We have two votes, but we are going to go to Mr. Larsen, and then after that we will take a recess for maybe half an hour.

Mr.LARSEN. Thank you, Madam Chair.

Mr. Graves, I want to follow up on that. I am just reading an article that was e-mailed to me. It was in my local paper today in Lynden, Washington, up on the—if you are from Vermont, just go all the way across the border to the other end of the country and you will be in Lynden, all the way across, 3,000 miles from where you are.

The headline is "Lynden Cows Fuel Western Washington University Vehicle." The point is that the Vehicle Research Institute of Western Washington University is university-run, but it is a student research-run institute. They just won a $75,000 grant from the EPA for their methane—biomethane-powered vehicle.

And what they are doing is using methane produced at an anaerobic digester at the Vander Haak farm in Lynden, and they are scrubbing it because it is dirty. They have got to scrub out the CO2 and scrub out—I think it is H2S, and then they can use it as a compressed gas like natural gas, but they have to scrub it, so their technology that they are experimenting with is to scrub this methane so it can be used as a compressed gas in their experimental vehicle. And they just won one of six out of 41—only six of 41 universities around the country who recently won a grant from the EPA to look at this further.

So there is—the idea is out there, and I think what you are describing is the idea on paper. There is a little ways to go on this, and we are relying on university students to do this research. And we probably ought to be relying on more people to do this kind of research.

It also looked at—interestingly enough, what they have calculated is things like cows per mile, and, you know, sort of put it in real terms for everyone and how much cows can produce in

terms of methane and how many cars that means and how many cars—the equivalent of taking them off the road, in terms of the environmental benefit, how much CO2 they are pulling out of the—emissions they are pulling out of the air.

So there are things going on that are important, but there are challenges in the Vander Haak—Mr. Vander Haak, the farmer on this project, is facing serious cost constraints to continue operating his anaerobic digester and needs subsidies not just from government subsidies but also from the private utility that is taking the electricity that is being generated from the generator that is being powered by methane gas as well.

So there is a lot of little moving parts and a lot of financial moving parts to this as well, and I think that is something worth looking into, especially for folks who have got a lot of dairies in their areas.

A second issue, I will just point out—and maybe someone can address this—we also—if you eat coleslaw, congratulations, it is probably from seeds grown by—from cabbage seeds grown in my district, which produces 75 percent of the cabbage seeds in the country. And they are facing the challenge—it is a $20 million industry in one of my counties. They are facing a challenge because people want to grow canola for biofuel, but if there is a cross-pollination it blows out the cabbage seed production and you can't grow cabbage.

So I am wondering if maybe Mr. Dinneen or one of you have looked at this—the challenges of growing crops next to other crops when you don't want them to grow next to each other, and how we address that issue, so you are not blowing out one ag industry for the benefit of another part of the ag industry.

Mr.URBANCHUK. I think that is relatively—I believe it is relatively rare, where you have got that kind of a cross-pollination I guess, or you get one crop damaging another. Typically, what you can run into is problems with regard to crop protection chemical drift from one crop to another.

Mr.LARSEN. This is not a crop chemical drift at all.

Mr.URBANCHUK. No. But that is typically where that kind of a problem runs into, but I think it is relatively rare for that circumstance to exist with regard to canola and cabbage seed. I can't remember too many instances that I have—

Mr.LARSEN. Well, it would be rare, since we grow 75 percent of the cabbage seed.

Mr.URBANCHUK. Cabbage seed, yes.

Mr.LARSEN. It is not grown much anywhere else.

Mr. Dinneen?

Mr.DINNEEN. Canola would be grown for biodiesel, not for ethanol. But this would be so far out of my wheelhouse, I just would hate to hazard a response.

Mr.LARSEN. And I don't mean to be a killjoy on this. I am as enthusiastic as you all are about it. I am just saying that you have got to be sure that we are looking at other parts of the ag industry to be sure, again, we are not destroying—

Mr.JOBE. This is certainly the first time I have ever heard of rapeseed wanting to inappropriately fraternize with cabbage seed,

so we will—we are certainly willing to work with you and figure out, you know, if there are solutions.

Mr.LARSEN. And that is—well, and the state legislature in Washington State is trying to sort that stuff out. And, you know, you can laugh, I know it might sound funny, but this is—to farmers who are making $20 million a year for a very small industry, it is a pretty good deal.

ChairwomanVELÁZQUEZ. Mr. Larsen, it seems like Mr. Graves wants to add—

Mr.LARSEN. Yes.

Mr.GRAVES. I would actually like to, Congressman Larsen, just comment on the research that you referenced at the University of Washington. We have a group of—

Mr.LARSEN. Western Washington.

Mr.GRAVES. Western Washington. We have a group of larger progressive dairy producers north of Syracuse that are contemplating a pipeline, either piping it directly into a plant to produce electricity or to scrub the gas and put it right into the natural gas pipeline system. So we would certainly welcome access to any of that technology and anything that is learned in Western Washington.

Thank you.

ChairwomanVELÁZQUEZ. Time expires, and the Committee is in recess subject to the chair's call.

[Recess.]

ChairwomanVELÁZQUEZ. The Committee is called to order.

And I now recognize Mr. Jefferson.

Mr.JEFFERSON. Thank you, Madam Chair.

I want to ask Mr. Joe, if I might, you made a reference to two issues here that relate to what you think may be a misuse and inappropriate interpretations of the federal tax laws we passed regarding the reexporting issue and the issue of the thermal depolymerization definition.

Let me talk about the second one first, rather than have to say it twice.

Mr.JOBE. Yes.

Mr.JEFFERSON. The ambiguity that you speak of here has led to a definition that you say permits a misuse, and that you have here some large petroleum industry concerns that are taking advantage of this credit without having to meet the same EPA regulatory requirements as those that go directly into the business. Can you explain that further, and tell us what you think the fix is for that?

Mr.JOBE. Yes. Thank you for asking the question. This problem is a result of in the 2005 energy bill there was a tax credit added to our biodiesel tax credit extension called renewable diesel, and the tax credit was intended to stimulate a class of technology called thermal depolymerization that turned waste—animal wastes into a boiler fuel, so turkey offal was specifically referenced in the statutory language, turning that into a boiler fuel.

However, after that was passed, the large integrated oil companies aggressively lobbied the administration to have the definition of that process expanded to the point of such a broad interpretation that it would include even conventional petroleum refinery capacity. The petroleum companies—and I want to mention that—

Mr.JEFFERSON. Well, what is the fix for this, do you think? Because I know my time is going to be short.

Mr.JOBE. Well, the solution for this—the petroleum industry, we are not opposed to the petroleum industry blending biomass into their existing refineries. They can already get 50 cents per gallon for doing that.

However, by allowing them to expand the definition and get a dollar per gallon, it will have very serious negative unintended consequences to the biodiesel industry and lock up the raw material supply for the biodiesel industry and small businesses who have invested in those communities.

Mr.JEFFERSON. So you would limit the amount of incentive they can receive under this? Is that the fix for it or—

Mr.JOBE. Yes, sir.

Mr.JEFFERSON. Or do you want to redefine the definition of thermal depolymerization more narrowly?

Mr.JOBE. Correct. If thermal depolymerization were defined so that it did not include co-processing biomass with—in conventional petroleum refinery capacity, they can—

Mr.JEFFERSON. Well, that is probably the real fix for it, then. Okay. Now, are you concerned, as we go through this, you know, bit by bit, like in this case, you will have someone come up with the notion that, you know what, if we do this—pick this one, we can help in this way, without there being a comprehensive look-see at all the ways that we might help with biomass and all the rest, ethanol, all the rest.

So the Congress keeps picking winners on this thing, as people kind of come up and say, "Here is what we think we can do." As they make some advances, they will come to Congress and say, "Let us pick up mine this time, because we can make this a benefit to small businesses, to the government, to society in general." How do we kind of get at this thing in a comprehensive way where we aren't picking winners, we aren't picking any narrow little areas, and we are addressing the issue of alternative fuels?

Mr.JOBE. That has been the success of the oil companies who have aggressively lobbied for this. That has been their sound byte. We can't pick winners and losers. And the problem is by allowing the large integrated oil companies to get this subsidy by exploiting an ambiguity in the Tax Code and bypassing the regulatory and legislative process, we will indeed pick winners and losers. The winners will be the oil companies who will receive windfall profits, and the losers will be the small businesses who have invested in their communities, and the taxpayers.

Mr.JEFFERSON. Okay. May I clarify? I meant between those who are in the biofuel industries, those who are in the ethanol, those who are in the animal waste, all those folks. I am saying there is a great panoply, a large panoply of alternatives here.

And I am trying to figure out how you might suggest this Committee gets after essentially all of them without saying it is—ethanol is this or not—so that we might find a way to incentivize this whole alternative energy field as opposed to trying to pick a winner here, a winner there, as we did here, and this evolved—then, they all attack it and make themselves available for it.

Is there some way to get at this thing in a general way?

Mr.JOBE. Yes, absolutely. And by making sure that an ambiguity in the Tax Code cannot be inappropriately exploited and bypass the legislative process. It is the responsibility of Congress to enact sound government policy through the regulatory and legislative—

Mr.JEFFERSON. Should we prefer agri-business over fuel from other—waste from a restaurant?

Mr.JOBE. The reason—

Mr.JEFFERSON. And should we prefer, at the end of the day, that when it is used for production for electricity, there is a case for using it for fertilizer?

Mr.JOBE. The reason that the agri-biodiesel was given a dollar per gallon tax credit, and the yellow grease-based biodiesel was given a 50-cent tax credit was because using 20-year historic averages recycled products are about half of the cost of the first use animal fats and vegetable oils.

And so in order to keep the cost of the tax credit program down, it was given half of the incentive, because that was what the requirement would be. And so it was to—it was really mainly designed to keep the cost of the program down.

Mr.JEFFERSON. Yes, I see. That does make it logical, though.

May I ask one more thing? How can we—we have talked about this as a small business opportunity. How can we go about making policy here, try to do some things that ensure that the big companies—that it remains a small business opportunity for most folks in rural America, or anywhere else, and it isn't taken over by the larger concerns? Can anybody answer? What can we do to keep the emphasis in this area on small businesses?

Mr.JOBE. Well, I will just go first, and I have already made it clear that if this renewable diesel tax credit is not further defined, it will pick winners and losers, and it will pick the large integrated oil companies over the small businesses and will put those investments and assets at risk. And so I urge the Small Business Committee to look at this issue and please urge a more reasonable policy on this matter.

Mr.GRAVES. Congressman Jefferson, I would also add, if we are going to make this a business for small businesses, we have to pay attention to access to capital. The regulatory arena has to be fair and predictable and affordable, and I think we still have to work on the R&D for new, efficient, less expensive technologies that work in smaller settings than we normally would see in other places.

ChairwomanVELÁZQUEZ. Time is expired.

Mr. Chabot, do you have any questions at this point?

Mr.CHABOT. I have a couple of questions, but I would be happy to defer to your members and maybe go last, if you would like.

ChairwomanVELÁZQUEZ. Okay. Thank you. Yes, sir.

Mr. Braley?

Mr.BRALEY. Thank you, Madam Chairwoman.

There is two things in Iowa that we are very proud of—agriculture and education. My family has been farming and teaching in Iowa for about 150 years. And, Mr. Graves, it may interest you to know that my great-great-grandfather, George Washington Braley, walked to central Iowa from Northfield, Vermont in 1855, looking for better farm ground.

My other great-great-grandfather sailed here from Ireland around that same time looking for better farm ground. And one of the things that I know is that we are going to have to think about how we are going to educate the next generation of leaders and technicians in the renewable fuels industry or are we going to be left with a huge void.

And that is why I was very proud to introduce as my first bill in Congress H.R. 872, the New Era Act, which creates a partnership between community colleges and the renewable fuel industry to make sure that the next generation of technicians have the proper education and training to serve this rapidly-expanding industry.

This is a big concern to me, because I am probably one of the few people serving in Congress who took four years of high school shop classes. And I am disturbed by the fact that we don't look holistically at our educational issues, including our rapidly-diminishing vocational programs in high schools, and, in fact, not only ag but also the technicians of tomorrow. And we have a huge void between what is being done in high schools and what is available at community colleges.

So I would just urge you to pass on to your members that this is a great bill to get behind to make sure that we have the proper technicians. And I would like to hear from you about what your respective groups are doing to look not just at the production side of this but also how we sustain it by having trained people with the skill sets that are going to be necessary to continue to crank out what I think we all believe is a very appropriate switch in our focus from dependence on Mideast oil to what we can grow in the Midwest.

Mr.DINNEEN. Congressman, I would like to thank you for your leadership on that bill, because, quite frankly, the workforce needs of our industry are tremendous right now. Our industry is going to double in the next 24 months, and one of the real challenges that we face is finding qualified people, finding welders to build the facilities, finding people that are able to work in the plants and have the skill set necessary to help this industry move forward.

So we are strong supporters of your bill. We are also working with the Future Farmers of America. We are partnering with them on an education program. We have put a quarter of a million dollars into that just so far this year, and that is going to be an ongoing project.

We are also working with a group called Skills USA that is looking at workforce issues, and we are just beginning to develop a program with them. And we also have been working with the community colleges, mainly across the Midwest, trying to develop curriculum that will help our industry as we move forward. Your bill is going to help all of that, and we appreciate that.

Mr.JOBE. I will just add real briefly that we also support that initiative. We have also been looking at supporting the FFA education initiative that Mr. Dinneen referenced. In terms of the biodiesel industry, there is a shortage of trained technicians, particularly in the chemical engineering, the chemistry engineering sector, safety is a very important concern in our growing industry. In an industry that is growing as fast as our industry is growing, safety is defi-

nitely a concern. So we support what you are doing to try to enhance those measures.

Mr.URBANCHUK. Briefly, from the economic side, as you are all aware—and it is not just limited to the renewable fuels industry but all small business and large business—but, largely, our competitive advantage is hinged to our quality of our labor force at all levels. And the approach that you have taken, the legislation you have taken, I think is going to be a tremendous step in helping us maintain that competitive advantage.

We have for a long time been moving jobs offshore, and one of the obvious reasons for that has been labor, access to labor, not just price but quality as well. And it is very important to keep in mind that what we are talking about here, this is the manufacturing sector industry. We have been losing manufacturing sector jobs in the United States for a long period of time.

You are looking at an industry here that is creating manufacturing sector jobs, and is helping to revitalize rural communities and allow those job opportunities to bring young people back into communities in Iowa and in other areas in the Midwest. In central Pennsylvania where I come from, okay, we are seeing opportunities, and that is a very, very important aspect of maintaining that competitiveness to allow us to help reverse that trend.

Mr.GRAVES. Congressman Braley, just very quickly, my youngest brother drove to Iowa State in search of better farmland, graduated, and now farms about 4,000 acres of your finest land, so I am still back farming the land in Vermont.

So, but on a more serious note, we appreciate your efforts and your leadership on this. Many of the cooperatives are developing staff expertise. We need to develop that expertise, so that we can be good ambassadors and help educate and provide good information to our members. That is, we think, a very critical step.

We also have in many of our cooperatives young cooperator groups where we foster leadership, young folks that come through the industry, through 4-H and FFA and this is the next logical step where they will gain some expertise and have access to good information. And so we believe very strongly in what you are doing, and we thank you for your efforts.

Thank you.

ChairwomanVELÁZQUEZ. Thank you.

Ms. Clarke?

Ms.CLARKE. Thank you very much, Madam Chair, and thank you to all of you.

I am from New York City, so we will use your products; we won't manufacture them. But I am glad to have you here in what I call the dawning of the next phase or the new era in terms of where we are moving as a nation to produce fuel that will take us into the 21st century. I wanted to raise an issue that I think is very important in the context of the growth and development of this industry, and I wanted to examine the federal policies that focus on renewable fuels but take on a global perspective.

I wanted to raise the issue of imported duties on ethanol fuel, and the global implications and impact of renewable fuels given where we are, and the availability of resource and production and demand.

We have currently in place the Caribbean Basin Initiative, also known as the CBI, which was created in 1983 to promote stable political and economic climate in the Caribbean region. It granted duty-free status to many products from these countries, including ethanol under certain conditions.

I wanted to ask Mr. Dinneen and Mr. Urbanchuk—I know that duty-free treatment for CBI ethanol has raised some concerns, especially, as you both stated in your testimony, that U.S. demand for ethanol has been growing. However, historically, imports played a relatively small role in the U.S. ethanol market. Last year, for example, the ethanol from CBI countries represented only 3.4 percent, yet many critics contend that duty-free imports from the CBI would undermine the domestic U.S. ethanol industry.

Can you give us basically what your position would be on the duties for imported ethanol fuel?

Mr.DINNEEN. Absolutely, Congresswoman, and thank you for the question. Before I get there, don't discount the fact that New York City may one day be in the production business of ethanol as well, because there is a company in California, BlueFire Energy, that is looking to produce ethanol from waste products, from municipal solid waste, and they are setting up a facility right at a landfill in Los Angeles. And there is no reason the same technology could not be used at landfills all across the country, so New Yorkers may one day find a market for the ticker-tape parade material.

Ms.CLARKE. Madam Chair, we have got to take note of that.

[Laughter.]

Mr.DINNEEN. With respect to the duty, let me clarify. The Renewable Fuels Association was part of the coalition that supported the CBI agreement in 1990, and we continued to support it today. We do think that there are important policy objectives of allowing that region to grow in industry, and we have not been at all concerned about the imports from that region at all.

Where we do have concerns about the secondary tariff, those people that would seek to lift the secondary tariff have characterized it as a barrier to entry when, in fact, the secondary tariff is not a barrier to entry at all. We imported 650 million gallons from Brazil last year.

Brazil has built a heck of an ethanol program through 35 years of production incentives, mandates, vehicle tax incentives, infrastructure development, export enhancement, all things that I think make sense. They have built a great industry, just as we are trying to do here, but they don't need our tax dollars. We don't need to incentivize them as well.

And the reason I say that is refiners get a tax incentive when they blend ethanol whether that product is imported or domestic. So if you remove the secondary tariff, what that means is that imported product is now being subsidized. It gets the same incentive that is intended for encouraging domestic production. And we welcome competition from Brazil; we just don't think that U.S. taxpayers need to subsidize that product at all.

Mr.URBANCHUK. And that is really one of the key components to this issue, and I want to come back also to the issue of competitiveness as well. As I indicated to you, we make most of our ethanol from grains, with corn being the primary one. Let us be honest. In

America, that is one of the things that we do best. We grow corn better than anybody else on the face of the earth. God has given us the resources to do it, and we have got the technology to do it, and the farmer know-how, and we do it very, very well.

If you go south of the equator and you go to Brazil, their corn is sugar. And they have got a sugar—we have a sugar program that effectively keeps sugar as a feedstock uncompetitive in the United States. If you remove that secondary tariff and you allow a Brazilian exporter to enjoy the tax benefit that we give the blender, you are going to provide an incentive for companies to take their investment and move it from rural America south of the border.

And you are going to essentially end up doing what we have done to other manufacturing sector industries. You are going to provide an incentive to take that investment and those jobs and move them out of the United States.

As Mr. Dinneen indicated, there is no problem in competing head on head with Brazil. We can compete with Brazil, but we want to compete fairly. And I think we have to be very, very mindful of what the potential ramifications of lifting an embargo are.

The CBI—I think, again, from the perspective of providing the exemption or, excuse me, the tariff-free status of CBI is an excellent program, works very, very well. Brazil is an whole other kettle of fish.

Ms.CLARKE. Thank you, Madam Chair.

ChairwomanVELÁZQUEZ. I am going to take this just one second, because you raised the issue of Brazil. Why are you—when we talk about CBI, you raised the issue of Brazil?

Mr.URBANCHUK. The United States is the world's largest producer of ethanol. The world's second-largest producer of ethanol is Brazil. If you take all of the other countries in the world together, they don't produce as much ethanol as the U.S. and Brazil do.

ChairwomanVELÁZQUEZ. I understand that. But CBI doesn't cover Brazil.

Mr.DINNEEN. It doesn't. But let me—the question was asked in the context of the secondary tariff. And currently under the Caribbean Basin Initiative, the secondary tariff does not apply to Caribbean product. It would apply to Brazil. And people have talked about removing that secondary tariff, and the first people that will be hurt by that will be those that are currently producing under the CBI.

Mr.URBANCHUK. There's another aspect of it, too, that is important, and that is that if you look historically at the development of the Brazilian ethanol industry, they produced a form of ethanol that contains water. It is called hydrous ethanol. That can't be blended into gasoline. It has to be processed. They would ship that to the—largely to the Caribbean countries—

ChairwomanVELÁZQUEZ. I know. Yes.

Mr.URBANCHUK. —right, and that provided an industrial base, which is very, very important for economic development. Brazil now is producing more and more anhydrous ethanol that can be directly used. So essentially what happens, they can bypass the Caribbean countries and come directly to the United States, so not

only are domestic producers adversely affected but so are producers in industry in the Caribbean Basin.

ChairwomanVELÁZQUEZ. Mr. Shuler?

Mr.SHULER. Thank you, Madam Chair. We have had some really great panels, but without a doubt this is the best panel we have had here at the Committee.

As a freshman coming in, you have a lot of diversity within—certainly within our own caucus, but diversity throughout from different regions, different ideologicals, different areas. But there was one thing that our freshman class certainly had, and I have two of my colleagues here from the freshman class.

We all had one thing in common, and that was sustainable renewable energies. And so regardless of differences we may have in other subjects, sustainable renewable energy is at the top of all of our lists.

And so I just want to commend you, Madam Chair, for putting such a great panel together today.

And also, Mr. Dinneen, I mean, thank you for using the technologies, the distillery process which we helped create in the mountains in western North Carolina. We appreciate you thinking of us and just remember us folks in the mountains of North Carolina when you use that distillery process every day.

Mr.DINNEEN. Drink the best, drive the rest, Congressman.

[Laughter.]

Mr.SHULER. Well, thank you. Mr. Dinneen, while I am—let us talk about the diversity. I mean, you know, so often in my district, I mean, a farm in my district is 10 acres. The topography, 10 to 50 acres, you know, if you find 50 acres that is tillable in western North Carolina, and that is a very flat piece of property. Talk about the ways that our farmers can diverse—and maybe this is open to all—both in the ethanol and, Mr. Jobe, in the biodiesel.

You know, what more can we do? How can we continue to put our—we want to put our farmers back in the economic structure they have been for decades, and we have been losing that certainly in our area. How do we encourage? And also, what are some other things that they can grow? Obviously, no one in west North Carolina—I mean, apples is a big part, so it kind of gives you a little idea of what—we do grow corn, tobacco.

Mr.DINNEEN. Well, indeed, one of the great things about ethanol is that you can produce it from such a wide variety of agricultural feedstocks. I mean, yes, today corn is king, but we are also producing ethanol from sorghum today, which is grown in the southeast in much dryer climates. Sorghum is also a grain. We used about 20 percent of the sorghum crop last year.

In your state, in North Carolina, there have been people that have been looking to produce ethanol from sweet potatoes, something that can grow quite well in that area. North Carolina also has an awful lot of woody biomass.

And I think as our industry grows, and as new capital is coming into the industry, new intellectual capital is coming into the industry as well, and they are looking at a range of new technologies, a range of new feedstocks, and I think areas of the country are going to soon recognize that they have got renewable energy feedstocks right there.

And it doesn't need to necessarily be a transition. They can take advantage of the value-added benefits of ethanol by processing the agricultural abundance that may already be in their area.

Mr.SHULER. Very good.

Mr.JOBE. Congressman, in my written testimony, I did point out—I had to pare it down, but I did point out that there is a small business in Asheville, North Carolina—Blue Ridge Biofuels—that is a small producer of biodiesel. They produce it from recycled cooking oil.

They collect cooking oil from 150 local area restaurants. They have expanded their capacity to two million gallons a year. They now employ 10 people. They plan to hire five more. This is an excellent example of how ingenuity, entrepreneurship, and small businesses have benefited by this tax policy and this good, sound, public policy. They are supplying fuel to the Asheville Municipal Airport, the University of North Carolina in Asheville, they are helping to provide the city's electrical power, and it is creating a lot of just good positive benefits throughout the community.

And that is an example of how, you know, we grow—we grown corn here. This is what we grow. We also grow soybeans. That is our primary oil seed crop. It will remain a predominant commodity for oil seeds in the United States, but in addition to that all oil seeds—corn oil, canola, as well—all of the vegetable oils, as well as animal fats that can and are being used for biodiesel production, and it is having dramatic positive benefits throughout the livestock industry and the entire agricultural sector.

Mr.SHULER. Very good. Smoky Mountain Biofuels is obviously a competitor of Blue Ridge Biofuels. And they are different sections of my district, both have done incredible—I mean, just absolutely—of all of my tour in the district, Smoky Mountain Biofuels have actually taken it to another step. And there actually they have contracted with the local municipalities. They have taken the—a condemned piece of property that was a landfill.

They are extracting the methane gas to work through the distillery process. And with that excess methane that they are pulling from there, they are totally self-sufficient, and they are actually put in an ironworks or a blacksmith shop, in addition to what they have been able to do.

Are you seeing a lot more of that, of people using some of the methane and almost getting to the point of almost self-sufficient? In our district, I mean, they have done an incredible job, and that can be open to almost any of you.

Mr.JOBE. I will just mention real briefly we have a number of new—we get approximately two new members a week in terms of new small businesses that are putting—making investments in biodiesel production. Many of them, like the one you mentioned, are utilizing renewable resources.

There was a new plant in Denton, Texas, that went in as a joint venture with the city of Denton. They located their biodiesel plant at their landfill, and they are running—they are powering the plant off of landfill gas, and they are producing—they are taking in the city's recycled cooking oil. They are using the landfill gas to produce it in the biodiesel, and then they are fueling their vehicles

and it is very much a closed loop system. And we are seeing more and more examples of that throughout.

Mr.SHULER. And this same group actually teamed up with one of the larger petroleum gas companies in our district. And the gentleman who—the CEO, the owner of the company, his statement was, just as our ranking member says, we have to lessen our dependence upon petroleum. And here is a guy that is in the fuel industry.

And I think that is great leaps and bounds, and I want to commend you all. Continue your hard work and dedication to—because what you are doing today is going to—it is going to help my children and their children's lives in time to come. So thank you.

Madam Chair, I yield back.

ChairwomanVELÁZQUEZ. Mr. Chabot?

Mr.CHABOT. Thank you, Madam Chair. Just a couple of final questions.

In the President's State of the Union address a while back, he put forth the idea of expanding the nation's supply of biofuels from five billion gallons in this year, 2007, to 35 billion in—10 years from now in 2017. Is that a realistic goal? Should it higher or lower or just any comments you have? If you could keep it relatively brief, because I think we are getting ready to wrap up here.

Mr.DINNEEN. The President's plan was for alternative fuels, not just renewable fuels. And I think in that context it is an imminently achievable goal, because it could be biodiesel, ethanol, cellulosic ethanol, coal to liquids, electricity, other natural gas fuel. So in that context, I think it is absolutely a very achievable goal.

Mr.JOBE. In terms of the biodiesel industry, we believe that we can realistically achieve about 5 percent of that goal. On the diesel side of the ledger, considering that we are a gasoline nation, that makes a huge difference. If we could achieve 5 percent penetration of replacement of our diesel fuel by 2015, it would be very significant.

Give you an example—of the 37 billion gallons of on-road diesel fuel we use today, if we are to replace that with 5 percent, it would be 1.85 billion gallons. That happens to be the exact same amount of diesel fuel that we refine from all of the crude oil we import currently from the nation of Iraq. It also represents one-fourth of all of the diesel fuel that we refine from all of the crude oil we import from the entire Persian Gulf region. So from the diesel side of the ledger, we can make very big energy security gains.

Mr.URBANCHUK. Absolutely achievable. Again, keeping in mind that we are talking about alternatives, which transcend the biofuels side, you are going to see tremendous growth in the biofuels, in biodiesel, in new feedstock, cellulose, for ethanol. But you are also going to see the emergence of other alternatives such as coal to liquid, which, you know, we—in Pennsylvania we consider ourselves the Saudi Arabia of coal. I know the guys in Montana tend to think that they are, but we know we are.

There are a lot of opportunities, and we are going to see those—that growth take place. And, again, look at this industry as a prototype. You see tremendous growth, and an industry that was an infant is now becoming a young adolescent, and still has a long way to go before it matures.

And the policies that you all consider and put forth that stimulate this are also stimulating investment, and those new technologies are going to help us get to that and help ensure our energy security and our economic vitality in the United States.

Mr.CHABOT. Thank you.

I have time for one more? As the minimum requirement for renewable fuel content increases over, say, the next five years, could you comment on how this would affect the cost at the pump to the American consumer who is filling up his or her tank there? It probably goes back and forth, actually, but there is—it is a little multifaceted, but anybody like to—

Mr.DINNEEN. Well, you are referring to the renewable fuel standard that passed as part of the Energy Policy Act of 2005 that required 7-1/2 billion gallons to be used in motor fuels by 2012, as sort of indication as well to just how achievable a 35-billion gallon mark might be in 2017.

Given the market's signal, boy, the industry has sure responded, because we have doubled in size and we are going to double in size again over the next 18 months. We will hit 7-1/2 billion gallons not by 2012 but by sometime this year, far ahead of the schedule that was included in the 2005 bill.

So what that means is you are adding more and more domestic renewable fuel to the motor fuel supply and you are absolutely driving down the cost of gasoline. Since the year 2000, 30 percent of our increased gasoline consumption has been met with ethanol, by ethanol, increased ethanol use.

Taking a shorter timeframe, last year gasoline consumption increased about a billion gallons. But ethanol production increased 1.2 billion gallons, so we are outpacing gasoline consumption in this country, which means we have not just stemmed the tide of increased gasoline imports, we are beginning to reverse it. And when you are adding that much additional supply to the marketplace when you are replacing imports, you are absolutely having a significant beneficial impact to consumers.

Mr.URBANCHUK. Absolutely. It is a stabilizing factor, and it is helping keep gasoline prices and petroleum prices from being higher than they otherwise would be. Keep in mind, we are importing about 60 percent, a little bit more than 60 percent of our energy requirements.

When we can replace those imports with domestically produced products, the money that we spend on that stays in this economy rather than going abroad, and that, again, has those impacts that we talk about. But very clearly, the growth of this industry is going to be a phenomenally important stabilizing effect, and I think will eventually force down petroleum prices.

Mr.JOBE. If I may, the American Trucking Association has passed a resolution that they strongly support the increased capacity and production of biodiesel. They see it for a number of reasons. First of all, with every plant that goes up, biodiesel plant that goes up, you are growing the fuel supply. You are actually providing the country with more fuel, creating downward pressure on prices, and they have realized—they have come to the realization we are a gasoline nation.

And because there is more gasoline refined in the United States than diesel fuel, supply disruptions from climate and other things, the hurricanes, other shocks in crude oil prices, it hurts diesel fuel prices more and you can see that in recent years. And the trucking industry, which uses diesel, has said that biodiesel and biodiesel plants going up decentralized in rural America is helping grow refineries and grow our refinery capacity, something the petroleum industry has not done.

Mr.CHABOT. Thank you very much. I yield back.

ChairwomanVELÁZQUEZ. Mr. Graves, for a long time farmer cooperatives have provided value-added opportunities to farmers. That is something that needs to continue.

So I would like to hear from you, what is it that your organization is doing regarding the Farm Bill 2007 to make sure that continues?

Mr.GRAVES. The National Council—thank you for your question. The National Council of Farmer Cooperatives is in the process of finalizing its position relative to specific requests in the renewable energy title. We do have some members within the National Council, though, that have some very specific requests that, if I might, I would share that with you, Madam Chairwoman.

I think the first issue that we would like to see—we would like to see tax credits and tax credits for renewable investments by our farmer members of our cooperatives, probably retroactive. And I think there is a specific request by one organization to go back at least five years, to recognize that investment, to begin to recapture some of that value to farms.

We would also like to see greater implementation, grant money, access to capital, primarily through USDA, the Natural Resource Conservation Service, improved technical assistance, and access to capital would definitely be very, very helpful. And then, finally, more money into the research and development for new, maybe more efficient agricultural waste-to-energy technologies, and more affordable technology and technology that is more applicable to smaller operations. Those are some specific things we would like to see.

Thank you.

ChairwomanVELÁZQUEZ. Thank you.

Mr. Braley?

Mr.BRALEY. We have been focusing on fuels, because that is obviously the subject of this hearing. But I want to move in a slightly different direction, because we know that businesses in general, and small businesses in particular have derived enormous economic benefits from petroleum-based products.

And what I want to talk about is what some of the renewable fuels derivative potential spillover effect into the economy is. I will give you a couple of starting points for discussion. The city of Waverly in my district has long been a leader in moving toward more sustainable forms of energy supply to the members that it serves.

They partnered with Cargill to come up with an environmentally-friendly electrical transformer, replacing PCB-based lubricants with a soy-based lubricant that can be used, and at the end of the capacity of that transformer in theory you could crack open the case of the transformer and pour it on your salad and eat it.

Another thing that is going on in my district is the national Ag-Based Lubricants Center is doing great things in terms of coming up with non-petroleum-based lubricants used in the rail and trucking industries. And as someone who spent a lot of time working for the Poweshiek County Road Department building creosote-treated bridges on farm-to-market roads, and seeing my face be burned off from the fumes coming off of that creosote on 100-degree days, I am very excited by some of the things they are doing in addition with impregnation and preservatives of wood using renewable fuels as the additive.

So I would the four of you to try to address some of the things that we can see in the future from renewable fuels that would provide benefits in other areas as we have seen from petroleum-based products.

Mr.DINNEEN. Well, Congressman, I think you have tapped into something that is very important here, and that is there is nothing that is produced today out of a petroleum refinery that could not be produced out of a biorefinery. Today the focus is absolutely on fuels, as you say, but as the industry continues to grow and mature and is utilizing new technologies, you are going to see more bioplastics and biochemicals and a range of bioproducts.

USDA has had a program in place, and we are just starting to identify what some of those other market opportunities might be, but I think you have to look at this industry as really being at its foundation. And we are building it today, and I have said in the past our industry already is unrecognizable from what it was five years ago. It will be unrecognizable five years from now, and those companies that are able to succeed are the ones that are able to diversify and identify additional markets beyond just fuel to be most competitive.

Mr.JOBE. Just very briefly, I agree with everything he said and give you an example of what is going on in the biodiesel industry, about—there is a co-product, a byproduct of biodiesel production, the primary one of which is glycerin. And as biodiesel has become more—we have produced more and more biodiesel, glycerin stocks have become more and more abundant, and so it is—and with crude oil prices going up, those compounds are competing more competitively with their petroleum counterparts.

And as an example, glycerin we have already demonstrated makes an excellent replacement for propylene glycol, and that is a primary chemical used in antifreeze, although it is biodegradable and it is nontoxic, and, more importantly, it is non-corrosive. And so de-icers for airplanes use propylene glycol. These can be used, and it has been demonstrated with a glycerin-based compound. More research needs to be done in this area, and we are excited to continue to try to promote that.

Mr.URBANCHUK. There has been a fairly substantial long-standing effort on the part of the corn industry and the soybean industry to promote the development of industrial uses of their product. That is non-fuel industrial uses.

One of the things that the growth in the renewable fuels industry has done is it has devoted or attracted more attention to how we better utilize that raw material and that raw resource, so that we can take a kernel of corn or we can take a soybean and we can

get a far greater range of products from that which don't necessarily compete with one another but supplement one another. And that has, again, drawn the attention of people in the research and development community to develop new varieties of product that can be produced that do more than one thing and do them very, very effectively.

And I think as both Mr. Jobe and Mr. Dinneen have indicated, you are looking at an industry that really is in its infancy with regard to the development of this whole notion of biorefineries and where we can go. I think you will see over the next 10 or 20 years a tremendous growth in those products and their commercial applications, and that is going to provide a tremendous amount of opportunity.

Mr.GRAVES. Congressman, I would only add that the National Council and its members would agree with the positions already stated, that biorefineries have the opportunity to produce a lot of primary and secondary products that will be of great benefit to the agricultural industry.

A couple that come to mind, in addition to equipment lubricants and—that are in high demand, in need, there are a lot of plastics that are used. There are a lot of pesticide products on farms, herbicides, that are derived from petroleum-based products that we think have some real opportunity as secondary products coming out of the biorefinery process.

So we would be very supportive of anything that we could do as an organization to help move that forward as well.

Mr.URBANCHUK. And we can do it without jeopardizing the food supply.

Mr.BRALEY. Well, as a student at Iowa State University, I took classes in Carver Hall, named for one of our most distinguished alumni, George Washington Carver, who really started us down this road of exploring innovative uses of how we can produce things from plants. And I would hope that as we move forward in this important industry we remember the legacy he left us and continue to push the envelope in providing business opportunities and innovative research and science in areas that everyone in this country can benefit from. So thank you for your testimony.

ChairwomanVELÁZQUEZ. Mr. Jordan?

Mr.JORDAN. Thank you, Madam Chair. I apologize for missing. I was in the Judiciary Committee.

But I wanted to talk a little bit about Ohio, and the Ranking Member has said that there has been some comments about our state. I think I represent the best district in the country. These folks might argue with me, but the Fourth District in Ohio is—actually, of the 18 Congressional districts in Ohio, it is number 2 in agriculture, but also number 2 in manufacturing, so it is a great district and big ag interest there.

I think we have like six ethanol plants coming online, several in the Fourth Congressional District. I am also getting it from both sides, as I am sure Mr. Braley in Iowa understands, the—my old State Senate District, we had more large livestock operations in that Senate District than the rest of the state combined. So I am hearing from our poultry producers, pork producers, etcetera, on the price of corn.

But talk to me a little bit about Ohio. And I happen to think we are kind of uniquely positioned as sort of the gateway to the west and where the ag belt kind of starts, and also give me your thoughts. And I think Mr. Dinneen had commented on that. I know that is a general question, but fire away if you can.

Mr.DINNEEN. I did indeed. I mentioned that there are five plants currently under construction, and I think there is going to be a groundbreaking next week that will add to that. Ohio is sort of the new frontier for where many of the ethanol producers are looking as fertile ground for existing grain-based ethanol production.

I mean, it is putting a—or having some impacts on the livestock and poultry markets, but, as we talked about earlier, the marketplace is going to find an equilibrium. It is going to allow for sufficient quantities of grain to meet the needs for food, feed, and fuel uses in this country.

You have already seen that start to occur with 90 million acres planted this year in corn, and you have seen the corn price already start to drop. But one other point.

Mr.JORDAN. Excuse me one second. Ninety million acres. How much additional acreage is that compared to last year?

Mr.DINNEEN. That is about a 15 percent increase over last year, the single-largest increase—

Mr.JORDAN. That is what I heard, 10 to 12 acres, yes, or 10 to 12 million.

Mr.DINNEEN. Right. But one of the real benefits of ethanol production, we just take the starch from the corn. And I am sort of the poster child for, you know, we don't this much starch in our diet as we have today. And the same can be said for animal feed as well. And what we leave behind is a very high-protein, high-mineral content, high value feed product that then is sold to the livestock market and is sold to the poultry markets, and they are using it in their feed today and will use it increasing rations in the future.

So it is not we are just taking corn and taking it completely out of the food supply. We are not.

Mr.JORDAN. And some livestock groups can use it. The beef—the cattle industry can use it more than poultry or—

Mr.DINNEEN. Well, again, it is going to be an example of the marketplace responding. And today's distillers' dried grains—

Mr.JORDAN. Right.

Mr.DINNEEN. —have some oil content remaining in it. That oil content makes it a less desirable feed for pork, but there are plants that are today, with centrifuges, extracting the oil, using the oil to produce biodiesel, and then you have a higher value, higher protein content feed, that is even better for pork. And so instead of being limited to 10 or 12 percent feed rations today, with that kind of a feed product, they can feed significantly more.

That is just an example of how the marketplace is going to respond to the signals it is getting today in a most of different ways.

Mr.JORDAN. Thank you.

If any of the others want to comment, go ahead.

Mr.JOBE. Just real briefly. Ohio is real—has been a pioneer and a leader in biodiesel production. It was a little known small business called Procter & Gamble that first produced the first specialty

manufactured biodiesel for demonstration purposes in Cincinnati about 15 years ago.

But now Ohio is blossoming with a number of small business investments throughout the state. Of course, it is—Ohio is one of the leading soybean production states, and that is creating some very significant benefits for Ohio soybean growers.

Mr.JORDAN. Thank you.

Mr.URBANCHUK. A benefit from geographic location as well. You are closer to the major east coast markets where a lot of the reformulated gasoline is being used, where ethanol has a significant share and a growing potential. You have got those lakes up there. It is very ideal.

See, I am a Pennsylvanian, so, you know—

Mr.JORDAN. No, you are right. You—

Mr.URBANCHUK. —I can't say too much bad about Ohio.

Mr.JORDAN. You start in Columbus, Ohio, and draw a 500-mile radius around Columbus, and you get the 60 percent of the people in the country.

Mr.URBANCHUK. That is right.

Mr.JORDAN. So it is uniquely positioned, so that has always been helpful.

Mr.URBANCHUK. But technology has also been an important thing. Joe mentioned Procter & Gamble. They are also one of the leaders in developing some of the plastics from soybeans and from other products as well and looking at industrial—other industrial applications. So there is tremendous opportunity.

Mr.JORDAN. Great. Thank you, Madam Chair.

ChairwomanVELÁZQUEZ. Any other questions?

I just have one more question. You know, I come from New York, New York City, and in this whole discussion I just—I am here asking myself, what is there for New York City to become a leader in the biodiesel production side? And having so many thousands of restaurants, can you talk to me, Mr. Jobe, about the recycled cooking oil and how much biodiesel is made from the secondary use?

Mr.JOBE. Yes. Thank you very much for the question. We actually have a number of members in New York City and around the metropolitan area that are actually producing biodiesel right now from recycled cooking oil and from other products. Yes, there are a lot of restaurants in that city, and it is being utilized currently.

The city is utilizing that production right now for boiler fuel and for heating oil and also in the municipal transport trucks. It is small usage, but it is growing enthusiastically. And one of the major petroleum distributors in the country, and certainly in the northeast, is Sprague Energy. They were the—they are a major distributor of heating oil and other oil components in the northeast, and they provide the city—they supply the city with biodiesel. They blend it, and they are using it currently. So New York City has massive potential.

The northeast, in general, has about 90 percent of the heating oil usage in the country, and bioheat is now just really burgeoning in the northeast. B5 blends in New York City and throughout New England are really going in a very powerful way.

Mr.URBANCHUK. Several years ago, I think about three years ago, we did a feasibility study for NYSERDA, looking at the feasi-

bility of a statewide biodiesel industry in New York. And we looked at really the middle Atlantic and New England states, but structured on New York. And when you look at biodiesel, particularly New York City has got a tremendous opportunity largely because of the access of non-virgin vegetable oils, used cooking grease, trap grease, a number of other factors that will support that industry.

And, in fact, there is biodiesel production, if not necessarily in the five boroughs, and I think there is actually one in one of the boroughs, but in the immediate area surrounding New York City. And, again, the access to feedstocks is there.

And as Bob said, for future development, the use of municipal solid waste and other factors, again, of which there is a significant amount, it makes a tremendous amount of sense to consider ethanol production in those urban areas. And New York City is a prime candidate for that.

Mr.JOBE. If I could just add one more thought. In addition to biodiesel production, and the expansion and the growth of the biodiesel industry, it has also expanded the service industries. We have a number of members—tank manufacturers, centrifuge manufacturers, chemical manufacturers—in the New York City area that are servicing the biodiesel industry. And it has really created cottage industries that are also very much growing.

One of those cottage industries is—emanates from your area, and that is Wall Street. Virtually all of the major investment companies are benefiting by the growth and investment throughout the country in these small businesses.

ChairwomanVELÁZQUEZ. Any other comments from the witnesses? If not, Mr. Chabot, would you like to—well, let me just thank all of you. This has been a fascinating panel. Thank you for the insight that you have provided to us.

And this is an issue that we will continue to explore and see how this Committee can play a significant role in making sure that we provide to the members that you represent the tools that will help you to continue to grow and expand.

Thank you very much. And let me just say that I ask unanimous consent for the members to have five days to enter statements into this record, and this hearing is now adjourned.

Oh, Mr. Braley, I am sorry.

Mr.BRALEY. I just want to add one thing—this is the Des Moines Register's April 29, 2007 edition—to reinforce the point that Mr. Jobe just made. The title is "Biofuels Industry Branches Out, Outside Investors Flow In, Wall Street and the World has Discovered Ethanol and Iowa." I think that is why it is relevant in your district.

ChairwomanVELÁZQUEZ. Thank you.

[Whereupon, at 12:33 p.m., the Committee was adjourned.]

STATEMENT
of the
Honorable Nydia M. Velázquez, Chairwoman
House Committee on Small Business
Hearing on the Impact of Renewable Energy Production in Rural America
May 3, 2007

Entrepreneurs in this country have a huge stake in ensuring access to an affordable energy supply. Their bottom line is affected every time prices go up at the pump, natural gas spikes, or the cost of electricity rises. Today, we will hear that small businesses are not only are consumers of energy, but they are also playing a vital role in producing it.

At a time when this country is facing record energy prices, it is critical that we find alternative energy supplies to help reduce costs as well as foreign dependence. Today's panelists will outline how rural America is achieving this with the production of biofuels.

The growth in the renewable fuels industry has been a win-win for the U.S. economy. Biofuels have had an enormous impact on rural communities, while helping provide this nation with another source of clean energy.

It is an industry that small companies are at the forefront. Approximately 70 percent are small firms with most employing less than 50 people. These small businesses are not only growing themselves, but they are helping other entrepreneurs in rural America.

Small farmers are providing the necessary inputs for the production of these fuels. For ethanol, farmers provide the 2.5 billion bushels of corn each year. In the biodiesel industry, they supply the soybeans, canola, and other inputs. And they are also working to develop resources in the growing area of cellulosic ethanol. As a result, all of these have increased the demand for farmer's products.

The industry has also had a lasting imprint on the economic picture in rural America. A February 2007 study points out that 163,000 new jobs were created because of ethanol production. This includes more than 20,000 jobs in our manufacturing sector making biofuel production the single most important value-added market for farmers.

But while the growth in these industries has been strong, challenges remain. Because producing biofuels involves high-cost inputs, it has been necessary to have in place federal policies that make plants financially viable. These range from tax incentives and trade policies to usage requirements and financing assistance. Without these incentives and programs, the industry would not be where it is today.

With all this success, we still have a long way to go. Though renewable fuels have grown exponentially over the past decade, they still make up less than one percent of current U.S. production. My hope is today's hearing will focus on ways that this can be increased.

Whether it be the new and improved energy programs or maintaining existing ones, we need to do what it takes to ensure small businesses in these areas will have the chance to thrive.

The issues discussed today affect every member's district. While it may seem that there is no connection between an ethanol plant in Iowa and the price of gas in New York, the economics show otherwise. Biofuels impact those in urban districts and rural districts alike.

Today's hearing will provide the committee with a better understanding of the biofuel industry from those who understand the challenges the most. I look forward to hearing about what policies have been successful and if there are additional reforms needed to ensure future growth. The success of small companies in this sector can serve as a model for other industries. The committee can draw on this as it formulates legislation to improve the overall economic environment for small businesses.

Opening Statement	
Hearing Name	Impact of Renewable Energy Production in Rural America
Committee	Full Committee
Date	5/3/2007

Opening Statement of Ranking Member Chabot

"Thank you, Madam Chairwoman, and thank you for holding this hearing on a very important topic for small businesses around the country - closing the so-called 'tax gap'.

"The tax gap is the Internal Revenue Service's estimate of the difference between taxes voluntarily paid and taxes that should have been collected. For example, a tax gap is created when individuals underreport income or improperly claim credits or deductions. The IRS estimates that the United States collects 83.7 percent of the total taxes due (and let me state for the record that I believe taxes are far too high and should be reduced, but it is obviously important to comply with the law). After adjusting for delinquent taxes collected by existing compliance efforts, the IRS estimates that 86.3 percent of tax revenues are collected. The net tax gap is currently estimated by the IRS' National Research Program at nearly $350 billion for the tax year 2001—the last year data is available.

"Even in Washington D.C., where the words 'million' and 'billion' are tossed around liberally throughout the course of each day, $350 billion is quite a significant amount of revenue that is lost each year. Because of taxpayer noncompliance, the burden of funding our nation's commitments falls more heavily on taxpayers who willingly and accurately pay their taxes. And that's not fair. The question becomes, what do we do about it?

"Many small business groups have serious concerns regarding the IRS' plan to address the tax gap. Already struggling under the weight of massive paperwork burdens and high taxes, many of the ideas put forth by the IRS would only make it more difficult for small businesses to keep their head above water.

"While a few of the ideas put forth by the IRS have merit, the stated overall goal of increasing enforcement efforts is not the way to go. I firmly believe that the first and best thing we can do to address this problem is to simplify the tax code. The code has become a morass of niche laws and regulations that is growing increasingly complex. For small businesses that are just starting out, it can be exceptionally difficult to know exactly what to do and when to do it.

"Most small businesses pay their taxes in full and on time. However, doing so is never easy for them, as the costs of complying and the difficulty in following the tax code can be overwhelming. In 2001, the Small Business Administrations Office of Advocacy released a report on the regulatory costs faced by small firms that contained an estimate of the paperwork compliance costs. The report showed that small businesses with fewer than 20 employees spend over $1200 per employee to comply with tax paperwork, recordkeeping, and reporting requirements. This over two times the compliance costs faced by larger firms.

"Another area that the IRS has not focused on enough in their efforts is education and compliance assistance. The IRS itself estimates that roughly $148 billion of the gap

comes from underreported business and self-employment taxes. Expanding efforts to help businesses and the self-employed to prepare their returns accurately and on time would significantly reduce the gap without penalizing the honest people out there doing their best to comply.

"Make no mistake; I do believe that enforcement must be a factor in this equation. Just like any segment of the population, there will always be bad actors out there trying to skirt the system. Finding them is not easy, and we must continue to look for and penalize those who deliberately evade paying their taxes – but it must not be done at the expense of those citizens doing their best to comply with their share of the tax burden. It is going to take a balanced approach of simplification of the code, greater education and outreach efforts to individuals and businesses, and enforcement in order to make any real headway on this problem.

"Madam Chairwoman, thank you again for holding this hearing. I look forward to hearing from our distinguished panels, and to working with you, our colleagues in the House and the Administration to address this important issue."

Statement of Rep. Jason Altmire
Committee on Small Business
"The Impact of Renewable Energy Production in Rural America
May 3, 2007

Thank you, Chairwoman Velazquez, for holding this hearing today and turning the committee's attention to the burgeoning renewable fuels industry and small businesses' important role in this industry. I look forward to hearing from our expert witnesses about renewable fuels, their impact on energy production and consumption, and how small businesses are driving this revolution in energy production.

There is no doubt that increased renewable fuels production is an exciting development. Increased domestic production reduces our dependence on foreign oil, reduces greenhouse emissions, gives our farmers and ranchers a new market opportunity, and brings jobs and industry back to rural and small town America.

Small businesses are the leaders in innovation and production of renewable fuels. The jobs that these small businesses create are invaluable. In Aliquippa, Pennsylvania, in my district, Sunnyside Ethanol has recently announced its intentions to produce ethanol there beginning in 2010. Ninety new jobs will be created on ground that had lain dormant since its previous occupant, a tin mill, shuttered in 2001. This is just one example of the potential for renewable fuels.

I look forward to hearing how we can work to responsibly foster this industry and help it create a new energy future for America. Thank you, Madam Chair. I yield back the balance of my time.

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Rep. Bruce Braley
May 3, 2007

Opening Statement: Hearing on "The Impacts of Renewable Energy Production on Small Businesses in Rural America"

Thank you Madame Chairwoman, and thank you for holding this hearing.

The topic of this hearing, *the Impact of Renewable Energy Production on Small Businesses in Rural America,* is one that is so relevant to my district and the state of Iowa.

Recent spikes in gas prices have drawn attention to the need to diversify our energy supply. Renewable fuels such as ethanol and biodiesel can help bring down energy costs. In addition, they produce almost none of the emissions that cause global warming. And they are produced in the Midwest, instead of being purchased from the Middle East. That is why I was so pleased to hear George Bush strongly commit to renewables in his State of the Union address.

Iowa has a long tradition in the biofuels industry, building its first ethanol plants in the early 1980's. The state's abundant supply of corn and extensive rail network make it a natural choice for ethanol.

And as long as the state remains a leader in soybeans, Iowa will remain attractive for biodiesel plants as well.

The emergence of biofuels industries has brought renewed economic vitality to so many rural communities that were previously hit by the loss of manufacturing jobs.

According to the Des Moines Register, "Iowa now leads the nation in renewable fuels production with a capacity soon to reach 3.2 billion gallons of ethanol and biodiesel combined."

Although we have made great strides, the biofuel industry is still one that is in its infancy, and it is essential that it has the support it needs to mature, including providing federal tax incentives, increasing the Renewable Fuel Standard, and having a strong energy title in the upcoming Farm Bill. There is also a need to invest in infrastructure for the storage and delivery of biofuels.

Additionally, it is essential to provide adequate funding for higher education programs that promote renewable energy research, and production techniques and technologies. This will ensure that there is "smart growth" within the industry.

That is why I have introduced H.R. 872, *the NEW ERA Act*. This bill will create a partnership between community colleges and the renewable fuels industry. This is a win-win scenario for Iowa and other rural communities—we can create jobs and reduce our dependence on foreign oil. I'm hopeful that we can make a commitment to provide funding to train our nations bio-energy professionals.

I look forward to a discussion today that involves ideas on how to best move forward in the renewable fuels industry, as well as talking about the important relationship that exists between this industry and farmers and small businesses.

Thank you Madame Chairwoman, and thank you to the witnesses for coming in today.

Committee on Small Business
United States House of Representatives

Hearing on
The Impact of Renewable Energy Production in Rural America

May 3, 2007

Testimony of

Bob Dinneen
President & CEO, Renewable Fuels Association

Good afternoon Chairwoman Velazques and Members of the Committee. My name is Bob Dinneen and I am president of the Renewable Fuels Association, the national trade association representing the U.S. ethanol industry. Ethanol production is providing a dramatic economic stimulus across the country, particularly in rural America. It is helping to raise the price for which farmers sell their corn, provide good paying jobs where few existed before, and generate the kind of economic activity that is returning vitality to Main Streets across America.

This is an important and timely hearing, and I am pleased to be here to discuss the growth in the domestic ethanol industry, and the important role of small businesses and farmers in our nation's biofuels industry. The Energy Policy Act of 2005 (EPAct 2005) put our nation on a new path toward greater energy diversity and national security through the Renewable Fuels Standard (RFS). EPAct 2005 has stimulated unprecedented investment in the U.S. ethanol industry. Since January of 2006, when the RFS went into effect, no fewer than 15 new ethanol biorefineries have begun operation, representing some 1.2 billion gallons of new production capacity. These new gallons represent a direct investment of more than $1.8 billion and the creation of more than 22,000 new jobs in small communities across rural America. Such an employment increase is needed, particularly across rural America where small towns and family farms need the economic stimulus.

U.S. agriculture is evolving in very important ways, and rural America is primed to take advantage of these opportunities. Ethanol today is the single most important value-added market for farmers. The increased demand for grain used in ethanol processing has increased farm income, created jobs in the agricultural sector, and revitalized numerous rural communities where ethanol biorefineries have been located. The House Small Business Committee will have a critical role to play to ensure that investment opportunities for small, rural communities continue.

Background

Today's ethanol industry consists of 116 biorefineries located in 19 different states with the capacity to process more than 2 billion bushels of grain into 5.9 billion gallons of high octane, clean burning motor fuel, and more than 12 million metric tons of livestock and poultry feed. It is a dynamic and growing industry that is revitalizing rural America, reducing emissions in our nation's cities, and lowering our dependence on imported petroleum.

Ethanol has become an essential component of the U.S. motor fuel market. Today, ethanol is blended in almost 50 percent of the nation's fuel, and is sold virtually from coast to coast and border to border. The almost 5 billion gallons of ethanol produced and sold in the U.S. last year contributed significantly to the nation's economic, environmental and energy security. According to an analysis completed for the RFA[1], the approximately 5 billion gallons of ethanol produced in 2006 resulted in the following impacts:

- Added $41.1 billion to gross output;
- Created 160,231 jobs in all sectors of the economy;
- Increased economic activity and new jobs from ethanol increased household income by $6.7 billion, money that flows directly into consumers' pockets;
- Contributed $2.7 billion of tax revenue for the Federal government and $2.3 billion for State and Local governments; and,
- Reduced oil imports by 170 million barrels of oil, valued at $11.2 billion.

In addition to providing a growing and reliable domestic market for American farmers, the ethanol industry also provides the opportunity for farmers to enjoy some of the value added to their commodity by further processing. The production of ethanol has sparked new capital investment and economic development in rural communities across America. Farmer-owned ethanol plants account for half of the U.S. fuel ethanol plants and almost 40 percent of industry capacity. In fact, the National Farmers Union (NFU) recently released the findings of a study they commissioned by the University of Missouri on the concentration of agricultural markets. The study showed an increased concentration in every industry except ethanol production. The study also found that ethanol production is the only agricultural sector in which concentration has steadily decreased.

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[1] *Contribution of the Ethanol Industry to the Economy of the United States*, Dr. John Urbanchuk, Director, LECG, LLC, December, 2006.

Much of the growth of the U.S. ethanol industry to date has been supported by farmers and local residents investing their hard-earned dollars together in an ethanol biorefinery. These locally-owned facilities not only provide the jobs and economic activity that comes with ethanol production, they provide investors with a return on investment and keep the profits in the local community. Local ownership of ethanol production provides unique opportunities and great benefits. According to RFA's analysis[2], a 100 million gallon ethanol facility results in the following pacts on the local economy:

- Spend an estimated $88.2 million for goods and services;
- Use 36.4 million bushels of corn;
- Operational spending will generate $406 million for the local economy;
- Increase the size of the state economy by $223 million;
- Generate nearly 1,600 new jobs; and,
- Increase household income by more than $50 million.

This dynamic and growing industry is also empowering more of America to have a vital role in our nation's infrastructure. If a farmer in Des Moines doesn't want to invest in the local co-op, he can choose to invest in a publicly traded ethanol company through the stock market. As can a schoolteacher in Boston, or a receptionist in Seattle. Americans coast-to-coast have the opportunity to invest in our domestic energy industry, and not just in ethanol. U.S. agriculture is evolving in very important ways, and rural America is primed to take advantage of these opportunities.

There are currently 80 biorefineries under construction. With eight existing biorefineries expanding, the industry expects more than 6.6 billion gallons of new production capacity to be in operation by the end of 2009. The following is our best estimate of when this new production will come online.

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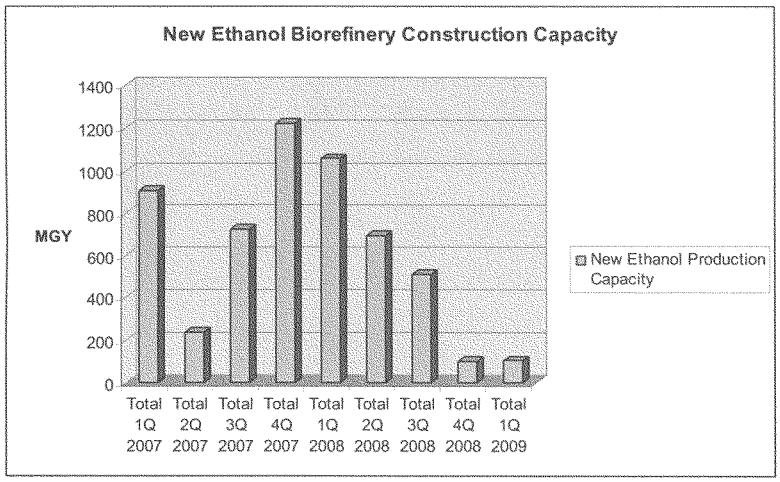
[2] *Contribution of the Ethanol Industry to the Economy of the United States*, Dr. John Urbanchuk, Director, LECG, LLC, December, 2006.



Infrastructure

Ethanol today is largely a blend component with gasoline, adding octane, displacing toxics and helping refiners meet Clean Air Act specifications. But the time when ethanol will saturate the blend market is on the horizon, and the industry is looking forward to new market opportunities. As rapidly as ethanol production is expanding, it is possible the industry will saturate the existing blend market before a meaningful E-85 market develops. In such a case, it would be most beneficial to allow refiners to blend ethanol in greater volumes, e.g., 15 or 20 percent. The ethanol industry today is engaged in testing on higher blend levels of ethanol, beyond E-10. There is evidence to suggest that today's vehicle fleet could use higher blends. An initial round of testing is underway, and more test programs will be needed.

Continued study of increased blend levels of ethanol will be an essential and necessary step to moving to higher blend levels with our current vehicle fleet. Higher blend levels would have a significant positive impact on the U.S. ethanol market, without needing to install new fuel pumps and wait for a vehicle fleet to turn over in the next few decades. It would also allow for a smoother transition to E-85 by growing the infrastructure more steadily.

Enhancing incentives to gasoline marketers to install E-85 refueling pumps will continue to be essential. There are now more than 1,200 E-85 refueling stations across the country, more than doubling in number since the passage of EPAct 2005. It has been the local, independent gasoline retailers that are largely responsible for installation of these E-85 pumps. With the major oil companies not taking a keen interest in the installation of E-85 infrastructure, it will be the small retailers that will continue to lead the effort to increase the availability of these clean, alternative

fuels to consumers nationwide. The RFA also supports the concept of regional "corridors" that concentrate the E-85 markets first where the infrastructure already exists.

Additionally, the increasing availability of E85 and flex-fuel vehicles in the marketplace is causing drivers of those vehicles to choose between gasoline and E85. These facts, according to the Federal Trade Commission's (FTC) December 2006 annual report, could mean the FTC's analysis overstates concentration and exaggerates the "likelihood of the potential for ethanol producers to engage profitably in anticompetitive behavior." The report concluded, "...that U.S. ethanol production is unconcentrated, or, at most, only moderately concentrated under the Horizontal Merger Guidelines, revealing little incentive or ability for one or more firms to act anti-competitively."

Over the past several years, the ethanol industry has worked to expand a "Virtual Pipeline" through aggressive use of the rail system, barge and truck traffic. As a result, we can move product quickly to those areas where it is needed. Many ethanol plants have the capability to load unit trains of ethanol for shipment to ethanol terminals in key markets. Unit trains are quickly becoming the norm, not the exception, which was not the case just a few years ago. Railroad companies are working with our industry to develop infrastructure to meet future demand for ethanol. We are also working closely with terminal operators and refiners to identify ethanol storage facilities and install blending equipment. We will continue to grow the necessary infrastructure to make sure that in any market we need to ship ethanol there is rail access at gasoline terminals, and that those terminals are able to take unit trains. Looking to the future, studying the feasibility of transporting ethanol by pipeline from the Midwest to the East and West coasts will be critical.

As flexible fuel vehicle (FFV) production is ramped up, it is important to encourage the use of the most efficient technologies. Some FFVs today experience a reduction in mileage when ethanol is used because of the differences in BTU content compared to gasoline. But the debit can be easily addressed through continued research and development. For example, General Motors has introduced a turbo-charged SAAB that experiences no reduction in fuel efficiency when E-85 is used. There is also technology being development that utilizes "variable compression ratio engines" that would adjust the compression ratio depending on the fuel used. Thus, if the car's computer system recognized E-85 was being used, it would adjust the compression ratio to take full advantage of ethanol's properties. RFA supports the further study of how best to optimize technologies of alternative fueled vehicles to use E-85 fuel. The study of new technologies could dramatically improve E-85 economics by eliminating or substantially reducing the mileage penalty associated with existing FFV technology.

Commercialization of New Technologies

The ethanol industry today is on the cutting edge of technology, pursuing new processes, new energy sources and new feedstocks that will make tomorrow's ethanol industry unrecognizable from today's. Ethanol companies are already utilizing cold starch fermentation, corn fractionation, and corn oil extraction. Companies are pursuing more sustainable energy sources, including biomass gasification and methane digesters. And, as stated, there is not an ethanol company represented by the RFA that does not have a cellulose-to-ethanol research program.

These cutting edge technologies are reducing energy consumption and production costs, increasing biorefinery efficiency, improving the protein content of feed co-products, utilizing new feedstocks such as cellulose, and reducing emissions by employing best available control technologies.

The technology exists to process ethanol from cellulose feedstocks; however, commercialization of cellulosic ethanol remains a question of economics. The capital investment necessary to build cellulosic ethanol facilities remain about five times that of grain-based facilities. Those costs will, of course, come down once the first handful of cellulosic facilities are built, the bugs in those "first mover" facilities are worked out, and the technology continues to advance. The enzymes involved in the cellulosic ethanol process remain a significant cost, as well. While there has been a tremendous amount of progress over the past few years to bring the cost of those enzymes down, it is still a significant cost relative to processing grain-based ethanol.

To continue this technological revolution, however, continued government support will be critically important. The biomass, bioresearch, and biorefinery development programs will be essential to developing these new technologies and bringing them to commercialization. Competitively awarded grants and loan guarantees that build upon the existing programs will allow technologically promising cellulosic ethanol projects move the industry forward become a reality.

Conclusion

The federal ethanol program has been a tremendous success, providing economic stimulus to rural America, new jobs, reducing our nation's dependence on foreign oil while improving our balance of trade, and lowered auto emissions in our nation's cities. The 109th Congress enacted several polices that clearly put our nation on a new path toward greater energy diversity and national security. The continued commitment of this Committee and the 110th Congress will all contribute to ensuring America's future energy security. Additional and more focused research and development programs, and increased funding levels for EPAct 2005 programs, will be critical to the rapid deployment and commercialization of new technologies for biofuels. Infrastructure will need to continue to expand and advance as the biofuels market does. By taking these steps, the Congress will provide a tremendous economic stimulus to small business across rural America, and take a major step toward a more sustainable energy future for all Americans.

Thank you.

Testimony of Joe Jobe before the U.S. House Small Business Committee

"The Impact of Renewable Energy on Rural America" Hearing

May 3, 2007

Thank you Chairwoman Velazquez, ranking Member Chabot, and Members of the Committee. My name is Joe Jobe, and I'm CEO of the National Biodiesel Board. I am honored to address you today. I'm here to share with you a little bit about the incredible success story that is biodiesel. Its impact on rural America and the entire country is overwhelmingly positive. It is my objective today to share with you the government policies which have stimulated that success, as well as some additional policy measures which will need to be adopted in order to allow the U.S. Taxpayer's investment to continue returning powerful benefits to the country.

As they say, behind every overnight success story is 15 years of hard work. It has been my privilege to help lead the biodiesel industry for the better part of the last decade. It is beginning to play a significant role in our nation's energy supply, our environment and our economy. The National Biodiesel Board represents farmers, state and national commodity groups, feedstock providers, some petroleum companies and biodiesel producers. Today we have 426 organizational members.

I'd like to tell you about one of those members. Mac Minaudo is one of the owners of Blue Ridge Biofuels. This Asheville, North Carolina plant is a small biodiesel producer, currently upgrading the plant to make 2 million gallons a year. Nationally, the average plant size is about 8 million gallons a year. But this particular plant is a good example of how biodiesel can contribute to a local economy. Blue Ridge Biofuels employs 10 people and plans to hire 5 more. They make biodiesel from recycled cooking oil, and part of their business involves collecting that cooking oil from 150 area restaurants. Mac tells us that if they didn't collect it and put it to good use, this waste product would likely be shipped out of state.

Blue Ridge Biofuels supplies biodiesel blends to the Asheville Municipal Airport, the University of North Carolina in Asheville, and the city's electric provider, among others. Blue Ridge has added biodiesel to 6 retail filling stations, and 4 more are on the drawing board. They also deliver Bioheat fuel to heat 500 local homes.

By the time their expansion is complete, they will have spent at least one million dollars on the plant, with most of that money staying locally. Their business is generating tax revenue and employment.

There are seven local partners who have invested in this plant. We're seeing this type of investment coast to coast…much of it at the grassroots level. Each investor has a stake in seeing the biodiesel industry continue to thrive.

You, too, are investors in the biodiesel industry. You are investors because Congress passed a biodiesel tax credit in 2004. The credit is one dollar per gallon for agri-biodiesel and 50 cents per gallon for other types of biodiesel. It took effect in 2005, and has stimulated this industry in every way we imagined. Let me put into perspective what this incentive has done for biodiesel use. In 2004, before the incentive passed, we produced 25 million gallons of biodiesel. In 2005, when the incentive took effect, we

produced 75 million gallons of biodiesel. Last year, that tripled again to approximately 250 million gallons.

But this incentive is not just about helping the biodiesel industry. This is about keeping money here at home instead of sending it abroad, and creating jobs. This is about reducing pollution, and contributing to the effort to mitigate climate change. And most importantly, this is about making America more energy independent by simply activating the resources of this nation.

I mentioned that Blue Ridge Biofuels makes biodiesel from recycled cooking oil. There are also many other plants making it from other agricultural resources such as soybean oil, other vegetable oils, and animal fats, so naturally there is a significant benefit to the farm economy.

If you take one thing away from my testimony today, I hope it is that **biodiesel delivers**. The biodiesel tax credit is a shining star in the universe of public policy. It is an example of what sound public policy can do for this nation.

When we first asked Congress to pass a biodiesel tax incentive in 2002, we said that a tax credit would do the following:

- Increase our nation's capacity to produce fuel
- Diversify our nation's energy supply
- Create jobs
- Stimulate rural and urban economies
- Benefit the U.S. farm economy through increased prices
- Send us down the path of creating sustainable, long-term demand for vegetable oils and animal fats
- And benefit taxpayers.

The biodiesel tax credit has delivered on *every one* of those promises.

Promise number 1: The biodiesel tax incentive has increased our nation's capacity to produce fuel and has diversified our energy supply. In 2004, when Congress passed the original biodiesel tax incentive, the U.S. biodiesel industry had 22 plants with a capacity to produce 157 million gallons of fuel. The biodiesel industry told Congress that with a tax incentive to make biodiesel more cost-competitive, new plants would spring up throughout the nation, adding badly-needed fuel refining capacity to the nation's energy supply.

The tax incentive gave the industry confidence to invest in building new plants from the ground up. Today, the industry has added significant new energy-producing capabilities. Biodiesel producers have grown more than 4-fold, with 105 plants capable of producing 864 million gallons of domestic biodiesel from coast to coast. That means the biodiesel industry has the capacity to displace 864 million gallons of diesel produced from foreign oil. More than one billion additional gallons of capacity is also reported to be under construction.

Additionally, these biodiesel refineries are small, scattered throughout the United States, and are therefore less vulnerable to storms like Hurricane Katrina and terrorist attacks.

Promise number 2: The biodiesel tax incentive has created jobs. Those 105 plants churning out biodiesel today employ thousands of people in the U.S. economy. Economic analysis shows that biodiesel production will conservatively create a projected 40,000 new jobs in all sectors of the economy during the next few years.

Promise number 3: The biodiesel tax credit stimulates rural economies and provides long-term demand for vegetable oils and animal fats.

Economic analysis shows that America's biodiesel industry will add $24 billion to the U.S. economy between 2005 and 2015. Many of the 40,000 jobs created by this industry will be in rural areas, breathing new life into some of the hardest-hit economies in recent years.

The incentive has also positively impacted agriculture prices. The average price received by soybean farmers in fiscal year 2005 was $5.89 per bushel. Through the first six months of fiscal year 2007, farmers have received an average price of $6.31 per bushel. Increased prices have not only raised farm revenues, they have also helped to minimize farm program payments, saving taxpayer dollars. Oilseed program payments will be greatly reduced thanks to the biofuels industry, virtually eliminating loan deficiency and counter-cyclical payments this year.

Promise number 4: The biodiesel tax credit benefits taxpayers. And here's where I hope you will see that your investment has really paid off. The incentive will keep $13.6 billion in America that would otherwise be spent on foreign oil. Additional tax revenues from biodiesel production will MORE THAN PAY for the federal tax incentives provided to the industry. Assuming that the biodiesel tax credit is extended past 2008, this program would cost a total of $3.5 billion. But the industry will generate $8.3 billion of new revenue for the Federal Treasury during that time. That's a positive net balance of $4.8 billion.

As I said, **biodiesel delivers**. But this tax incentive is set to expire in 2008, and it is vital to our young industry that it be extended or made permanent. We want to see its benefits continue to multiply, and I hope you do, too.

We have a vision of "5 by 15." That's to say that biodiesel will make up 5 percent of the diesel fuel market by 2015. That may not sound like a lot, but it is actually a very significant number. If 5 percent biodiesel were added to all of today's on-road diesel in the U.S., it would displace 1.85 billion gallons of diesel. Here's how I like to put that number into perspective: of the amount of crude oil America imports from Iraq today, the same amount, 1.85 billion gallons, is produced into diesel fuel.

Now, I have shared with you many of the ways America has benefited from strong energy policy, but amidst all of the positive news and investment, there are two potential threats that the biodiesel industry fears could, in a short timeframe, severely undermine the economic and energy security benefits from a growing biodiesel industry.

The NBB has launched an aggressive effort to head off a potential abuse of the federal tax credit. Based on discussions with federal tax authorities, blenders and shippers, there is a suspicion that claims for the tax credit may have been submitted or are intended to be submitted in a way that would constitute an improper use of the tax credit. Anecdotal evidence suggests that foreign companies may be sending, or planning to send, tanker shipments of biodiesel into U.S. ports, adding a small amount of diesel fuel, claiming the blenders credit on all biodiesel gallons in the shipment, and then exporting the shipment outside the United States.

This type of "re-exporting" activity was clearly not intended by the legislative policy and is an inappropriate use of the tax credit. The NBB believes that the credit should not be available for biodiesel involved in such a "re-exporting" transaction under the existing statutory and regulatory provisions.

Taxpayers should be advised that the NBB will aggressively pursue legislation and/or regulatory rulemaking which would clarify any ambiguity and clearly state that biodiesel involved in such re-exporting transactions is not eligible for the credit. Entities should be aware the nature of some legislative vehicles could potentially be retroactive to the date of original enactment.

The second significant disconcerting policy development regards a recent ruling by The Internal Revenue Service of the Energy Policy Act's Renewable Diesel Tax Credit provision (section 1346 of the Act). The renewable diesel tax credit of $1 per gallon was added to the 2005 Energy Act. According to the provision's sponsor, the credit was intended to help stimulate a class of technology referred to as thermal depolymerization, which turns waste material such as turkey offal into a boiler fuel. This technology had the potential to provide the added public health benefit of disposing of contaminated animal carcasses in the case of disease outbreaks such as avian flu or mad cow disease. The provision's sponsor has further stated that it was never intended as a subsidy for conventional refinery processes. However, large integrated petroleum companies aggressively lobbied the U.S. Department of Treasury in order to get a broad interpretation of the term "thermal depolymerization." Treasury's ruling made the term so broad as to include a volumetric credit for the co-processing of renewable materials with petroleum as part of the traditional refining process using existing infrastructure. The statutory language states that in order to qualify for the renewable diesel credit, the finished renewable diesel (not the blended co-processed material) must meet the EPA's fuel registration requirements and the commercial specification for diesel fuel or boiler fuel. Treasury's ruling effectively bypassed those essential requirements. In fact, Treasury's ruling effectively by-passed the legislative and regulatory process. The petroleum industry has not provided any significant data about emissions, biodegradability, toxicity, lifecycle energy benefits, health effects, operability, performance, durability, or compatibility with infrastructure or vehicles. They were completely given a pass on all regulatory requirements simply by exploiting an ambiguity in the tax code.

It should be noted that the National Biodiesel Board supports second generation biofuels, new technology and innovation, as long as the new technology is proven and goes through the proper legislative and regulatory process in order to achieve sound public policy. However, the recent IRS ruling with regard to renewable diesel will allow a large subsidy of conventional petroleum refinery capacity that will not represent second generation biofuel. That policy was achieved by exploiting an ambiguity in the tax code rather than going through the appropriate legislative process. Moreover, we are not opposed to the petroleum industry replacing some of its capacity with renewable components. However, we do not believe that they should receive $1 per gallon to do so. There exists a $.50 per gallon alternative fuel tax credit from the 2005 Transportation Bill, which would be available to them. It is important to note that we have found no references in literature where anyone ever referred to conventional petroleum refinery processes as "thermal depolymerization" until there was a $1 per gallon tax credit available.

The result is bad energy policy, agriculture policy, trade policy, economic policy, environmental policy and most of all bad fiscal policy. The policy will result in taking money from U.S. taxpayers and giving it to a few of the largest, most profitable companies in the world simply for buying up animal fats and vegetable oils and blending it off in low percentages in their existing conventional petroleum refinery infrastructure. Unlike the biodiesel industry, the petroleum industry has not built a new refinery in the U.S. in over 30 years. Maximized petroleum refinery capacity serves as a major bottleneck to our energy supply, making the nation especially vulnerable to supply disruptions. The renewable diesel ruling will

result in large payments for some activity that does not significantly expand our refinery capacity and therefore will not add to our fuel supply. The current policy will likely not add significant investment to the economy, jobs, or rural development. It is likely to send dangerous signals to foreign countries which engage in non-sustainable agricultural practices, and will stimulate imports from those areas. It is likely to result in an overall reduction of refinery capacity because it will bid up the price of feedstocks for the biodiesel industry to economically operate, and will diminish many of the gains returned by the government's previous investment in the biodiesel industry. And despite all of these public dis-benefits that were never debated by Congress, it is likely to cost the federal government billions of dollars.

Some have argued in support of this ruling by saying that anything which displaces some imported crude oil is a good thing, and that Congress should not pick winners and losers. While this makes for a good sound bite, it makes for simplistic and short-sighted public policy. The best example of this kind of thinking is the country's experience with MTBE. This was a product which was largely given a pass on some regulatory requirements and rushed in as part of a flawed public policy. The result was a number of unintended consequences including the contamination of some ground water supplies and a cost of billions of dollars to the economy. In short, giving oil companies the same dollar-per-gallon incentive that biodiesel receives could severely undermine our progress, and those great promises that biodiesel has delivered. The "renewable diesel" that will result in many cases from the recent IRS ruling won't deliver on any of those promises, not relative to taxpayer return on investment, not in the long-term.

This is a question about what makes sound energy policy: do you take limited government resources and invest them in new energy technologies built from the ground up, where Americans have leveraged their family livelihood into equity? Or do you take those dollars and give them to large, mature, highly profitable oil companies that will use those dollars for their conventional petroleum processes?

We wondered what taxpayers might have to say about that. So we commissioned a study asking taxpayers whether oil companies should benefit from the same level of government support for renewable diesel as for biodiesel. By a margin of 3 to 1, Americans said that of the two fuels, only biodiesel should receive that level of government support. They said this even while acknowledging that renewable diesel may replace some foreign oil. Almost 8 out of 10 Americans also said the Congress's decision to provide a tax incentive for biodiesel was a good one.

We thank Members of Congress for the wisdom to encourage our industry. We urge you to help keep this momentum going by extending the biodiesel tax credit and by closing the two loopholes in the tax law that I have shared with you today. I can't overstate the urgent nature of the action and leadership that is required here. I've shown you how biodiesel delivers: now we look to Congress to deliver solutions for what threatens to unravel the progress this young biodiesel industry has made in building homegrown energy. Since energy security and national security are inextricably linked, to keep the biodiesel industry strong is to keep America strong.

Thank you.

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Committee on Small Business
U.S. House of Representatives
Hearing on
The Impact of Renewable Energy Production in Rural America
Testimony of
John M. Urbanchuk
Director, LECG LLC
May 3, 2007

Good morning, Ms. Chairwoman and Members of the Committee. My name is John M. Urbanchuk and I am a Director of LECG LLC, a global expert services consulting firm.

I am pleased to have the opportunity to speak with you about the significant economic impact the renewable energy industry is making on small businesses in rural America. I am an agricultural economist and have worked in support of the renewable fuels industry for the better part of the last 25 years. A major focus of my work has involved examining the economic contribution the biofuels (ethanol and biodiesel) industry has made to the economies of the U.S., individual States, and local communities in which they are located.

The numbers are truly impressive.

- From a cottage industry that produced 175 million gallons in 1980, the American ethanol industry produced nearly five billion gallons last year. According to the Renewable Fuels Association, ethanol is being manufactured in 116 plants located almost exclusively in rural communities in 20 States.

- In less than a decade, biodiesel production has increased from less than 500,000 gallons to 250 million gallons in 2006. According to the National Biodiesel Board biodiesel is being produced in 105 plants located in 30 States. Biodiesel plants are located both in urban and rural communities.

- The economic contribution of the biofuels industry is substantial. Last year the ethanol industry spent $6.7 billion on raw materials, other inputs, goods and services while biodiesel

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industry spending exceeded $300 million. The largest share of this spending was for corn used as the raw material to make ethanol and soybean oil and fats used to produce biodiesel. These are largely the output of rural communities. The remainder of spending was for a wide range of inputs such as industrial chemicals; electricity, natural gas, and water; labor; and services such as maintenance, insurance, and general overhead.

- The spending associated with biofuels production and investment spending on new plant capacity represents the purchase of final demand of other industries and circulates throughout the entire economy several fold. As these dollars circulate they stimulate aggregate demand, support the creation of new jobs, generate additional household income, and provide tax revenue for government at all levels.

- On a macroeconomic level the biofuels industry contributed nearly $24.1 billion to the nation's Gross Domestic Product in 2006; supported the creation of more than 170,000 jobs in all sectors of the economy; and put an additional $7 billion into the pockets of American consumers.

- These impacts will increase as the industry grows, diversifies into new technologies and feed stocks, and develops through 2017 and beyond.

Impacts of small business and rural communities

Small business benefits directly from the renewable fuels industry. Many of the goods and services required to produce biofuels are provided by small businesses located in or near the communities where production facilities are located. These range from corn and other grains grown by local farmers and marketed by farmer-owned cooperatives or other locally owned suppliers to the full range of business, administrative, and maintenance support services, and machinery and equipment provided by local firms.

Rural communities also benefit form the indirect impacts of the operation of biofuels production as the wages paid to employees of the biofuels plant and the wages of supplying firms are spent in local communities.

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A good example of this impact is experience of farmer-owned ethanol plants. One of the most significant contributions for rural economic development over the past twenty years has been the emergence of farmer-owned ethanol and biodiesel plants. In 1991 the majority of ethanol plants and production were corporate owned and operated. Farmer-owned cooperatives accounted for a small share of ownership and production. By comparison today nearly half of all ethanol plants are owned and operated by farmer cooperatives or limited liability companies (LLC) and these plants account for about 40 percent of total ethanol production.

Since a farmer-owned ethanol plant is literally a member of the community, the full contribution to the local economy is likely to be as much as 40 percent larger than the impact of an absentee owned corporate plant. In many respects the economic impact of a farmer-owned and absentee-owned ethanol plant on the local community are similar. There are, however, two significant differences that increase the impact of a farmer-owned plant.

- The share of expenditures for operation of a farmer-owned ethanol plant derived in the local community is likely to be larger than that of an absentee owned plant. For example, virtually all of the accounting, administrative, and marketing functions will be provided locally for a farmer-owned plant while many of these functions may be centralized off-site for corporate plants. Financing of a farmer-owned plant is more likely to be provided by local commercial or cooperative banks.

- Farmers will sell their corn to a local ethanol plant regardless of ownership and benefit from the larger local market. However, farmer-owners of a cooperative or LLC ethanol plant will participate in the profits of the ethanol plant through dividends. The distribution of dividend payments represents additional income to the individual farmer-owner and his family. Many cooperatives retain only enough revenue to cover contingencies and pay out a large share of profits. This additional income will circulate through the local community providing a potentially large impact on consumption and investment.

We estimated the differential impacts of farmer-owned ethanol plants to a corporate or absentee-owned plant by estimating and comparing the costs and returns for a typical 50 MGY dry mill ethanol plant. The economic impacts were estimated by applying the appropriate final demand

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multipliers for output, earnings, and employment for the relevant supplying industry calculated by the U.S. Bureau of Economic Analysis (BEA) to estimates of spending for ethanol production for each type of plant ownership.[1]

The costs of producing ethanol were estimated for a 50 MGY dry mill ethanol plant using current data for corn, distillers dried grains (DDG), natural gas, enzymes, yeast and chemicals, electricity, and wage rates.[2] An ethanol plant of this size will produce 51.5 million gallons of denatured ethanol annually from 18.1 million bushels of corn. In additional to ethanol, the plant will produce 154,500 tons of DDG. As shown in Table 1, the cost of producing ethanol in a dry mill plant currently totals $1.65 per gallon.

Table 1
2006 Operating Costs
50 MGY Dry Mill Ethanol Plant

OPERATING COSTS	**Units/Gal**	**Unit Price**	**Cost Mil $/yr**	**$/gal**
Raw Materials				
Corn (bu)	0.364	$3.01	$54.73	$1.09
Enzymes (lb)	0.035	$1.02	$1.79	$0.04
Yeast & Chemicals (lb)	1.126	$0.02	$0.84	$0.02
Denaturant (gal)	0.030	$1.60	$2.40	$0.05
Electricity ($/KWh)	0.800	$0.06	$2.31	$0.05
Natural Gas ($/MCF)	0.036	$7.78	$14.00	$0.28
Water (thou gal/bu)	0.010	$0.37	$0.18	$0.00
Waste water (thou gal/bu)	0.008	$0.50	$0.19	$0.00
Direct labor + benefits ($.032/gal)			$1.600	$0.03
Maintenance & Repairs ($.026/gal)			$1.300	$0.03
GS&A ($.06/gal)			$3.000	$0.06
Total Costs			**$82.347**	**$1.65**

Source LECG LLC

[1] The multipliers used in this analysis are the detailed industry RIMS II multipliers for the United States estimated by the Bureau of Economic Analysis, U.S. Department of Commerce.
[2] Average prices for corn and DDG from USDA ERS. Energy prices from EIA and wage rates from the Bureau of Labor Statistics.

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Corn accounts for 66 percent of operating costs while energy (electricity and natural gas) to fuel boilers and dry DDG represents nearly 20 percent of operating costs. In order to estimate the economic impact of this ethanol facility we made several key assumptions:

- The capital cost to build the 50 MGY plant is $100 million ($2.00 per gallon of rated capacity). The capital cost is depreciated over 15 years.
- The capital structure is 60 percent debt (40 percent equity) financed over 10 years at 8.5 percent. We assume that the debt is borrowed locally by the farmer-owned cooperative and outside of the region for the absentee owner or corporation.
- Expenditures for administrative, overhead and marketing expenditures (G&A) are made locally for the farmer-owned plant. The corporate plant provides most of these as centralized services from outside the local community.
- The farmer-owned cooperative retains 20 percent of net margin as retained earnings and pays the remainder to farmer-owners as dividends.
- The dividends paid to farmer-owners represent additional income that is spent and invested largely in the local community.

The spending associated with ethanol production circulates throughout the local economy several fold. Consequently this spending stimulates aggregate demand, supports the creation of new jobs, generates additional household income, and provides tax revenue. The size of the impact is directly linked to plant size and depends on the relationship between the ethanol plant and the local economy, specifically whether the plant is locally owned.

A 50 MGY ethanol plant makes a substantial contribution to the economy of the community in which it is located. This contribution is larger if the expenditures for goods and services to operate the plant are made in the local community. For purposes of this analysis we assume that all grain feedstock is procured from local farmers (i.e. corn produced within a 100 mile radius of the plant). In the case of a farmer-owned ethanol cooperative member farmers will most likely have supply agreements with the plant under which they sell a specified number of bushels at a specified price. This assures a market for farmers and a supply of feedstock for the ethanol plant. Members also may

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agree to buy DDG from the plant. Water, electricity, labor, administrative services, property taxes and insurance also are likely to be procured locally.

We expect that the local spending for a farmer-owned ethanol plant is slightly larger than for an absentee-owned plant. A corporate owned plant is likely to provide centralized administrative services, provide debt service, and supply inputs such as enzymes, yeast and chemicals which may be centrally purchased. As shown in Table 2, a 50 MGY farmer-owned ethanol plant is projected to spend $5.8 million more in the local community than a corporate or absentee-owned plant. This results in a 6.6 percent larger contribution to State Gross Domestic Product.

Table 2
Local Spending and Economic Impact from Ethanol Operations

	Absentee Owned (Mil 2006$)	**Farmer Owned (Mil 2006$)**	**Difference (Mil 2006$)**
Total Expenditures	**$78.22**	**$84.02**	**$5.81**
Gross Output	$224.0	$238.7	$14.7
GDP	$123.2	$131.3	$8.1
Household Income	$44.0	$48.2	$4.1
Employment	1,332	1,427	$94.8

The most significant difference in the economic impact of a farmer-owned ethanol plant comes not from operations but from the impact of the distribution of profits from ethanol and DDG sales to farmer members. These dividends represent the distribution of shareholder equity and are a significant addition to income and the local economy. As outlined in Table 3, a 50 MGY ethanol plant operating under the assumptions described above is expected to generate $28 million in net profit (or net margin) this year. Assuming 20 percent of net revenue is retained $22.5 million will be available for distribution to farmer-owners.

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Table 3
Income Statement, 2006
50 MGY Dry Mill Ethanol Plant

REVENUE	Mil $/yr	$/Gal
Ethanol	$103.00	$2.00
DDG	$17.77	$0.35
Total Revenue	**$120.77**	**$2.35**

OPERATING COSTS	**$82.35**	**$1.60**
EBITDA	**$38.43**	**$0.75**
Depreciation	$6.67	**$0.13**
Interest	$3.65	**$0.07**
NET MARGIN	**$28.11**	**$0.55**
Retained Earnings	$5.62	**$0.11**
Available Dividend	**$22.49**	**$0.44**

The distribution of profits represents additional income for farmer-owners of the cooperative, most of which can be expected to remain in the local economy. To estimate the potential impact of the dividend flow, we assumed a conservative marginal propensity to consume of 0.36 meaning that 36 percent of the additional income represented by dividend payments would be spent and the remainder saved and invested.[3] While most, if not all of the savings and investment will directly impact the local economy as farmers utilize local financial institutions, not all of the consumption or spending will be made locally. To reflect this we assumed that 70 percent of spending will directly impact local retailers.

This additional economic activity enhances the impacts of the ethanol plant operations and is summarized in Table 4.

[3]see Lawrence Seidman and Kenneth Lewis "What Has Been Learned Since 2001 About Counter-cyclical Tax Rebates". Eastern Economics Association 2005 Conference Paper. February 2005

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Table 4
Economic Impact of Cooperative Dividend Payments

	Absentee Owned (Mil 2006$)	Farmer Owned (Mil 2006$)	Difference (Mil 2006$)
Impact from Dividends			
Dividend income	0	$22.5	
Share to consumption	0	36%	
Share to savings	0	64%	
GDP	0	$39.9	
Household Income	0	$25.0	
Employment (jobs)	0	553	
Total Impact			
GDP	$123.2	$171.2	$48.0
Household Income	$44.0	$73.2	$29.1
Employment (jobs)	1,332	1,980	648

The economic impact of the spending and investing of the dividend income by farmer-owners and their families adds nearly $50 million more to the local economy and generate an additional $29 million in household income. The economic activity resulting from the injection of dividend revenue from the farmer-owned ethanol plant to the community will support the creation of an additional 648 jobs in the entire economy. These jobs will be largely be concentrated in the sectors that support increased consumption such as retailing and services, but will also include jobs in manufacturing to the extent that the local economy produces goods supplied locally; jobs in agricultural support industries; and the finance, real estate and insurance sector.

Broader economic benefits

It is clear that the renewable fuels industry provides a substantial benefit to rural communities by creating demand for the goods and services provided by local small businesses and generating valuable output. These benefits are not restricted or limited to the ethanol and biodiesel industry. Development of other alternative energy industries such as coal to liquid (CTL) fuels and cellulose conversion also will provide significant direct and indirect benefits, particularly as they are more likely than not to be located in rural communities.

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However, perhaps the most significant contribution of the renewable fuels and alternative fuels industry has been in revitalizing and broadening the economic base of rural communities. These industries create manufacturing sector jobs and represent a small but important reversal in the long-term trend of a declining manufacturing sector in the American economy. While we continue to export manufacturing sector jobs in other industries, we are building a strong and growing base of new manufacturing sector jobs in the renewable fuels and alternative energy sector.

Moreover, the renewable fuels and alternative energy industries are using domestically produced raw materials and inputs. American workers in ethanol, biodiesel, cellulose, and eventually CTL firms are producing energy from corn, soybean oil and coal produced by American farmers and miners that displaces oil and petroleum largely imported from increasingly unfriendly foreign suppliers.

Conclusion

The renewable fuels and alternative energy industries are creating substantial demand for small and locally owned businesses in the communities where they operate. This expanded economic activity generates income and supports the creation of new jobs that provide opportunities for our youth. Many rural communities have found that the economic opportunities created by the renewable fuels industry has helped stem or even reverse the flight of young people.

The outlook for the renewable fuels and alternative energy industries appears bright. There is growing awareness of the strategic perils for America from a growing dependence on imported energy. The Administration has announced an aggressive program to promote the development and use of renewable fuels and alternative energy over the next decade and there appears to be bipartisan support for policies that will improve energy independence.

It is important to maintain existing Federal and State incentives for the biofuels industry to allow them to continue to grow and mature. Additionally, new technologies such as cellulose and CTL will continue to require support for research and development so they can gain a foothold and have the opportunity to flourish. Without these incentives many of the benefits to small business and rural communities that have been generated by the renewable fuels industry may be at risk.

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TESTIMONY OF LEON GRAVES
On behalf of the
National Council of Farmer Cooperatives
Before the House Small Business Committee
Washington, DC
May 3, 2007

"The Impact of Renewable Energy Production in Rural America"

Thank you Chairwoman Velazquez, Ranking Member Chabot and members of the Committee. My name is Leon Graves. I am the Director of Operations and Regulatory Affairs for Dairy Marketing Services (DMS) and until 1995, a dairy producer. DMS is a joint milk marketing venture based out of Syracuse, NY which is owned by Dairylea Cooperative Inc., the Northeast Council of Dairy Farmers of America (DFA) and St. Albans Cooperative Creamery, Inc., St. Albans, VT. Dairylea Cooperative and DFA are members of the National Council of Farmer Cooperatives (NCFC), who I am here representing today.

The National Council of Farmer Cooperatives (NCFC) is the national trade association representing the nearly 3,000 farm cooperatives across the United States whose members include a majority of our nation's more than 2 million farmers. Farmer cooperatives offer the best opportunity for America to realize the farmer-focused ideal of an enduring competitive agriculture industry.

In addition to helping meet the food, feed, fuel and fiber needs of consumers at home and abroad, cooperatives provide farmers with the opportunity to improve their income from the marketplace, capitalize on new market opportunities, and compete more effectively in a changing global marketplace. You might be surprised to learn that farmer cooperatives provide consumers with many of the brands they have grown up on: SunMaid raisins, Welch's grape juice and Sunkist oranges, to name a few.

I serve on NCFC's Farm Bill and Conservation & Environment Committees and am also on their Waste-to-Wealth Task Force, a group working to identify the opportunities and obstacles for the conversion of cow manure into renewable energy like liquid fuel, gas and electricity. I appreciate very much the opportunity to appear before you and to share my views on the renewable fuels industry and its impact on rural America.

ETHANOL & BIODIESEL

NCFC members refine conventional fuel and grow, process and blend renewable fuels. In the last few years, a number of our member cooperatives have made substantial commitments to bio-energy by investing in ethanol and biodiesel facilities and building additional terminal storage for renewable fuels in strategic locations.

Farmer owned cooperatives and limited liability companies (LLCs) account for nearly half the ethanol production in the United States. It is this farmer-ownership and local decision making in the industry that will ensure that rural America -- and not just the short-term investors of Wall Street -- benefit from this country's new interest in domestically produced renewable fuels.

According to a September 2006 report for the National Corn Growers Association authored by fellow panelist, Mr. John Urbanchuk, *"Since a farmer-owned cooperative ethanol plant is literally a member of the community, the full contribution to the local economy is likely to be as much as 56 percent larger than the impact of an absentee owned corporate plant."* [1] This is attributed to many factors, including the fact that administrative and market functions are provided for locally, as opposed to a corporate headquarters in a non-rural area. Also, profits are distributed back to the cooperative's farmer-owners, who spend that increased income in their local communities, generating new jobs and increased tax revenue and decreasing the migration to larger urban areas.

THE FARMER-OWNED COOPERATIVE

Cooperative businesses are based on three fundamental operating principles: governance by farmer members, ownership of the business by those who use it, and the return of earnings to members in proportion to their use of the cooperative.

Beginning in the mid-nineteenth century, cooperatives have played a role in agriculture and rural America. In recent history, cooperatives have been used by producers to respond to the rapidly changing forces that affect their livelihoods. Cooperatives not only provide access to markets not otherwise reached, but also provide member-owners with an opportunity to negotiate better prices for their commodities and improve their income from the marketplace.

It is also important to note that farmer cooperatives, being farmer owned and controlled, are really a collection of individual small businesses. While farmer cooperatives themselves can vary in size, the real difference between a large and small cooperative is just that the larger cooperative generally has more farmer members.

For rural communities, cooperatives are much more than just a local employer. Coops add significant value to the tax base through its own operations and the value it brings to its members' operations. They often foster an attitude of self-initiative in a community. Because of their contribution to the local economy, a cooperative may trigger the need for new housing and improvements in local school and other community facilities. Cooperatives may also increase the unity of a community by providing local meeting places and a greater sense of community pride. In many rural

[1] Urbanchuck, John, *Economic Impacts on the Farm Community of Cooperative Ownership of Ethanol Production*, September 2006, p.1

areas, the cooperative has become the social and economic hub of a community, sponsoring the local little league team and creating scholarships for deserving high school students.

MANURE AS A FEEDSTOCK FOR RENEWABLE ENERGY

Cooperatives play an especially vital role in the dairy industry as nearly 80% of all milk produced in the U.S. is marketed through a cooperative. In order to provide the greatest possible benefits and opportunities for our dairy producers, as well as to provide environmental benefits, NCFC has been investigating opportunities to allow animal agriculture a stake in the renewable fuels industry by maximizing the use of manure as a feedstock for renewable energy.

According to USDA's Chief Economist, the 1.6 billions of ethanol produced in 2000 consumed 6% of all corn harvested. In 2006, an estimated 5 billion gallons of ethanol were produced, accounting for 20 percent of the 2006 corn harvested. As the renewable fuel industry increases profitability for corn farmers, those higher corn prices translate into higher feed prices for the livestock and poultry sector. Our cooperative has estimated that the cost of production for our dairy farmers has increased by $2.00 per hundredweight due to increased feed and energy costs. Federal resources and funding are desperately needed to develop the waste to energy market in order to restore profitability, deal with waste issues, and participate in the renewable energy boom.

The general technology currently exists to convert the two billion tons of manure derived yearly from cattle, pigs and chickens into fuel, gas and electricity. What the industry still lacks is affordable technology for all-sized operations and government support in the form of further research, grants, loans and tax incentives specific to manure conversion to energy to drive production and the marketplace.

To produce renewable energy from manure, a producer must purchase and install a costly anaerobic digester. Anaerobic digestion harnesses and contains methane gas, through the naturally occurring process of anaerobic decomposition. This methane gas can be scrubbed into pipeline quality natural gas, used to generate electricity, or can be converted into a liquid fuel. According to the U.S. Environmental Protection Agency (EPA), there are currently 101 operational digesters in the U.S. and 84 digesters in the planning or construction phases.

NCFC is working with the National Rural Electric Cooperative Association (NRECA) to develop a template for the generation of electricity from manure, including wheeling the electricity onto the grid and ensuring dairy producers fair compensation. We are hoping to identify where the incentives need to be and in what form and in what amount. We hope to be able to provide Congress with this information so that you can support this effort much like you have supported the incentives which helped build the ethanol and biodiesel industries.

According to information gathered from the EPA's AgStar Program[2], anaerobic digestion is technically feasible on about 7,000 swine and dairy operations in the U.S. which could generate up to 6 million megawatt-hours (MWh) of electricity each year[3]. According to the U.S. Environmental Protection Agency, an average home uses approximately 11,000 kilowatt-hours (kWh)/year. Potentially, electricity generated from these swine and dairy operations could power approximately 550,000 homes annually. Madame Chairwoman, that is the equivalent of providing electricity to the homes in New York's capital of Albany for nearly thirteen years, or to the homes in the Nation's capitol for two years. If the technology were more affordable and more applicable to smaller operations, the amount of renewable electricity produced would have an even greater impact. Additionally, at a fair market price of $.08 per kWh, this could add millions of dollars annually to the incomes of U.S. dairy and swine producers.

There has been increased interest and concern over global climate change. Eighty-four percent of New York State's emissions come from fossil fuel combustion for home heat, electricity use and transportation. Agriculture can reduce its greenhouse gas emissions to offset some of those from the fossil fuels used by these sectors. Specifically, dairies with digesters could offset use of coal power, reducing greenhouse gases that would have otherwise been emitted. These dairy producers and their cooperatives could then also become eligible for a carbon credit, which could be traded on the Chicago Climate Exchange or directly to an interested buyer.

It has been estimated that a dairy producer's annual farm income could increase between nineteen and twenty-nine percent from the use of an anaerobic digester when one accounts for the revenue generated from producing renewable energy and trading carbon credits and the cost reduction from farm utility use, among other factors.

Madame Chairwoman, as you know, the dairy industry is the largest agricultural sector in the state of New York, accounting for one-half of the state's total agricultural receipts. As the nation's third leading producer of milk and other dairy products, we are anxious to apply these technologies to all our farms, maximize environmental benefits and realize a higher income to dairy producers across the state.

More work is needed in this area both by the NCFC and other organizations, and by researchers and policy makers at the local, state and federal level. We cannot ignore the fact that by using manure as a feedstock to produce gas, fuel or electricity, we are positively addressing many very important issues. First, we will be increasing this country's ability to produce its own energy. Second, we will be addressing an expensive environmental management issue which includes odor and waste water concerns. Third, we will be capturing methane gas and decreasing carbon dioxide

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[2] The AgSTAR Program is a voluntary effort jointly sponsored by the U.S. Environmental Protection Agency (EPA), the U.S. Department of Agriculture, and the U.S. Department of Energy. The program encourages the use of methane recovery (biogas) technologies at the confined animal feeding operations that manage manure as liquids or slurries. http://www.epa.gov/agstar/.

[3] U.S. Environmental Protection Agency, *Market Opportunities for Biogas Recovery Systems: A Guide to Identifying Candidates for On-Farm and Centralized Systems*, http://www.epa.gov/agstar/pdf/biogas%20recovery%20systems_screenres.pdf (2004)

emissions. This is clearly a win-win for livestock and poultry producers and consumers in urban areas alike.

CONCLUSION

Farmer-owned cooperatives are playing a vital role in maintaining and strengthening the rural economy as well as the local communities in which they operate. While historically having been organized to negotiate for fair prices and provide access to markets, cooperatives are now also a vital player in this country's quest for energy self-dependence and in ensuring that producers and rural America benefit. Ethanol, biodiesel, and manure conversion, along with conservation, are important tools in securing a more affordable and accessible domestic renewable energy supply.

We appreciate the opportunity to share with the committee ways in which agriculture and cooperatives are investing in renewable energy. We appreciate this committee recognizing the contribution that small businesses in rural America, like farmer-owned cooperatives, are having in the renewable energy industry and look forward to working with you in the future.

NATIONAL CATTLEMEN'S BEEF ASSOCIATION
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May 3, 2007

The Honorable Nydia M. Velázquez
Chairwoman
U.S. House Small Business Committee
2361 Rayburn House Office Building
Washington, DC 20510

Dear Chairwoman Velázquez:

The National Cattlemen's Beef Association (NCBA) appreciates the opportunity to present our thoughts on the 'Impact of Renewable Energy Production in Rural America'. Producer-directed and consumer-focused, NCBA is the largest and oldest organization representing America's cattle industry, and it is dedicated to preserving the beef industry's heritage and future profitability through leadership in education, marketing and public policy.

The entrepreneurial spirit is no where more evident than in rural America, and cattle producers are an important contributor to the economic diversity of small towns and communities throughout the United States. However, today's cattle producers are facing an increasing number of challenges to their livelihood ranging from environmental issues to international trade and animal health concerns. Even with these issues weighing on their minds, producers have been particularly concerned about the impact of renewable fuels on the prices of feed grains and livestock. Given the incredible expansion that has recently taken place within the corn-based ethanol industry, these concerns carry with them the potential for a significant financial shock to U.S. cow-calf producers.

While elimination of the oxygenate methyl tertiary butyl ether (MTBE) has played a significant role in the rapid development of ethanol production, a number of other factors have accelerated the investment, including: the Volumetric Ethanol Excise Tax Credit (VEETC) of $0.51/gal. provided to blenders of ethanol, a $0.54/gal. tariff on imported ethanol, high crude oil and gasoline prices, and the Energy Policy Act of 2005 (EPAct) with its Renewable Fuels Standard (RFS) mandating 7.5 billion gallons of renewable fuels production per year by 2012.

Congressional actions taken to stimulate growth in the renewable fuels sector have certainly achieved their objective. As of April 30th the Renewable Fuels Association (RFA), the national trade association for the U.S. ethanol industry, states that the United States has 116 operational ethanol plants with the capacity to produce 5.9 billion gallons of ethanol per year. Additionally, RFA reported 81 new plants under construction, bringing total expected ethanol production capacity to nearly 12.5 billion gallons of

ethanol per year. Once operational, these 197 ethanol facilities will require 4.5 billion bushels of corn. Based upon current expectations for corn plantings and yield, that will be roughly 35 percent of the domestic corn supply in 2007 - compared to the 13 percent of the domestic corn supply that was devoted to fuel ethanol production in 2005.

Corn is the primary feed stock utilized by cattle feeders in the United States, accounting for approximately 85 of every 100 pounds of cattle feed in feedlots. As corn is being diverted to supply the increasing demand of the renewable fuels industry, many producers are utilizing a co-product of the ethanol process, dried distillers grains with soluables or DDGS, in their rations at rates of up to 40 percent. Producers are responding to structural changes in the marketplace by expanding their use of alternative feedstuffs, such as DDGS, but corn remains an essential input for their business and the impact of ethanol production on the price of corn has been significant. For the week of May 5th, 2007, the Omaha cash corn price was $3.67/bushel. One year earlier, the price was only $2.04/bushel. That is an increase of nearly 80 percent in just one year.

For all segments of the cattle industry, these price movements have a very real impact on the bottom line. From a cattle feeder's perspective, every $1 per bushel increase in the price of corn means they must pay approximately $22 per hundredweight less for a 550-pound calf in order to maintain their current income level. For the cow-calf producer, that's roughly a $121 per head reduction in price. These numbers clearly illustrate the broad impact of market shifts – cattle feeders absorb a share of higher corn prices in the form of increased operating costs, and cow/calf producers absorb a significant portion in the form of reduced prices for their calves. The most pronounced effect of increasing corn prices was seen last fall when the price for 600 pound feeder steers between September and the end of 2006 fell 20 percent from $1.22/cwt to $1.02/cwt.

It is important to recognize that this is not a cost that the cattle producer can pass along to the consumer, because consumer demand for beef is rather inelastic. Although U.S. beef producers have successfully built demand, and maintained it through increased retail beef prices over the past several years, there is only so much that a consumer is willing to pay before they begin to choose other protein sources. Therefore, in the short run, the majority of these higher feed costs are borne by cattle feeders and cow/calf producers. Retailers and packers will not pay any more for the cattle they purchase.

With the cost of their biggest feed input skyrocketing, and the overall profitability of their business threatened, it is understandable that many cattle producers have become skeptical of government intervention in the ethanol market. **Cattle producers simply want to compete with the ethanol industry on a level playing field for each bushel of corn.**

It should be made clear that NCBA supports the nation's commitment to reducing dependence on foreign energy by developing forms of renewable energy like ethanol. Cattle producers recognize that federal support of the ethanol industry has been necessary to encourage development of basic production technology, but they also believe in a market-based economy. With annual production levels projected to reach between 12

and 15 billion gallons, it is clear that this is no longer a 'fledgling industry' in need of government assistance. As such, **NCBA supports a transition to a market-based approach for the production and usage of ethanol produced from corn. NCBA urges Congress to allow the existing VEETC and the current ethanol import tariff to sunset as scheduled in 2010 and 2009, respectively. Furthermore, NCBA would support input segmentation of the RFS while opposing any increase in the feed grains based portion of the mandate.**

Government mandated demand for corn via an RFS and tax credits intervenes in the market, determining artificial winners and losers, thus decreasing the market's ability to allow supply and demand to drive the ethanol industry. As long as cattle producers have the ability to compete on a level playing field with the ethanol industry for each bushel of corn, the U.S. beef industry can and will remain competitive. Cattle producers have always depended on the free market to drive their business, and they are committed to enduring the good and the bad associated with it.

While producers continue to manage the costs associated with increased ethanol production, NCBA would urge policymakers to support a diverse array of fuels, technologies and feedstocks. NCBA believes that the use of cellulosic feedstocks for ethanol holds great promise. In addition, other means of producing biofuels could open the door to utilizing waste products (i.e. manure, animal fats, greases, etc.) as an energy source. This would alleviate many of the environmental concerns faced by the cattle industry. For example, NCBA continues to support the use of animal fats and oils in the production of bio and renewable-diesel. Production of this biofuel offers a significant, new opportunity for U.S. animal agriculture to participate in the renewable energy business. It is especially important to note that renewable diesel is the first biofuel in which the *preferred* feedstock is surplus animal fat.

NCBA appreciates the House Small Business Committee holding a hearing regarding the 'Impact of Renewable Energy Production in Rural America'. It is in the best interest of our nation to pursue strategies that will begin to dissolve our dependence upon foreign energy sources while benefiting farmers and ranchers and revitalizing the rural communities they support. However, as Congress contemplates further incentives for feed grain based ethanol, NCBA asks that market forces be given the opportunity to function, and that you carefully consider the negative implications that can be brought upon cattle producers as a result of continued government interference in the marketplace.

Sincerely,

Jay H. Truitt
Vice President, Government Affairs

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