SUBCOMMITTEE HEARING ON IMPACTS OF OUTSTANDING REGULATORY POLICY ON SMALL BIOFUELS PRODUCERS AND FAMILY FARMERS

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SUBCOMMITTEE ON REGULATIONS AND HEALTHCARE HEARING ON IMPACTS OF OUTSTANDING REGULATORY POLICY ON SMALL BIOFUELS PRODUCERSAND FAMILY FARMERS

Thursday, May 21, 2009

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. Kathy Dahlkemper [chairwoman of the Subcommittee] presiding.

Present: Representatives Dahlkemper, Ellsworth, Griffith, King, Westmoreland and Schock.

Chairwoman DAHLKEMPER. I now call this hearing to order. Thank you for joining us. Good morning.

As we move towards creating an environmentally sustainable future, we must ensure that the renewable fuels industry remains an important part of that future. Growth within this sector has been explosive. The biofuels industry, which is largely comprised of small firms and family farmers, is a multi-billion dollar business. It sustains tens of thousands of high-wage jobs and is giving new life to rural economies.

Just as importantly, it's paving the way for clean, sustainable energy. Last year alone, production for biodiesel reached 690 million gallons. In recent months, however, the industry has faced a number of challenges that threatened to weaken it considerably in the long term.

In today's hearing, we are going to examine these setbacks and discuss ways to ensure that this important industry is not irreversibly damaged. Biofuels producers are already struggling with falling demand, as one third of biodiesel fuel remains idle. With the price of oil hovering around $60 a barrel, the enthusiasm for alternative energy has dampened. As a result, many investors already skittish about the economy are backing away. With investment down and credit tightening, biofuel businesses are losing access to operating capital at a very critical moment in this young industry's history.

In a February hearing, this Committee examined those obstacles. Today, we will look at the draft regulations with the EPA that have the potential to pose difficult challenges for the biodiesel industry. According to the Energy Independence and Security Act of 2007, all biofuels much achieve a 20 percent reduction in lifecycle

greenhouse gas emissions, while advancing biofuels must have a 50 percent reduction. Lifecycle emissions include direct and indirect land-use charges. Measuring these charges is complex, and there is no consensus over how to calculate these charges. As a result, measurement is driven largely by assumptions and perhaps by some speculation as well.

Another potential problem with this law is that the EPA Administrator is only allowed to reduce the lifecycle greenhouse gas emissions standard by 10 percent, even if the current target is found not to be commercially viable. Moreover, if a specific feedstock or agriculture practice is found to produce too much greenhouse gas, it could be permanently prohibited by the EPA. This might endanger industries that rely on this type of feedstock or practice.

Fortunately, the EPA has the ability to be flexible in drafting emissions profiles, and it is critical that the Agency use that flexibility. To begin, it could accomplish a great deal by drafting a clear, workable framework for small firms to follow. As part of that process, biodiesel entrepreneurs should be consulted.

In moving forward, it's important that the EPA accounts for the needs of small firms and family farmers who are on the front lines offering solutions that work for our environment and our economy. We need to be sure that those leading the way in both investing and innovating are not unduly burdened.

I would like to take this opportunity to thank all of today's witnesses for their testimony. I am pleased that they could be here today, and I look forward to hearing from them.

I would now like to recognize the Ranking Member, Mr. Westmoreland for his opening statement.

Mr. WESTMORELAND. Thank you, Madam Chairman. Good morning, and I appreciate everyone taking the time to be here today as we review the impacts of regulatory policies on the biofuels and farming industries. Today's topic is one of critical importance for our nation. As we all know, energy is the lifeblood of our economy.

Economic prosperity in the United States is closely tied to the availability of reliable and affordable supplies of energy. This is not a new issue. The way we discuss it, however, has changed greatly. For example, agriculture remains Georgia's number one industry and it has been the backbone of Georgia' economy since its founding. Just like everybody who represents a rural area here in Congress, small family farms dot the landscape of my District back home.

Too often, we do not think of farmers as small business people when, in fact, they were and continue to be America's first small business.

Over the past few years, we have debated renewable energy policies. Ethanol and biodiesel have received quite a bit of attention, both here in Congress and across the nation. I do not believe that the search for new energy sources should not be a zero-sum game where we foster one industry to the detriment of another. Our economy is driven by energy and we must take a balanced approach to exploring ways to meet our energy needs. That means looking for ways to increase production of everything we need including oil, coal, and nuclear capabilities in addition to these renewable fuels.

While looking to the future of energy independence, we have to make certain the Federal Government in doing all it can to provide the fuel for our current economy needs to grow. There's continuing interest in expanding the U.S. biofuels industry as a strategy for promoting energy security and achieving environmental goals. However, increased biofuel production may have placed desired policy objectives in conflict with one another.

There are limits to the amount of biofuels that can be produced from current feed stocks and questions about the net energy and environmental benefits that they might provide. Furthermore, rapid expansion of biofuel production may have the unintended and undesirable consequences for agricultural commodity costs, possible energy use, and environmental degradation. We must continue to be mindful of these as we further develop energy policy in this country.

Another problem we face is the possibility, or in my mind the unfortunate certainty, of over-regulation of these industries and the impact it will have on the biofuel refining plants and the farmers who supply them. On May 5, 2009, the Environmental Protection Agency published a proposed rule implementing portions of the renewable fuel standard contained in the Energy Independence and Security Act of 2007. Both agriculture and biofuels industries have stated that this regulation is not only burdensome, but may be based on faulty science.

Today, we are looking forward to hearing from these industries and these agencies about this and other regulations that may threaten the advancement of renewable fuels as well as the agricultural community.

I want to thank Chairwoman Dahlkemper for having this hearing. It's of great importance and especially since the fact that we're right in the discussion of an energy policy that's going to come before this body very shortly.

Chairwoman DAHLKEMPER. Thank you, Mr. Westmoreland.

I would like to move now to the testimony from our witnesses. Witnesses will have five minutes to deliver their prepared statements. The timer begins when the green light is illuminated. When one minute of time remains, the light will turn yellow. The red light will come on when the time is up.

I would like to introduce our first witness on the first panel. Ms. Cheryl Cook is the Deputy Under Secretary for Rural Development for the United States Department of Agriculture. In this position, Ms. Cook manages policies and programs in rural development. The United States Department of Agriculture provides leadership on food, agriculture, and natural resources, rural development, and related issues.

Welcome, Ms. Cook.

STATEMENT OF CHERYL COOK

Ms. COOK. Thank you, Madam Chair, and good morning to you and to other Members of the Subcommittee. It's my great privilege to be here today.

In the interest of time, I'd like to submit my full statement for the record and just summarize my remarks now.

USDA Rural Development is the lending arm of the U.S. Department of Agriculture. We have since the 2002 Farm Bill been actively involved in providing capital to the renewable fuels and renewable energy industries. We believe that biofuels hold great potential for reducing greenhouse gas emissions and improving the nation's energy security and national security.

For rural America, renewable energy and biofuels mean more job opportunities, more market opportunities for our farmers, and opportunities for local ownership of business, creation of new wealth and sustainable economic development.

Promoting clean, sustainable domestically-produced advanced biofuels is a high priority for the President and for USDA and for me, coming from the great state of Penn's Woods. The U.S. is already a world leader in biofuels production, having gone from 1.6 billion gallons of ethanol at the beginning of the decade to over 2 billion gallons. Similarly with biodiesel, our production is increasing at a tremendous rate. Of course, access to capital is key to making sure that increase in production can continue.

I'd like to acknowledge the vision, dedication, and hard work of many people outside of government who took the chance to get started in these industries in the private sector, as well as those in government who have worked to make all of this possible. It's been a long-standing effort, sustained on a bipartisan basis over many years and at all levels of government.

This is my eighth week at the U.S. Department of Agriculture which in many respects makes me an old timer at USDA. I come here after six years in the Pennsylvania Department of Agriculture as the Deputy Secretary for Marketing and Economic Development. Much of my time was spent convincing our traditional economic development partners in State Government that agriculture is, in fact, a business and should have access to the traditional economic development capital, such as in Pennsylvania's case, the Industrial Development Authority funds, the Economic Development Financing Authority funds, and certainly the Pennsylvania Energy Development Authority which was reinstituted several years ago after being in a closet for a few years.

But Pennsylvania, I think, has been a leader, as have some other states. More than half the states now have some sort of biofuels incentive. Under our mandate from Congress dating all the way to 1980, it's incumbent on USDA and Rural Development in particular to ensure there's some coordination between what the Federal Government is doing and what State Government is doing in advancing biofuels and renewable energy.

We received a new urgency when Congress gave us a whole new set of tools in the most recent Farm Bill last year. We went from what had been just the 9006 program in the 2002 Farm Bill to now a whole range of programs beginning with the Section 9003 biorefinery assistance program, where we've made our first loan, an $80 million loan guarantee, actually to Range Fuels in Georgia where they are, as we speak, pouring concrete and getting the pad ready to build a pine tree-based biorefinery.

We have a second project for another $25 million loan guarantee in the works. We see people coming through the door. Capital from the private sector is difficult, as you discussed and we see ourselves

playing a role there. By being able to provide a loan guarantee, we reduce risks to the lender and make those loans possible.

Section 9004 of the Farm Bill provides payments to biorefineries to replace fossil fuels that they might have been using for power, with biofuel or other bioresources, will be out soon, as will be Section 9005, which is a bioenergy program for advanced biofuels, getting to the cellulosic potential that we've been told for the last five years would be realized within five years.

Section 9005 and 9004 will be the subject of notices of funds availability coming out within the next few weeks as we prepare formal regulatory process for the out years. We'll do this first year through a Notice of Funds Availability.

9007, the Rural Energy for America Program, or REAP, is the new and improved version of what you've dome to know as 9006 from the last Farm Bill. We already have out on the street the most interesting part, I think, of that new program which is the energy audit capacity. We're offering grant opportunities for third parties to do energy audits which is something farmers need as well as other types of small businesses. The rest of that program, which is a loan guarantee program as well, will be out within the next week or two, again through a notice of funds availability and competitive loan guarantees.

We are rolling out with a new sense of urgency. We have a Secretary of Agriculture for whom biofuels and renewable energy are a very high priority. The President weighed in on May 5th with a directive instructing us to get going already and get those things out on the streets. So we are peddling as fast as we can and we will make those opportunities available.

I just want to share my personal excitement, having been a part of the announcement back in Pennsylvania in January when we reached the point of 40 million gallons of production and we were able to assure the Governor that we could trigger our (b)(2) requirement and begin our renewable fuels program in Pennsylvania. I look forward to working with my colleagues at EPA and with this Committee, to make all of this potential real.

Thank you.

[The prepared statement of Ms. Cook is included in the appendix.]

Chairwoman DAHLKEMPER. Thank you, Ms. Cook, and welcome. It's always nice to have another Pennsylvanian here.

Ms. COOK. We are taking over.

Chairwoman DAHLKEMPER. That's right. Slowly but onward. Thank you very much.

Our next witness, Ms. Margo Oge, is the Director of the Office of Transportation Air Quality in the United States Environmental Protection Agency. Ms. Oge has been with EPA since 1980 and is responsible for regulating all emissions within the U.S. The Environmental Protection Agency works for a cleaner, healthier environment for the United States. Welcome.

STATEMENT OF MARGO OGE

Ms. OGE. Thank you, Madam Chairwoman, and Members of the Subcommittee. I appreciate the opportunity to testify today. As you

know, Madam Chairwoman, you mentioned in your opening remarks, recently EPA developed a proposed rule for Renewal Fuel Standard and the proposal has been published at least on our website and we're looking forward for public comments.

We believe that this proposed rule as required by EISA, is a critical step towards achieving energy independence, creating jobs in the United States, reducing greenhouse gas emissions that cause global climate change and it requires really a significant increase of renewable fuels in the marketplace to replace fossil fuels. The total volume of renewable fuel must reach 36 billion gallons by 2022. We estimate that the potential climate and energy security benefits of this program will be significant. We estimate that these greater volumes of biofuels will reduce greenhouse gas emissions by 150 to 160 million CO2 equivalent tons on an annual basis. This is really equivalent of taking 24 to 26 million cars off the road on an annual basis. Clearly, this program will have significant benefits for the farming community. We estimate that the net U.S. farm income will increase about $7 billion.

Now we are sensitive to the potential impacts that regulations, like this one, can have on small business and recognize that many biodiesel production facilities are indeed small business. We have heard from many of the small facilities in the renewable fuel industry and I believe we have provided as much flexibility as it is possible under the statute to address the concerns in our proposal. Later, in this testimony I will describe at least one key provision of the proposal which we believe could be important to small business in the biodiesel industry.

But first I want to briefly describe the key component of the RFS2 program which is the lifecycle greenhouse gas impact assessment of renewable fuels. Through EISA, Congress established the first mandatory lifecycle greenhouse gas reduction thresholds for renewable fuels. The law requires that each category of renewable fuels must perform better when it comes to the greenhouse gas emissions of the fuel, then the fossil fuel that it replaces, in this case gasoline and diesel.

To implement these thresholds requires for EPA to look broadly at the lifecycle analysis and to develop a methodology that accounts for all factors that may significantly influence this assessment. We recognize the potential implications of this work. I believe we have worked with all the experts, the academia, the industry, the public sector, to address the best science available today in order to put this lifecycle methodology together and also we believe that this methodology meets our statutory obligations under EISA.

Also, we believe that the proposal is the beginning of a very important dialogue and we recognize that these uncertainties that we have laid out in the proposal are important and we're soliciting peer review comments from the scientific community, but also comments from the public at large.

Now in regards to implications of lifecycle greenhouse gas reduction requirements for biodiesel facilities and other small renewable fuel producers, it is important to note that EISA grandfathers renewable fuels produced from facilities that were either in production or under construction prior to the enactment of EISA in 2007. So in reality what this really means is that approximately 110 U.S.

biodiesel facilities with a production capacity of about 1 billion gallons will qualify towards the 15 billion gallons threshold for the non-advanced biofuels that the statute requires.

Let me briefly mention one of the crucial flexibilities that we believe would be key for the biodiesel sector. Under this provision in our regulation, we propose to allow the use of multiple feedstocks during the year such as soybeans and waste grease, to use the average greenhouse gas reduction profile from both those feedstocks, so that the project could qualify for biomass diesel standard.

We're also proposing to lower the threshold for advanced biodiesel to 40 percent from 50 percent. We believe that allowing these two flexibilities would allow the biodiesel industry to meet the 1 billion gallons of mandate in 2012.

Now in closing, I believe that we have put forward a proposal that is responsive to congressional intent for the renewable fuel program. The proposed rule offers a very important opportunity for EPA to present the work that was done and to have an open and transparent public dialogue with all stakeholders including the biodiesel sector of farmers and other stakeholders in the industry.

Again, I appreciate the opportunity to testify here in your Subcommittee today and I'm looking forward to any questions that you have today or any questions that you may submit to us for a written response. Thank you.

[The prepared statement of Ms. Oge is included in the appendix.]

Chairwoman DAHLKEMPER. Thank you, Ms. Oge.

Ms. OGE. And I'm sorry about my voice. I do have a very bad cold which I usually don't get. But it's not swine flu.

Chairwoman DAHLKEMPER. We're so glad to hear that. H1N1 as we like to call it.

I now recognize myself for five minutes. Ms. Oge, indirect land use and its definition have generated a great deal of concern for the biodiesel industry. In the Notice of Proposed Rulemaking, the EPA seems to treat indirect land use and international indirect land use equally. In the Energy Independence and Security Act of '07, was it explicitly stated that they are indeed the same?

Ms. OGE. That's a very important question, Chairwoman. Clearly, the statute requires us to look at all steps from planting the feedstock, all the way to the time that the consumer uses this fuel. And in doing that the statute is specific in requiring both direct and indirect significant impacts including land use. So there's absolutely no question to EPA's legal office that we must evaluate both direct and indirect significant land use, domestically and internationally.

Chairwoman DAHLKEMPER. What was your basis for including the international indirect land use in the greenhouse gas calculations?

Ms. OGE. The basis is that if you look at the profile of a lifecycle of renewable fuel, let's say biodiesel, the most significant impact of this lifecycle is the land use and the most significant impact of the land use is the international land use. It's 70 to 80 percent of the lifecycle impact. So not including it you will have two problems. One, you would not be consistent with the statutory requirements of EISA and second, you would have scientifically a less accurate

greenhouse gas profile for renewable fuels because you would be excluding the most significant impact.

Chairwoman DAHLKEMPER. Seventy percent of the impact is international?

Ms. OGE. For biodiesel, it's about 70 percent, yes.

Chairwoman DAHLKEMPER. I guess the question is the indirect costs as we're looking at oil-based fuels and are we really looking at this in the same light?

Ms. OGE. We have used the same boundaries in looking at the baseline which was the 2005 baseline for gasoline and diesel fuel as required in the statute in the same boundaries for looking on the lifecycle analysis of renewable fuels. So we're using the same boundaries. For example, when we look at petroleum fuel to estimate the baseline, we're not including the energy that it took to produce the trucks that move the fuel from diesel or gasoline fuel from extraction to the port to be shipped to the United States.

The same thing with biofuels. We're not looking at the energy that it took to build the tractors. But what we do for petroleum, for example, we did take a look at the energy that it took to extract petroleum from Nigeria and Saudi Arabia and the energy that it took for the major lifecycle components to bring it to the United States. So we believe that we have used the same boundaries and the same approach, evaluating the baseline of diesel and gasoline and then comparing it to the renewable fuels.

Chairwoman DAHLKEMPER. And so if their trucks are coming from Canada, for example, it's coming from the sand.

Ms. OGE. Yes.

Chairwoman DAHLKEMPER. Are you using that as part of—

Ms. OGE. Again, we're looking at the 2005, the baseline for what percent the baseline included in the entire set, and if it's part of that baseline, then it will be included. But again, we're looking at the 2005 baseline for petroleum as required by statute. And then we're looking at the 2022 profile for fossil fuel emissions from renewable fuels which allows us actually improve the lifecycle profile of renewable fuels for a number of reasons.

First of all, we are assuming based on USDA's input that the yield of biofuels will be much more significant of feedstocks such as soy or corn in 2022 than it is today. So you will require less land. Second, we have incorporate improvements in the production facility of these renewable fuels in 2022 which again reduces the energy and improves the lifecycle. So that's basically how we have done the analysis that has been extensively laid out in our proposal. And again, we're seeking the public dialogue and public comments.

Chairwoman DAHLKEMPER. Thank you. My time is almost up, but I wanted to ask Ms. Cook a question.

On May 5th, President Obama announced plans for an inter-agency biofuels working group. This group will require the USDA, the DOE, and the EPA to work closely together on biofuels issues. Do you think collaboration between these three agencies will result in a final rule that the biofuels industry can embrace?

Ms. COOK.This is speculation, of course, but yes, the President directed the Secretaries of Energy, Agriculture and the Administrator of EPA to jointly co-chair this new inter-agency working

group. Clearly, it's his intent that his Administration speak with one voice and get to a common position, so I know we're going to work hard on that. We're still putting the working group together. The three principals will be the people who are on the working group. So we're trying to coordinate schedules and get that put together.

Chairwoman DAHLKEMPER. What role do you see this working group playing in the future of the biofuels debate?

Ms. COOK. As much a coordinating role as anything. Even within USDA, Secretary Vilsack has reissued his Energy Coordinating Council, just trying to make sure all of the hands in USDA that have a piece of renewable energy are rowing in the same direction. The same is true across agencies between Ag and Energy and certainly with EPA.

Chairwoman DAHLKEMPER. Okay, thank you. I now would like to recognize the Ranking Member, Mr. Westmoreland. I'll give you the extra time that I took. Thank you.

Mr. WESTMORELAND. Thank you, Madam Chairman. Ms. Oge, nearly all the witnesses on the second panel would disagree with your statement, your written testimony that the indirect land use methodology is scientifically supported. How would you respond to that?

Ms. OGE. Well, as we have laid forward in our proposal for the purpose of public comments, I believe that we have used the best science and the best tools, modeling tools that are available to EPA today. We have received input and support from Ms. Cook's office, so the inputs that we're using, the models that we use, they were in consultation with the USDA experts and the Department of Energy experts. We have talked to the academic institutions that are experts in this area.

So I strongly believe that we used the best science available today and we have done it in a very open and transparent forum. For example, when we started putting those approaches and models together, we met with industry. We told them what we were doing.

When we received the results, you know, it takes a long time for those models to be producing results, we sat down first with USDA and the Department of Energy and we shared those findings. And then we shared them with the industry. So we have done it in two ways. One, we have used the best science available. Second, we have done it in a very transparent way that we hope now to lay out all the assumptions and inputs for comments.

But let me make it very clear that when it comes to lifecycle, there are certain elements that are very certain. Science is very certain. For example, we have a lot of certainty if you use coal or natural gas, what is your carbon increases from that facility in producing this renewable fuel. When it comes to domestic impacts, land use, we have more certainty. When it comes to international land use, there are uncertainties. So we recognize that. And we have done a number of sensitivity analyses in our proposal to show the impact of those uncertainties.

So what we're seeking during the comment period is to have a public dialogue, but also take all these pieces together, all the models and have an extensive peer review process that will then inform

the Administrator and the President and the other agencies how to proceed.

I believe we have used the best science available.

Mr. WESTMORELAND. Has this just been a rush to do this or is it to wait on proven methodology, rather than just trying to forge ahead with the best available science? So you're saying that this is not just best available science, that there are some certainties. Now these uncertainties, how does that play into the overall methodology that you're using to come up with these rules?

Ms. OGE. First of all, I don't believe that we have rushed to decision. I believe we have taken the appropriate time required to draft these regulations. Just to give you an example—

Mr. WESTMORELAND. How long has that been?

Ms. OGE. It has been over a year and a half. Typically, it takes a year to do a proposal. Actually, EISA required that EPA finalize, propose and finalize this standard end of 2007. So we sat down with our political bosses at the time and we said we cannot do that. We cannot. This is too big and too important. So please be assured that we have taken the appropriate time because we realize the impacts that this will have to the sector as a whole, especially the first generation of biofuels.

Second, in the proposal, we have analyzed the uncertainty and we have done sensitivity analysis and we believe that during the comment period we will have sufficient input that will allow us to narrow the uncertainties so we can come up with values that will be more defensible.

Mr. WESTMORELAND. Thank you. Ms. Cook, what part did the USDA and I know you've been there a very short period of time, so you may not know this for a fact, but do you know what kind of active you played or the USDA played with the EPA in coming up with this renewable fuel standard rule because I would think that it would be very important for the USDA to play a big part in how they came up with this on renewable fuels?

Ms. COOK. Agreed, and while I know we were involved, I'm afraid it predates me as you suggested. I'd be happy to supply that for the record. Most of that consultation would have been with the more science-based parts of USDA as opposed to Rural Development, the lending arm. But I'm sure our Research, Education and Extension folks, certainly the Office of the Chief Economist would have been involved in that and I'll be happy to supply that for you.

Mr. WESTMORELAND. If you could supply that, I think that would be very interesting for us to find out what kind of information EPA wanted from you.

And also, just one quick question for Ms. Cook also. The Commodity Credit Corporation part of the Farm Bill, can you expand a little bit on the progress that the USDA is making in regard to that?

Ms. COOK. Are you referring to the Section 9011 Biomass Crop Assistance?

Mr. WESTMORELAND. I have no idea. I have no idea what I'm referring to. Well, let me say this. I think I know what I'm referring to. I just don't know what part of the bill that is.

Ms. COOK. Okay, fair enough. Our sister agency, the Farm Service Agency has the lead in the BCAP, the Biomass Crop Assistance

Program. They are in the environmental review process now and peddling as fast as they can and I'm afraid I don't have specifics on dates, but I'd be happy to supply that as well.

Mr. WESTMORELAND. If you do that, it will be fine, thank you.

Ms. COOK. Sure.

Mr. WESTMORELAND. I yield back.

Chairwoman DAHLKEMPER. I recognize Mr. Ellsworth from Indiana.

Mr. ELLSWORTH. Thank you, Madam Chair. Thank you both for being here. It's obvious we're getting a lot of feedback on direct versus indirect.

Ms. Cook, in your short tenure and maybe you'll have to get to me, is it your understanding that the indirect is the scientific community is backing the opinion of Ms. Oge or the Environmental Protection Agency, in your short tenure are you hearing the same thing, or can you get back to me on that?

Ms. COOK. In my short tenure, what I've learned is we will finance anything that walks through the door.

Mr. ELLSWORTH. Sounds like Congress. I hope that changes. If you can check into that and back that up and/or dispute that. I would appreciate that.

Like I said, I'd be curious because Ms. Oge, with all due respect, what we're hearing is that the indirect is not scientific, that the scientific community is not behind the indirect. So I think we need to get to the bottom of that.

Ms. Oge, can you elaborate for me, it's my understanding with the information I've been given that there is a discrepancy or a difference on EPA's direct emissions lifecycle that now they're saying it's approximately 50 percent reduction in greenhouse gas emissions for ethanol than previously believed and can you elaborate on the reasons why this reduction is now greater than previous EPA estimates?

Ms. OGE. You would have to give me a little more information about the 50 percent. I don't have the memory of 50 percent reduction. But let me assume what the question is. So if you look at the lifecycle you look at all the factors and steps from the feedstock, producing the feedstock, all the way to the time that you and I are using it in our cars and we're burning it. And you look just at domestic impacts, both direct and indirect, because there are indirect also, land-use impacts when you look at domestic steps.

Then you probably would end up for about 50 percent greenhouse gas reductions of corn, ethanol-based fuel in relationship to the gasoline fuel that it replaces. Now when you add the international, both direct and indirect land use, especially the indirect land use, then that 50 percent is reduced significantly. And the reason for that is because the indirect land use is the biggest element of the lifecycle analysis that has the highest greenhouse gas impacts.

Mr. ELLSWORTH. Thank you. Madam Chair, I don't have any questions at this time as we'll go around a couple of times. I yield back.

Chairwoman DAHLKEMPER. Yes, we're going to do another round of questions. I was looking over your testimony, Ms. Oge, and you are holding a two-day public workshop focused specifically on lifecycle analysis during the comment period. If you're so sure

about the indirect land use, I'm questioning the need for having this two-day workshop. Could you explain that?

Ms. OGE. Madam Chairwoman, let me make it very clear. We have put forward the proposal that reflects the best input in science that we have in developing the proposal. The purpose of comment period is required by statute is to get public input. So the public and the experts, the industry and general public can have the opportunity to review the total record. For example, on lifecycle analysis, there are thousands and thousands of pages of modeling and input. So we would be very arrogant to assume that we know everything, because if we knew everything we would not go out with a proposal. We would have a final decision.

So I want to make this very clear, my confidence is based on the work that we have done putting the proposal together. I'm not suggesting by any means that we will not refine the proposal based on the public input. So we're doing three things during comment period. One is we're holding a general public hearing on June 9th, not just on lifecycle because there are many, many elements on this renewable fuel standard. Lifecycle is crucial, but there are many other elements anywhere from the biomass definition, crops definition, how we have done the analysis, the inputs and so forth. So that's a whole day of public hearing. Everybody is invited and we're looking forward to that hearing.

Then we're holding two days of specific meetings with experts in the area of lifecycle and the importance of this is the experts in lifecycle. They will have all the inputs that we could not have published before proposal. And that will be very crucial for us. And what you need to know is we have a very open mind because we want to have a transparent process and adopt the best science.

Third what we are doing now that the proposal is published we will take all the elements of the lifecycle analysis, the FAPRI model, the GREET model and the satellite data and we're going to lay it out for peer review. So there will be three components of public input before the Agency finalizes this rule.

Chairwoman DAHLKEMPER. Thank you. We need to have the correct science and we certainly need to have transparency going forward. Thank you for clarifying that the EPA, and the DOE, and the USDA can do to continue to work to ensure that biodiesel remains a viable fuel?

Ms. OGE. Maybe Ms. Cook will help answer. But let me say that we are very excited with the opportunity to implement the renewable fuel standard, RFS2, the 36 billion gallons. It's equivalent of replacing by 2022 close to 12 percent, 14 percent of fossil fuel in 2022 time frame. The environmental benefits, energy security benefits, and ag benefits are huge. So our first and most important job right now at EPA, the Environmental Protection Agency, is to make sure that we have science right, we have the policy right, that this program is implemented the way that Congress had intended us to implement it.

Chairwoman DAHLKEMPER. Ms. Cook, do you have anything you would like to add to that?

Ms. COOK. Sure. At this point, I think it's still a minority of states that have implemented fleet purchase requirements, I think that's certainly something Congress has begun in the Farm Bill, as

far as federal procurement goes, but certainly, public dollars will be spent on fuel anyway. We should be doing what we can to support this industry.

In addition, from a rural development standpoint what we're looking at is the rest of the distribution network and the infrastructure that needs to be there to actually get pumps available. People will buy the stuff if it's readily available at a pump. Getting it there can be a challenge. We have a lot of—even in Pennsylvania, a lot of filling stations that just aren't equipped to handle this stuff now, so that's kind of our next challenge with some of our other business development programs is to put the rest of the infrastructure out there.

Chairwoman DAHLKEMPER. Thank you. I now recognize Mr. Westmoreland.

Mr. WESTMORELAND. Thank you, ma'am. Ms. Oge, I know that you're the Director of the Office of Transportation and Air Quality Office and Air Radiation. How long have you been at the EPA?

Ms. OGE. I have been with EPA I think 29 years.

Mr. WESTMORELAND. Twenty-nine years?

Ms. OGE. And 15 years in charge of this office.

Mr. WESTMORELAND. And how long in charge of the office?

Ms. OGE. Fifteen years.

Mr. WESTMORELAND. Fifteen years. Wow. And when these rules were put forth on May 5th of 2009, I'm assuming that you were in this rulemaking process when all the scientific data was looked at and you concurred that this is what should be done. Is that correct?

Ms. OGE. It is correct that I concur that the scientific work that was done in our office is the way to go. I would not suggest that I have read all of the thousands and thousands of modeling pages that have gone into this.

Mr. WESTMORELAND. Sure, when you were looking at all the scientific evidence, how much evidence did you look at from the biofuel industry or from the farmer as to how these rules may affect them and did they have any input into how the rules would affect them based on the scientific evidence that you had?

Ms. OGE. From the beginning of designing this rule, but also all the regulations that we do in our office, we pride ourselves to have an open and transparent process where we do have a dialogue with the regulated communities. In this instance, the regulated communities is refiners, the blending, the importers and the renewal fuel producers. So we do have a broad dialogue. Typically, we get together with associations to bring in individual members so from day one, we have had the dialogue, how we're going to do this rule.

Mr. WESTMORELAND. You had a dialogue of how you were going to the rule, but did you have any dialogue into how this rule was going to affect the people that are actually making this stuff?

Ms. OGE. It took about almost a year for the modeling to take place and for the results to be available. So the results became available, the preliminary results, I believe around August of last year. And as soon as we received the results, there were some impacts, like the biodiesel industry, so we brought them into our office and we shared with them those impacts. And because of those impacts we have attempted in the proposal to lay out options that will minimize the impacts and we're seeking comments and those

are the options that I mentioned in my oral testimony, but those are in my written testimony.

Mr. WESTMORELAND. And let me ask you this, being with the EPA for 29 years and being head of this department for the last 15, how much time have you spent on a farm or out looking at some of these different places that produces biofuel and I mean I know that—just how much time have you actually spent out on a farm talking to some of these people that actually produce this or the feedstock or whatever that's there, that they've been able to show you the consequences of what some of your rulemaking decisions might have on them?

Ms. OGE. My great grandfather and grandfather were farmers, but they were in Athens. That's where I grew up, in Greece. I have not spent any time on farms in the United States, if that's your question, but I have spent many, many hours meeting with farmers and meeting with renewable fuel producers throughout the development, not only of this standard. Let's not forget that RFS2 has been implemented, when it was still implemented RFS1, so we have spent a lot of time implementing RFS1.

And I'm saying this with confidence that the industry that has been involved both RFS1 and RFS2, they will tell you that we have had an open door process. We have extended ourselves to talk to them and figure out what are the impacts and how we can minimize the impacts on those industries. But again, what we are doing here is we are implementing EISA, the way that Congress passed it and we're trying to do the best thing that we can to minimize the impact.

We believe biodiesel is important, not only from fossil fuel emissions, but also it's important because it reduced particulate matter—

Mr. WESTMORELAND. I've run out of time. I just wanted to know how much time you've spent on the farm. And let me make a suggestion to you. I made this same suggestion to some people from the Federal Reserve and FDIC. Get out of Washington and go spend some time with these farmers and these people that are actually producing the product. I think you'll get a new understanding for what some of your rules and regulations can do to them that we can come up with in some of these nice offices that we set up with, but when you go out and meet with them and see the things that they are doing to protect our environment and how they're re-using their water and what they're doing with their waste and what they're doing with their feedstock. I think you'd be amazed at that and it might give you a little bit more incentive to understand where they're coming from and what kind of scientific evidence that they would like to see these rules based on.

Thank you very much.

Ms. OGE. I'll give you a commitment from now to the finalizing rule I will visit the farm. Thank you. We will do that.

Chairwoman DAHLKEMPER. Great idea. And I would now like to recognize the gentleman from Indiana, Mr. Ellsworth, for five minutes.

Mr. ELLSWORTH. Thank you, Madam Chair. Ms. Oge, I was reading some of the testimony and I heard you talking about, I think we're talking about land conversions and one of the things you

mentioned was satellite images. And there was a couple others. But I'd like if you could talk a little bit about that, how you looked at the land conversions, what that data brought you and how the satellite images, what that told you and if that dealt with the cause of land usage, what the pictures, and I think if I'm not mistaken, it was from 2001 to 2004, those images. Do those pictures from the sky tell you why that might—and the other things too, I didn't hear what they were, but if you could just elaborate on that methodology.

Ms. OGE. Basically, we looked at four models. GREET is a model that is used and developed by the Department of Energy. FAPRI and FASOM are peer-review agricultural models. Basically, the FAPRI model has been used for international use and the FASOM for domestic use.

So let's talk about corn ethanol. To the extent in this country that we're using more corn towards the production of fuels, and less corn to export that our models between FAPRI and FASOM that will tell us where this additional production of corn will happen. That is the corn that is not going to be exported from the United States to the global market.

And we're using the FAPRI model to tell us how much of that corn in 2022, the corn volume, will be produced in Brazil versus Nigeria or other countries. So we know that aspect of the indirect impact that our biofuel market will have. What we don't know though through FAPRI yet, is how—where is Brazil going to go to produce this additional corn? Are they going to use pasture land? Or are they going to use forests or are they going to use grassland? Or are they going to use a combination. And what we have done for this proposal is to use NASA satellite data that shows us historically where did Brazil go from 2001 to 2004 to additional land to produce additional corn or additional soy?

For example, for the analysis that we have done, the proposal is based that the majority of the land that Brazil is going to use will come from pasture land where greenhouse gas effects will be very minimal. But then the data shows that about 4 percent, I believe 4.2 percent will come from forests and that has a huge impact on the greenhouse gas emissions. So what the analysis shows if that you do sensitivity analysis, and you show something less than 4 percent, let's say 0 percent from forests in 2022, what will happen from greenhouse gas emissions and you see that it's significantly different.

And again, these are the elements that we're trying to peer review. The peer review has started of the satellite data and we believe we should have the results by end of June and we will put those results out for public comments.

Mr. ELLSWORTH. So we're looking at Brazil and tracking what they did and then modeling the United States after that. And when you were also tracking taking into account other reasons other than just corn ethanol and that production and maybe less consumption or other uses or less demand? Are those all taken into account too?

Ms. OGE. Yes, they are.

Mr. ELLSWORTH. Okay, thank you. Madam Chair, I yield back.

Chairwoman DAHLKEMPER. I now recognize the gentleman from Illinois, Mr. Schock.

Mr. SCHOCK. Thank you, Madam Chairman. Thank you, Ms. Oge, for being here. I guess my question to follow up on those that have been asked about, your rules, and my concern is specifically the impact on the biofuels industry and the country and specifically in my District which is the number one employer, that being agriculture.

My understanding, and correct me if I'm wrong, is that the EPA's Renewable Fuel Standard 2 methodology assumes that for every acre of soybean crop that is used for or vegetable oil, let's say, crop that's used to produce a biofuel, an equal acre of ground is used then in the Brazilian Amazon or rainforest, is basically put into production to replace that acreage? Is that correct?

Ms. OGE. I would need to check on that. Obviously, we know that it takes about 64 acres for a gallon of soy biodiesel. And it takes about 64 acres for corn, for corn ethanol and over 400 acres for a gallon of biodiesel. So it's a factor of five. So clearly, you have much more land, it takes much more land, five times more to produce a gallon of biodiesel than it takes to produce of corn ethanol.

I will have to get back to you in the assumptions of the amount of land that it will take in Brazil for soybean oil production versus the United States. I don't remember that data.

Mr. SCHOCK. But from reading your information it led me to believe the assumption is that for every 100 acres that's taken quote out of production or 100 acres in the United States that's used for biofuels, a 100 acres of Brazilian ground is put into production for soybean.

Ms. OGE. I don't remember. The only thing I remember is that we're assuming that today and in 2022, you're going to have higher yields from soybean in the United States. I don't remember what we have done for Brazil. But again, I'll be glad to get back that information.

Mr. SCHOCK. Yes. Well, my concern is that with the new rulemaking it's going to put these biofuel industries out of business because my understanding is based on the current rulemaking that the vegetable oil or soybean biofuels will not meet your 50 percent greenhouse emissions standards that's required. Is that correct?

Ms. OGE. Well, it is correct if you just look at soy-based biofuel, but what we have laid out in the proposal is an option is to allow the plants, the biodiesel plants to be able to average the use of waste grease and soybean and the majority of the plants do that today. I believe about 70 percent of the plants have the ability and they do blend soybean for a few months and then waste grease.

So what we have proposed is an option that if you average the two, and then you lower the threshold from 50 to 40, about a billion gallons of biodiesel could be introduced in the marketplace to meet the standard.

Mr. SCHOCK. Okay. I guess what struck me was that based on what I read, the assumption was almost an equal swap. And in looking at the statistics in Brazil versus the United States, the assumption would be that you know basically as soybean or biofuels production in the United States increased, and that that crop was diverted, so to speak, to produce a biofuel, that there would be com-

mensurate surge of the production of that crop in Brazil. And that is the assumption of what I read.

I guess my concern is that that's a fallacy because the reality is during the same period where biofuels increased in the United States, the production of those same crops in countries like Brazil actually decrease.

Ms. OGE. I have with me Sarah Dunham, who has just given me a note. She's in charge of our Climate Office. And she's telling me that in the model we're not assuming one-to-one ratio. So again, I'll be more than glad to get back to you on that.

And again, that's the purpose of the public comment process. If we make assumptions that scientifically are not supported, we want to get the input and we want to change those assumptions. But according to the note that I received that's not the case. But again, we're going to respond back to you in writing.

Mr. SCHOCK. All I would say is that regardless of whether it was a one-to-one or a two-to-one, the fact of the matter is that the reaction has actually been negative, not positive in terms of the effective production of soybeans in Brazil at the same time and that crop in the United States has been diverted towards biofuel production. So I guess I would suggest that it might be a false assumption.

Ms. OGE. Well, let me make it clear. We're looking at 2022. We're not looking today. So when we are doing the lifecycle analysis for biodiesel from soy, we're looking at 2022, how much biofuel will be required in 2022. And based on the FASSON and FAPRI models, what will happen in the United States in 2022 for exporting soybean. And based on that, then we assume yield improvements and other factors, production improvements and that's where the data is coming from. So I don't think it's comparable that you can compare what is going on today with what we're looking about which is the 2022 production level. And that's again what the analysis is then.

Mr. SCHOCK. Sure, and I appreciate predictions. I just think that it's much easier to have a serious debate about what's happened over the past four years from 2004 to 2008 and talk specifically with facts on production as opposed to extrapolating what may or may not happen over the next ten years.

I have one quick follow-up question if the Chairwoman would be so kind to let me ask and that is did you look at all about, since we're looking at cutting down on greenhouse emissions and trying to save specifically forests and acreage in Brazil, at the impact of our tariff on Brazilian imported ethanol and specifically sugar cane as a—because there's a debate here, obviously, on whether or not that should remain and the impact that's having on reducing the amount of acreage put into production there. Because I had the opportunity to travel there with Majority Leader Hoyer last month and met with members of their legislature who represent the Brazilian forests and their point is simply that for them to not put it into production is really to allow that land to do very little to generate revenue.

And so if we remove those tariffs on the Brazilian sugar cane ethanol, I might suggest that there would be a great increase in

the number or acres there put into production and what impact that has.

Ms. OGE. We have not looked into removing the tariffs because when we are doing this analysis we assume the current U.S. policies. But let me assure you that we have had extensive dialogue with Brazil. I was in Brazil last year. I haven't been on a farm, but I did go to Brazil last year and I spent a whole week with both the government officials, but also with industry.

They have given us extensive input, the only country that we have received extensive input on our models and we are in the process to include their data. We believe the data has a lot of basis to be included, so hopefully by the end of June we're going to be able to lay out the input they have given us.

We also have committed that we will have a separate kind of expert meeting in Brazil with the scientists in Brazil and I think it's very important because Brazil and what is going on there has a very big impact because of the indirect land use to this regulatory program.

Mr. SCHOCK. Thank you.

Chairwoman DAHLKEMPER. I now recognize the gentleman from Alabama, Mr. Griffith.

Mr. GRIFFITH. Madam Chair, I have no questions. Thank you.

Chairwoman DAHLKEMPER. With no further questions I want to thank Ms. Oge and Ms. Cook for their testimony and for their answers. We will now get the second panel ready. Thank you very much.

The second panel can assemble, please.

[Pause.]

Welcome to our second panel. Thank you very much for taking the time out of your busy days to come to Washington and testify today in front of this Committee.

Again, I would like to tell the witnesses that you each have five minutes to deliver your prepared statements. The timer begins when the green light is illuminated. When one minute of time remains the light will turn yellow, the red light will come on when time is up, and I remind you to make sure you time on your microphone when it's your time to speak.

Is my pleasure to introduce our first witness Mr. Mike Noble. Mr. Noble is the President of Lake Erie Biofuels in Erie, Pennsylvania, my District and my home town. Mr. Noble helped build the facility that represents the fourth biodiesel plant he has played a significant role in building. I'm proud to say that Lake Erie Biofuels is Pennsylvania's first large-scale biodiesel production facility, producing 45 million gallons of biodiesel annually. As a leading producer of biodiesel in the northeastern United States and as one of the 50 hottest companies in bioenergy, Lake Erie Biofuels has proven that they can compete on a national and even global level.

Thank you so much for coming and to testify today.

STATEMENT OF MIKE NOBLE

Mr. NOBLE. Thank you, Madam Chair. I'd like to thank the Committee for having me today. I'm going to speak on behalf of the RFS2 program mostly.

Lake Erie Biofuels does produce a high-quality, low-carbon, renewable diesel fuel, replacement fuel. And it's readily accepted in the marketplace. The U.S. biodiesel industry is the only game in town when it comes to commercial scale production of biomass-based diesel as defined in the RFS2.

The production of U.S. biodiesel is consistent with an energy policy that values a displacement of petroleum, diesel fuel with low-carbon, renewable fuel. There are significant energy security and environmental and economic public policy benefits associated with biodiesel use, yet the industry finds itself in the midst of an economic crisis which threatens the future and viability.

The NBB and its associates are not seeking or asking for a creation of a new program, only a stable, reliable policy framework for the one that exists. Implementation of workable, realistic, RFS2 program is a key component to the framework.

RFS2 for the first time requires a renewable component in the U.S. diesel fuel and provides a readily attainable schedule for biomass-based diesel that increases from 500 million gallons in 2009 to 1 billion gallons in 2012. To quality for the program, the renewable fuel must reduce greenhouse gas emissions by 50 percent compared to conventional diesel. But I would like to point out that the cutout for biodiesel, when they talk about the grandfathering, biodiesel—this cutout is not part of that grandfathering, so therefore we would not quality.

The science pertaining to direct emissions is well established. The USDA and DOE lifecycle study was initially published in 1998 and has been continually refined and updated since this time. According to the model, biodiesel reduces greenhouse gas emissions by 78 percent. By statute, the EPA must consider significant indirect emissions when calculating renewable fuel emissions profiles. Unfortunately, the appears that the proposed rule by EPA unveiled May 5th relies on uncertain and inexact assumptions pertaining to indirect land use change, calculating biodiesel greenhouse gas emissions profiles.

The result is that biodiesel produced from domestically-produced vegetable oils are disqualified from the biomass-based diesel program and there are many factors unrelated to U.S. biodiesel production that impact land-use decision abroad. For example, in Brazil, forestry, cattle ranching, subsistence farming drive land-use decisions, yet the EPA proposed methodology appears to attribute this change to U.S. biodiesel production. This assumption defies common sense. If you look, in fact, at the acreage in Brazil dedicated to soybean cultivation actually decreased from 2004 to 2008, while U.S. biodiesel production increased from 25 million gallons to 690 million gallons.

If U.S. biodiesel production drove Brazilian land-use decisions to the degree that the EPA's proposed rule asserts, the opposite would be true. As a result of these dubious land-use assumptions, the EPA's proposed rule restricts feedstock for low-carbon diesel replacement fuel to only animal fats and restaurant grease. Vegetable oils account right now for about 60 percent of the feedstock that is available to meet the RFS2 biomass-based diesel targets. And the RFS2 volume goals simply cannot be met if vegetable oils are disqualified from the program. Even under the so-called path-

way for biodiesel that is briefly outlined in the proposed rule, there will not be enough feedstock available to meet the RFS2 volumes for biomass-based diesel. This outcome is not consistent with either sound science or sound energy policies.

Lastly, U.S. agriculture has historically released increased productivity yields. As technology improves, it is reasonable to assume that these gains in efficiencies will continue. As these efficiencies are realized both domestically and around the globe, the impact of the land use change to biofuels production will be further diminished and this must be recognized in the EPA's greenhouse gas emissions calculations.

I'd like to thank you for having me today. That's it.

[The prepared statement of Mr. Noble is included in the appendix.]

Chairwoman DAHLKEMPER. Thank you. I would like to now introduce Mr. Wootton. Mr. Wootton is the president of Keystone Biofuels in Shiresmantown, Pennsylvania. Mr. Wootton has worked with the Governor of Pennsylvania and the State's Legislature to pass several biodiesel bills in 2008. He has truly been a leader in Pennsylvania's on-going support of renewable energy. Keystone Biofuels is a manufacturer of biodiesel utilizing soybean oil provided by Pennsylvania farmers. Welcome.

STATEMENT OF BEN WOOTTON

Mr. WOOTTON. Thank you. Chairwoman Dahlkemper, Ranking Member Westmoreland, and Members of the Subcommittee, I thank you for the opportunity to testify today. I'm here on behalf of Keystone Biofuels, a small biodiesel production company located in Pennsylvania. We are the longest-running biodiesel production facility in the state and work extensively with state and federal public officials informing and implementing good public policy on biodiesel.

Biodiesel is a high-quality, low-carbon renewable diesel replacement fuel that is readily accepted in the marketplace today. I applaud you and the Committee in taking an interest in the impacts of outstanding regulatory policy of small biofuel producers and family farmers. Although there are several outstanding regulatory issues that impact biodiesel, I'm going to focus my attention today on the 2008 Farm Bill, Section 9005, which Congressman I think you were asking about earlier. It's the bioenergy program for advanced biofuels. It's the old OCC program.

This program provides support to, among others, biodiesel producers, to help offset feedstock costs. Specifically the program provides for $300 million in mandatory funding over a five-year duration of the Farm Bill. Ethanol produced from corn would not qualify for the program. It creates two classes of producers for purposes of payments. Producers with a production capacity smaller than 150 million gallons would be eligible for 90 percent of the money provided in the program. Producers with a capacity of over 150 million gallons would qualify for the remaining five percent.

The U.S. biodiesel industry is facing an economic crisis. Plants are having difficulty accessing operating capital. In addition, there's a reduced demand for biodiesel due to the economic down-

turn and delayed implementation of the RFS2 biomass-based diesel schedule. Due to current market conditions, less than one third of the industry's facilities are currently producing fuel. Feedstock costs make up more than 80 percent of our production costs. Over the past year, feedstock costs have remained volatile, reaching record highs and making it difficult to economically produce the fuel.

A bioenergy program that provides payments on all gallons of production will help all U.S. biodiesel producers displace petroleum with clean-burning, domestically-produced biodiesel.

So what are the U.S. benefits from increased production? Energy security. The U.S. biodiesel industry is providing both new fuel and new refining capacity to the nation's energy infrastructure. Nearly 700 million gallons of biodiesel were produced in 2008 displacing almost 28 million barrels of petroleum. It's also friendly for our environment. Biodiesel reduces lifecycle carbon dioxide emissions by 78 percent. The 700 million gallons of biodiesel produced last year represents over 11 billion pounds of carbon reduction. That's equivalent of removing over 900,000 passenger vehicles from the nation's roadways.

It also creates jobs in rural America. Production in America's biodiesel plants in 2007 added over $4 billion to the U.S. economy; increased household income by over $960 million; and supported over 21,000 jobs.

The President has declared this week National Small Business Week. He said and I quote, "the entrepreneurial spirit lies at the core of our nation's economy and identity. If Americans with good ideas can work hard, put their plan to the test, and succeed, the American economy will continue to create jobs and lead the world in innovation and productivity."

The U.S. biodiesel industry is doing just that. Our industry's ingenuity and hard work are critical to our nation's prosperity. Small businesses are the lifeblood of cities and towns across the country. Over the last decade small businesses created 70 percent of all new jobs. Our industry, with the help of the Committee, can contribute and lead the way to prosperity, particularly in today's challenging economic environment. The nation that leads the 21st century clean energy is a nation that will lead the 21st century global economy. America can and must be that nation.

The production use of biodiesel is consistent with an energy policy that values the displacement of petroleum diesel with low-carbon, renewable fuel. This is a necessary program to continue the development of biodiesel nationwide.

We encourage a consistent program with the following:first, a feedstock neutral program; and second, a program that is measured on the gallon of biodiesel, rather than on feedstocks or some other methodology.

In conclusion, I encourage your Committee to urge the USDA to move expeditiously in implementing the bioenergy program and provide payments to U.S. biodiesel producers in the Fiscal Year 2009, retroactive to October 1, 2008. Our single priority is to ensure that the bioenergy payments are provided on all gallons of biodiesel produced. Our challenge is that the policy was passed last year and the biodiesel issue is still waiting for USDA to implement

the program. The $300 million provided by the bioenergy program for advanced biofuels will help bring stability to our industry so that biodiesel can continue to add to the nation's fuel supply.

Thank you.

[The prepared statement of Mr. Wootton is included in the appendix.]

Chairwoman DAHLKEMPER. Thank you, Mr. Wootton.

I'd like to now introduce Mr. Bafalis. Mr. Gregory Bafalis is the president and CEO of Green Earth Fuels located in Houston, Texas. He has more than 20 years of project development experience in the energy sector. Green Earth Fuels supplies energy companies with biodiesel fuel and bioproducts.

Welcome, Mr. Bafalis. Did I pronounce your name correctly?

STATEMENT OF GREGORY BAFALIS

Mr. BAFALIS. You did. Thank you. I thank the Committee for having me here today. Before I get started on my remarks, I wanted to try to correct a misstatement that the Director from the EPA said before. I believe she said it took 64 acres to make one gallon of ethanol and 400 acres to make one gallon of biodiesel. In fact, it's 400 gallons of ethanol from one acre of corn and 64 gallons of biodiesel from one acre of soybean. I hope that's not the same math they're using when they do the indirect land use.

I submitted written testimony and I'm not going to go through that as such. I'd actually like to focus more on some of the issues that are facing us and focus on the dire straits of this industry. We've done a lot of things right in my company. We're located on the Houston ship channel in the heart of the petroleum complex. We've purchased cheap feedstocks. We've always made quality product. We've always delivered on time, met all of our contracts. But despite everything that we've done, we've even invested millions of dollars in cutting-edge feedstocks to try and provide for the future, even with all of that, we're in dire straits. And if we're in dire straits, I can only imagine what the rest of the industry is. In fact, I think if you looked at the production capabilities of Houston, Texas, there's something in the neighborhood of 350 million gallons of producers there. And in fact, I think we're the only one running right now and we're running on about a 25 percent capacity.

If this industry goes down, it's going to lose 29,000 jobs. You've got billions of dollars that have been invested by private equity firms, by banks, by individuals such as myself, that it's just going to go away. And when you go to do the second generation that same money is not going to be there again. It will take years, maybe never, for it to come back.

There are really four reasons we got in this situation. The first one everybody has been talking about for months is the frozen capital markets. We depend on working capital to survive, bank loans to survive. And of course, as everybody knows those have pretty much dried up. There really is a lack of market in the United States for biodiesel. The RFS was put in place in the past two years or so. It's taken EPA almost two and a half years now to gets its draft rule out. To be quite frank, the major oil companies have

told us we're not going to buy until the RFS is out, until the rules are clear, and we know exactly what the game looks like.

So we've been forced to sell into overseas markets, predominantly Europe. The Europeans recently came out and put protectionist measures in, so now that market is closed for us. And now you have a U.S. industry with the majors waiting for the RFS, with absolutely no markets for us outside the United States and we are struggling to make ends meet on a month-to-month basis.

Third, the sheer nature of our tax credits, year to year, we don't know if they're going to be there next year. The capital markets don't know if they're going to be there the next year. Our investors don't know if they're going to be there next year. Most importantly, our customers don't know if we're going to be there next year. Going on a year-to-year basis is just killing us because we are just hoping like we did last year in October, we get that extension so we can go out and we can contract into the next year.

And finally, I think as Mr. Noble has said, the indirect land use is absolutely killing us. If that comes out, if that comes out in the RFS, we will not have U.S. feedstocks. We will not be able to produce biodiesel and we will certainly be out of business.

I'll focus a little bit on the RFS for a second, because I mentioned big oil. Big Oil is waiting for the rules. Quite honestly, I can understand that. They're not going to go out and buy a bunch of soybean-based biodiesel only to find out in six months that gee, that doesn't count. You just bought 100 million gallons and it doesn't count. So they're waiting for the rules. But the problem is that the rules take six months to get out. We're going to be well into the fourth quarter. Big Oil has also told us well, gee, if it doesn't happen until the end of the year, then guess what? We're going to go to Court and we're going to fight it because we don't have time to implement it now.

Now if you push me out into 2010 before I can have an RFS to sell under, I'm out of business. And if I'm out of business, guess what Big Oil is going to say then? Well, there's no producer, so I can't buy biodiesel. So this industry will certainly be dead. So we need to get the RFS out now. We need to get it out with indirect land use out of it. I lived in Brazil for seven years and I did it in the '90s and they were clearing the rainforest when I lived there and there was no biodiesel industry in the United States. I can remember when Sting was trying to save the rainforest and that was well before we all existed, the folks here at this table.

And finally, we need to get a tax credit that is something that we can count on, something that will last for more than one year, more than six months, something that we know, just like the renewable electric industry got in the most recent stimulus package, we need something that we can count on for the next five years, so we can go out and contract long term, so we can go out and sell long term and so that the major oil companies know that they can count on us and we're going to be there for the future.

Thank you.

[The prepared statement of Mr. Bafalis is included in the appendix.]

Chairwoman DAHLKEMPER. Thank you, Mr. Bafalis.

Mr. Gaesser, did I pronounce that correctly? Mr. Ray Gaesser is an Executive Committee Member of the American Soybean Association. He is a soybean producer from Corning, Iowa. He has been a member of the Iowa Soybean Association since the 1980s. The American Soybean Association develops and implements policies to increase the profitability of its members in the entire soybean industry. Thank you for joining us today.

STATEMENT OF RAY GAESSER

Mr. GAESSER. First, I'd like to thank you all for allowing us to speak today. My name is Ray Gaesser. I'm a farmer. My family and I grow soybeans and corn in southwest Iowa. We've been there for 31 years. We actually grew up in Indiana and moved there 31 years ago. I've got a lot of experience in Brazil, in South America, in particular. I've got a lot of experience in the Iowa Legislature. Also, I work with our local economic development and economic development is so important locally and nationally and the biodiesel industry, the renewable fuels industry has been such a benefit to rural economic development. And I would hate to see any of the new rules destroy that opportunity.

As I say, we've been farming for a long time there. I've had some experience in Brazil. We've had agriculture students come to our farm and stay with us. We understand the industry down there. We know their families. I probably know as many agronomists and farmers in Brazil as I do in the United States. So it's very important that we understand when we make rules about indirect land use that we have all the facts. And I have a good friend who is a researcher and he says if you torture the data long enough it will tell you anything you want and that's what I'm afraid has happened here.

The assumption that EPA is using about the increase in land use in Brazil from 2001 to 2004 is probably accurate, but it was not because of biodiesel. It was because of currency issues. It was because of tax incentives. It was because of incentives for money to grow agriculture in the country. It had nothing to do with renewable fuels. So I think we need to understand that maybe they should use information that after 2004 when the majority of the renewable fuels were implemented in the United States.

One of the other concerns that we have is the whole feedstock issue with certifying the feedstock for biodiesel producers in the United States. It is really difficult to certify all the hundreds of thousands of growers who might deliver soybeans to processors or to actually biodiesel plants. It would be history of production of the United States is that we've used up most of the available agricultural land, virtually all of it has a cropping history and it would be almost impossible to certify all the growers. And maybe we should certify the growers who are growing soybeans or corn on land that hasn't got a crop history, rather than requiring hundreds of thousands of producers to certify. So it's really difficult for the industry to certify everyone. It would be much easier to take the very, very few that are not in compliance and make them certified.

I don't know what my time—oh, there it is. Okay. And has been stated earlier, the bioenergy program is so important to our industry and so important to the viability of the biodiesel industry, we

really need to get that implemented in a timely fashion and get it funded in a timely fashion so that's one of the very important issues to ASA.

The whole issue about indirect land use seems to be, as it was stated early in direct conflict with our energy policy. We have two organizations that are conflicting. We have one that's trying to increase our energy security and the other organization it seems like they're doing everything they can to be a detriment to renewable fuel. So that's a huge concern to me also.

I'd just like to thank you for this opportunity to speak to you on behalf of ASA and myself as a family farmer. Thank you.

[The prepared statement of Gaesser is included in the appendix.]

Chairwoman DAHLKEMPER. Thank you for your testimony. The bell tells us we have votes. We're going to try to get through the next witnesses, and then we will break while we go over and vote . There will be a series of three votes, and then we will come back for the questioning . I'm going to now turn it over to the Ranking Member, Mr. Westmoreland, for the next two witnesses.

Mr. WESTMORELAND. Thank you, Madam Chair. Zippy Duvall has been president of the Georgia Farm Bureau since December of 2006, a third generation Greene County dairyman, Zippy retired from the dairy business in 2005. He now operates 150 breed cow beef operation, produces and sells quality hay, and is a poultry grower, producing about 480,000 broilers a year. A Farm Bureau member since 1977, Mr. Duvall currently serves on the Greene County Farm Bureau Board of Directors and has held numerous leadership positions in the County Farm Bureau including president and vice president. In 1982, he was named Georgia Farm Bureau and the American Farm Bureau Young Farmer of the Year. Zippy Duvall is the real deal. Zippy, welcome.

STATEMENT OF ZIPPY DUVALL

Mr. DUVALL. Thank you, Congressman. I'm glad to be here.

Congresswoman, we have something in common. My mother comes from Pennsylvania, Westover, Pennsylvania, but unfortunately, I took on my daddy's speech patterns in Georgia and we don't quite do things, talk as fast as most people do.

Chairwoman DAHLKEMPER. Well, that's great, you have Pennsylvania roots.

Mr. DUVALL. That's right. I'll try to get through it real quickly because I know you've got to vote.

So I thank you for the opportunity to come to talk to you about renewable fuels standards and the Congressman told you where I come from. I am a true farmer, even though I am the president of the Georgia Farm Bureau that represents 400,000 members across our state. The one thing he did not tell you was that my farm has about 300 acres of forest land on it and that's important to note when I go through my testimony.

Regarding renewable fuels standards, the farm sector in Georgia strongly support the increased use of domestic renewable fuel. We believe biofuels are a key component to increase our nation's energy security. Many of us remember the 1970s and the energy problems we experienced at that time. There were long lines at the

gas stations and the gas pumps couldn't even reveal the price. We had to double the price of the gas during that time. Unfortunately, during that time Americans vowed, fortunately, vowed to become more energy independent, but unfortunately we lost our resolve and as soon as the price of gasoline as you referred earlier, Madam Chairman, we started going backwards. And the result today is we're held over the same barrel of oil, held hostage again 40 years later.

Recent events, 35 years of history should have taught us that America needs to be more self-reliant when it comes to our energy needs. The renewable fuel standards is an important step to recognizing the biofuels like ethanol, biodiesel, that they burn cleanly, clean transportation fuels and they lessen our dependency on foreign oil. And they also revitalize rural America.

American farmers today provide food, fiber, feed, and fuel for our country. We welcome the challenge and we believe that American people will continue to be well served by farmers.

While Georgia farmers look forward to serving the needs of our people, we do have concerns about the proposed regulations offered by EPA. The RFS passed in the Energy Independence Security Act of 2007 requires new biofuels to emit 20 to 60 percent fewer greenhouse gas emissions than gasoline to be eligible for the RFS program. Our members have serious concerns about the terms, indirect land-use change, and lifecycle carbon emissions and how these concepts would be measured and implemented.

We do not believe that there is a reliable way to measure accurately and to predict the production of biofuels that affect land use here and in other countries. For our farmers, the market directs, dictates which crop that we plant and it also decides where that crop will be grown. If there's sufficient demand for a crop, farmers will produce it; and if the market persists, greater efficiency follows.

When my father was a boy, velvet beans were an important crop and 30 bushel corn was considered an average yield. Today, 30 bushel corn is considered a crop failure and I don't know that there's anybody in Georgia that can remember seeing a field of velvet beans any more.

Improved plant varieties, new technologies, and more efficient agricultural practices have produced greater crop yields with higher quality. My grandfather could have never imagined today's farm productivity. Likewise, it is unrealistic to think that anyone can predict how agriculture will evolve in this future based on the single variable of biofuels utilization. New and uncertain science to predict land use change has no place in federal regulations.

Georgia produces more forestry products than any other state in the Union. Seventy-two percent of our forests in our state are privately owned. We believe that it is important that the forest biomass be a source of renewable fuels.

The RFS in the energy bill did not include all forms of forest biomass and we believe that is unfortunate. Under the standard, the only forest biomass considered renewable is that "actively managed tree plantations." My own farm would not qualify under that definition. The reason for such a narrow definition is unclear, but the result is that many family forest owners will be precluded from ac-

tive participation. If the purpose of the standard is to increase the use of forest biomass, the definition should be as broad as possible encourage the use.

Farm Bureau supports changing the definition of renewable biomass to include all forms of forest biomass. It is important that legislation should be as inclusive as possible regarding energy feedstocks and methods.

The State of Georgia uses about five billion gallons of gasoline annually. Of that amount, only seven percent of it is ethanol. We continue to support traditional corn-based ethanol. We encourage the Federal Government to revisit the existing limit on ethanol blending which is currently capped at 10 percent per gallon of gasoline. Moving to a 15 percent blend would encourage more ethanol utilization.

Many of our farmers in south Georgia that are members of our organization are part owners of the First United Ethanol LLC in Mitchell County, Georgia. This facility now produces 100 million gallons of ethanol per year and is adding to the local rural economy.

Chairwoman DAHLKEMPER. Just for the sake of time, we'll get more of your testimony in our questioning, if we can move on.

Mr. DUVALL. Thank you for your time.

[The prepared statement of Mr. Duvall is included in the appendix.]

Mr. WESTMORELAND. Madam Chair, I'll now introduce Dr. Das.

Chairwoman DAHLKEMPER. I recognize the Ranking Member, Mr. Westmoreland.

Mr. WESTMORELAND. Dr. K. C. Das is Associate Professor and Coordinator of the Biorefinery and Carbon Cycling Program at the University of Georgia. His current work and interest focus on biomass conversion to energy and value-added products like chemical feedstocks and bioproducts. Through his research he has authored or co-authored 43 peer-review journal articles, six book chapters and 95 conference papers and has participated as principal or co-principal investigator in over 50 federal, state, or industry-funded projects.

He teaches senior-level engineering process design and environmental engineering courses at the University of Georgia.

Dr. Das, welcome to the Small Business Committee.

STATEMENT OF K. C. DAS

Mr. DAS. Thank you, Congressman. Madam Chairman, Members of the Committee, it's a pleasure for me to be here to testify.

In our research at the University of Georgia, I head the Biorefining and Carbon Cycling Program. The primary goal of this program is to develop technologies that reduce the carbon footprint, reduce greenhouse emissions, produce biofuels sustainably and create jobs in rural areas.

It's my opinion that as we transition from the current fossil-based fuel economy to a more renewable energy economy, we have an opportunity and probably even an obligation to design a system of energy delivery that is sustainable and minimizing the net greenhouse gas emissions is a critical part of that.

I'd like to touch on four points. First, if the goal is to minimize greenhouse gases and create jobs in rural areas and income to farms, the first thing we should do is go after residues, agricultural residues, forest residues. There are a variety of industrial waste materials that are presently put in landfills or are under-utilized. It's well established that the greenhouse gas load of converting of waste into energy is very low and there are lots of technologies that can utilize these materials at the present moment.

It appears to me that this is not completely utilized.

The second point I'd like to make is that if you want a sustainable biofuel future, we've got to diversify our options of crops available, particularly those crops that are grown with minimal inputs such as sorghum which is a drought-resistant crop, can grow in marginal soils. Also a crop like oilseed radish. It's a winter cover crop that is used around the country, but nobody has ever looked at it as a biofuel crop and it has potential. The University of Georgia recently conducted some studies that are very promising.

The third thing I'd like to touch upon is if our goal is to reduce carbon footprint and create jobs, we've got to be open to a variety of other technologies than liquid transportation fuels alone, for example, anaerobic digestion. This is an old technology that's been around, but it's not presently very high on the spectrum of ultimate fuels, primarily because the product of anaerobic digestion is methane which is a gas and if you look at the carbon footprint of that compressed natural gas coming from anaerobic digestion it is very, very low. There are people around the country, primarily in the private investment that are exploiting that, but assistance from the government to make that a far-reaching impact would be of far greater assistance.

A related technology is the algae biofuels. Its cutting-edge technology very recently has come up in the spectrum and therefore it's a little behind corn, ethanol or lignocellulose ethanol, therefore, when you compare them directly, algae biofuels have disadvantages from a greenhouse gas angle. So some alternative form of support for these cutting-edge technologies that are just beginning to come into the spectrum is useful.

The last thing I'd like to point out is today we are going after biofuels because biofuels are carbon-neutral and that's absolutely the thing to do, but the challenge in the future is reducing the CO2 that's already in the atmosphere and one very appropriate technology to do that is the use of biochar. Biochar is a carbon-based byproduct of energy production. At the University of Georgia, among other universities around the world is leading the technology development and technology transfer in this area. One of our Georgia companies, Range Fuels, is also a company that's working with similar technology.

The byproduct of biochar is used as a carbon sequestration technology in soils. It has significant agronomic benefits. It sequesters carbon for many years, in the thousands of years. It's easy to quantify and will create local jobs. However, from what I see, there's very little discussion at the national level, at the federal agencies, or within the existing legislature or outstanding legislation that discuss this and I'd like to bring that to your attention.

Thank you very much.

[The prepared statement of Dr. Das is included in the appendix.]

Chairwoman DAHLKEMPER. Thank you, Dr. Das. We're now going to recess for approximately 30 minutes while we go vote. We will reconvene at approximately 12:10. The Committee now stands in recess.

[Off the record.]

Chairwoman DAHLKEMPER. We now reconvene the Small Business hearing.

Thank you for your patience. It took us a little longer than we thought, but we're glad that you stayed and have the opportunity to ask you some questions.

I'm going to open this first question up to the panel. I'm also on the Agriculture Committee, and these issues tie together with both of my Committees. Legislation has been introduced in the House and the Senate by Colin Peterson, the chairman of the Ag. Committee that would eliminate the EPA's ability to take into account international indirect land use. As we know indirect land use has been used to calculate land conversion, within the RFS2 proposed rule. If we were successful would this change adequately account for the environmental impacts of biodiesel production?

Would anyone like to address that question?

Mr. GAESSER. Could you repeat that one more time?

Chairwoman DAHLKEMPER. Colin Peterson has introduced legislation that would eliminate the EPA's ability to take into account international indirect land use and I'm just wondering if that change happens, would that change adequately account for the environmental impact of biodiesel production?

Mr. GAESSER. I think it would probably be a good start at least. I guess our concern is that if we open up the law or the rules, what other changes might happen that would be detrimental to the biofuels industry.

We think with the right definition of indirect land use internationally, there's probably not a problem with soy biodiesel, but it would be a help as long as we don't, when we open up the bill or open up the rules that we don't make other changes that are detrimental.

Chairwoman DAHLKEMPER. Do you have any thoughts on what that definition should be?

Mr. GAESSER. I think it's a—if they're realistic about what really happened in the industry in South America, particularly, since the biodiesel has been expanding in the United States, it they use those, that information, it would be a whole different story about indirect land use. And another thing, how do you extrapolate into 2022 what we're going to plant or what they're going to plant? Economics make the decision for us to a big point. I think a lot of the methodology is flawed and there would have to be some changes in the whole method of looking at indirect land use.

Chairwoman DAHLKEMPER. Would anyone else like to address that question?

Mr. BAFALIS. If you go back to what the Director said, I think she said 70 to 80 percent of the impacts come from the indirect land use internationally and the greatest uncertainty they have around the science is the international element of it.

I'm not sure. I don't believe the science is there yet. It may be one year away. It may be five years away. I think that looking at the direct impacts that we can quantity now is the right way to do it right now. And then when the time comes and the science is right and we can make that leap of faith that it can plant one acres here and it affects one acre there which I'm not sure I can make that leap of faith, that maybe it's two, three, four, five years out, but I just don't think the science is there. So yes, I think that change does address the impacts of biofuels right now.

Chairwoman DAHLKEMPER. Thank you. Mr. Noble, if the RFS2 becomes final as currently drafted, what impact do you think it would have on the labor market and new green jobs?

Mr. NOBLE. Well, since now it would pretty much ruin the biodiesel industry. I think someone has indicated how many jobs were in the biodiesel industry.

Chairwoman DAHLKEMPER. Would that basically close down your plant?

Mr. NOBLE. Yes, because even though we could run on yellow fats and animal greases, the industry would be done and therefore nobody would be interested in buying it anyway, so we would be done.

Chairwoman DAHLKEMPER. Of course this industry has generated state and federal tax revenues. What can we expect, do you think, that the impact would be then on the U.S. Treasury and State budgets?

Does anyone have an answer?

Mr. WOOTTON. It would be significant. The testimony I gave earlier, we're talking about an economy of $4 billion for biodiesel and you'd be limiting the number one feedstock that we use to make that fuel at a time where we need jobs. What I got out of this morning's first hearing was, it was our best guess efforts to this process. I think trying to apply that thinking to something that's so good for this country, creating jobs, creating energy, shovel-ready energy independence, I think that's the wrong approach to be using best guess efforts on eliminating something so good.

Chairwoman DAHLKEMPER. Mr. Gaesser, do you want to comment on that?

Mr. GAESSER. Yes, the information that ASA has would be $866 million in tax revenue to the Federal Government.

Chairwoman DAHLKEMPER. $800—

Mr. GAESSER. $866 million.

Chairwoman DAHLKEMPER. To the U.S. Treasury?

Mr. GAESSER. Yes.

Chairwoman DAHLKEMPER. Thank you. Mr. Bafalis, you indicate that you expect small producers will fail this year without help. How long do you believe they can survive without a renewable fuel standard?

Mr. BAFALIS. I think quite a few have probably gone under. I know in the Houston area, we're probably the only one of five running right now. It really depends on how much money they have, but basically we're all burning cash. We're just staying there spending money and not doing very much. So if this goes beyond or well into the fourth quarter, I think most of the industry will end up failing.

Chairwoman DAHLKEMPER. Would an emergency RFS issued by EPA for biodiesel help you survive at this point?

Mr. BAFALIS. Immensely. That would get the customers back. That would get major oil to start buying the product and we'd all be back in business.

Chairwoman DAHLKEMPER. Thank you. I'll now recognize Mr. Westmoreland, the Ranking Member.

Mr. WESTMORELAND. Thank you, Madam Chair. And I'll open this up to any of you. Were any of you ever contacted in your professional positions as to what effect any of these rule changes or any of this legislation that's been passed here would affect your business or your ability to do business?

Mr. BAFALIS. Directly, no.

Mr. GAESSER. I just talked to Tom and ASA had no one from EPA contact them. You would think they would.

Mr. WESTMORELAND. You would.

Mr. DUVALL. Congressman, I can't speak for American Farm Bureau, but Georgia Farm Bureau has not been contacted.

Mr. WESTMORELAND. Any from the educational?

Mr. DUVALL. Not that I know of.

Mr. WESTMORELAND. Academic, okay. That's one of the problems that we have up here. We—and I guess I'll include myself in on this, but a lot of times people up here think they know more about your business than you know and especially that goes for the elected and the not elected sometimes are even worse, as far as writing some of these rules and regulations.

Mr. Bafalis, you mentioned the—I believe it was you that mentioned the grants, the USDA, about the ones that produced 151 gallons or more or was it you—

Mr. WOOTTON. It was me.

Mr. WESTMORELAND. Mr. Wootton.

Mr. WOOTTON. Yes.

Mr. WESTMORELAND. Okay. You mentioned that. Is that going to be, how many gallons do you produce or do you all produce that—

Mr. WOOTTON. We have a capacity of 20 million gallons a year, but we're only producing about 2, so the 150 million gallon benchmark for the 95 percent of the funds available is going to include most of the industry, maybe a handful of producers that are over that capacity.

Mr. WESTMORELAND. So that would probably include 99 percent of them?

Mr. WOOTTON. I would say.

Mr. WESTMORELAND. Since there are very few that probably produce more than that.

Mr. WOOTTON. Yes.

Mr. WESTMORELAND. And let me ask Dr. Das a question. You know all the money that we're spending that goes along with green energy or whatever, what percentage of that is going into studying it, you know, looking at the consequences of it and how it's paying off? How much of that is going into that part of the science, rather than just giving it to folks that are kind of leading the charge on this?

Mr. DAS. Congressman, I don't know the exact numbers, but I keep track of a lot of the funding opportunities that come out from

the USDA, DOE. Most of those are in either the development of technology or conversion aspects and as far as I remember there's not any that actually looks at the impacts of technology on the wider economy or the environment that is directly available.

Mr. WESTMORELAND. And how about the research and development of these different types of things. You mentioned the biochar. How much money out of this, let's just use the stimulus package.

Mr. DAS. Yes.

Mr. WESTMORELAND. The billions of dollars that we had there, how much of that money went into research and development on some of these biofuels?

Mr. DAS. As far as I know there's no money in there for biochar and it is listed, it is authorized under the Farm Bill, but it has not been picked up by the federal agencies and supported.

Mr. WESTMORELAND. Thank you. Mr. Duvall, you were talking about the forest part of it, the managed forest, I guess, as far as the biomass.

Mr. DUVALL. Right.

Mr. WESTMORELAND. Can you explain how this rule is kind of working against us on that?

Mr. DUVALL. In Georgia, according to the Georgia Forestry Commission, we have about 28 million acres of forest land with biomass on it. And under the definition that's in this act, only about 7 million of those 25 million would be classified in that range. A lot of the small family farms are just not going to be able to fit under that definition because they're not a tree plantation.

Mr. WESTMORELAND. And the word there was managed.

Mr. DUVALL. Right, a managed tree plantation.

Mr. WESTMORELAND. And why would they include that language, to so narrowly focus on it? Do you have any reason?

Mr. DUVALL. You know, I can speculate what their intent was. It maybe go back to how land is being used and what the potential of the trees that might be cut if they let all of it be accessible, but in Georgia, we're going to grow the biomass. If it's cut, it's going to be replanted, and we're going to grow jobs. We're going to grow jobs with trees. That's just what we do in Georgia, because that land is what it does best.

Mr. WESTMORELAND. And Dr. Das, you're a professional in this, but some of those trees that we have and that may be on some of these farms that fall and are rotting, don't they put off an emission that's bad for the atmosphere?

Mr. DAS. Absolutely. Most trees generally have a lifecycle of about 30 years and all that carbon is simply going back into the atmosphere.

Mr. WESTMORELAND. And so all of these trees I see where it's got the beetle infestation and dying and stuff, if they're on somebody's private land, it's not on one that's managed, that doesn't count, right?

Mr. DAS. Yes, that's correct. Ideally, that good biomass that could go very well into the process of biofuel production.

Mr. WESTMORELAND. Thank you.

Chairwoman DAHLKEMPER. Following up on that, what would you say would be, Mr. Duvall, the potential income to farmers, if just half of the private forest land were eligible?

Mr. DUVALL. I'd be scared to really say that, but we could do some more research and try to get that to you, Madam Chairwoman. But it would be significant. I assure you.

Chairwoman DAHLKEMPER. Also, I guess, Mr. Gaesser, what would farmers do in terms of replacing lost demand for soybeans if the impact is what we think it could be for soybean demand?

Mr. GAESSER. There's been a really great benefit from the farmers' perspective when we have—since the biodiesel industry has been expanded because it's increased our market. It's given us an opportunity to market excess soybean oil in the United States to our biodiesel producers. And we have some studies that indicate that last summer as much as $2 a bushel of the price of soybeans was equated to biodiesel. Currently it's less than that, but it's still a huge benefit to family farmers, soybean producers around the country.

Chairwoman DAHLKEMPER. And could they go into another feedstock?

Mr. GAESSER. We would be back to an excess supply of soybean oil and it would have to be exported or it would just set in storage and that's just a detriment to the price of soybeans. It's one component that we always have. So when the value of soybean oil is low, it hurts the value of our soybeans that we sell to the processor.

Chairwoman DAHLKEMPER. But can they convert to another feedstock or some other—

Mr. GAESSER. The biodiesel industry?

Chairwoman DAHLKEMPER. Or for some other use? That's what I'm asking, I guess.

Mr. GAESSER. There's always the possibility, but it would probably require exports.

Chairwoman DAHLKEMPER. Because one of the problems I understand now is the price of soybeans is so high and the price of gasoline is so low. T economics just aren't there.

Mr. GAESSER. We're all in a Catch-22 on that. It's good for me.

Chairwoman DAHLKEMPER. It's good for you.

Mr. GAESSER. But it's not so good for biodiesel and that's the reason we need the bioenergy program to help through this shock that we have and to help through the disparity of values, I think.

Chairwoman DAHLKEMPER. Part of the thing is that it's such a young industry and we're still trying to figure out what the balance of it is.

Mr. GAESSER. That's the problem.

Chairwoman DAHLKEMPER. I'm going to ask one final question and I'll just ask for each of you to give me a quick answer. If there's one thing you would like to see Congress do right now to help this industry, save it, help it to grow, move forward, what would that one thing do?

We'll start with Mr. Noble.

Mr. NOBLE. Well, to simplify it all, I would just look for a two percent mandate across the board, federally.

Chairwoman DAHLKEMPER. Thank you.

Mr. WOOTTON. I agree with that. The RFS2 kind of does that in the sense. Pennsylvania has implemented a B2.

Chairwoman DAHLKEMPER. Two percent. Are there four states right now? Pennsylvania is the fourth one.

Mr. WOOTTON. There's three right now.

Chairwoman DAHLKEMPER. Who are the other states? Pennsylvania just passed.

Mr. WOOTTON. Pennsylvania, Minnesota, and Washington.

Chairwoman DAHLKEMPER. Massachusetts, okay. So you would agree with that, Mr. Wootton?

Mr. WOOTTON. Yes.

Mr. BAFALIS. Of course, I'd like a mandate, but what you could do now is to get the RSW out without the indirect land use. That would get the market opened up.

Mr. GAESSER. I would have to agree with the indirect land use issue, but also the extension of the tax credit is really important too.

Mr. DUVALL. Expansion of the definition of forest biomass would be most beneficial to our state.

Chairwoman DAHLKEMPER. Dr. Das?

Mr. DAS. I would agree with that and that we diversify the options of biodiesel crops.

Chairwoman DAHLKEMPER. Thank you. I yield to Mr. Westmoreland.

Mr. WESTMORELAND. Thank you, and just a couple of questions.

Mr. Duvall, could you find out for us and submit it to the Committee for record if the American Farm Bureau was ever contacted about any of these rules that have been implemented.

Mr. DUVALL. We plan to. And I would say and I sat on the Board of Directors, American Farm Bureau, and I said they would love to be able to debate the issues around that with EPA.

Mr. WESTMORELAND. And we may do that. We'll ask the chairlady to look into that.

Mr. Bafalis, you made a point that I never really had thought about until you made it, in the fact that by pushing back this mandate or whatever it is costing you business and people not wanting to do that.

Have you talked to anybody, has your industry made that known about this pushback and what it's—that they're kind of destroying the people that's trying to promote what we're trying to get going here?

Mr. BAFALIS. I don't know if I've talked to our association about it, but I think all of us know that the customers are waiting. Just by delaying it at all.

Mr. WESTMORELAND. That's a big deal.

Mr. BAFALIS. It's huge.

Mr. WESTMORELAND. That's a big deal and I would hope that you all have an association that you've gotten together with that you could let them know what kind of impact that that's having.

The other thing I wanted to ask all of you, as far as the outlet for these biofuels, I know that you know if I go to the gas station sometimes on the pump it says this could contain up to 10 percent ethanol or whatever it is. What percentage could you go to in some of these products to—what would be the max?

Mr. WOOTTON. You could actually go to 100 percent. The vehicle I drove in here today runs on 100 biodiesel.

Mr. WESTMORELAND. So it runs on 100 percent biodiesel.

Mr. WOOTTON. You can't without modifying your vehicle. The challenge with 100 percent in cold months is it will gel at 32 degrees, so if you blend it down to a B2, B5, B10, B20 that we're talking about in public policy, you don't have a big adjustment on when the product starts to freeze.

In reality, there's not enough feedstocks to get beyond a B20. Even a B10 and some people would argue. So what we're talking about is getting this product out there at small levels at B2, B5 blends, no modification to your vehicles, no modifications to your home heating system, no modification to your transportation system.

Mr. WESTMORELAND. At what point do you have to have modifications, I guess?

Mr. WOOTTON. You don't really.

Mr. WESTMORELAND. You don't? You burn 100 percent?

Mr. WOOTTON. I can burn it, as opposed to other products you have challenges with it. But in reality, you can't go, there's not a feedstock available whether you leave soybean in or not to get to these levels, yet. But as research continues, and we improve the yield of content of the bean or we find success in algae or camelina, trotrophal, all of these products are coming out. As you said, this is a new industry. We've got to do everything now to keep it going to get to these advances, as opposed to trying to do things to put barriers up and let it go away.

Mr. WESTMORELAND. I don't have any further questions. I yield back the balance of my time.

Chairwoman DAHLKEMPER. I thank the panel for coming today and for your testimony. It's certainly a very important industry, in our country going forward. I ask unanimous consent that Members will have five days to submit statements and supporting materials for the record. Without objection, so ordered. Thank you again to the panel. This hearing is now adjourned.

[Whereupon at 1:05 p.m., the hearing was concluded.]

Congress of the United States
U.S. House of Representatives
Committee on Small Business
Subcommittee on Regulations and Healthcare
2361 Rayburn House Office Building
Washington, DC 20515-6315

STATEMENT
Of the Honorable Kathy Dahlkemper, Chairwoman
House Committee on Small Business, Subcommittee on Regulations and Healthcare
"The Impact of Outstanding Regulatory Policy on Small Biofuels Producers and Family Farmers"
Thursday, May 14, 2009

As we move towards creating an environmentally sustainable future, we must ensure that the renewable fuels industry remains an important part of that future. Growth within this sector has been explosive. The biofuels industry, which is largely comprised of small firms and family farmers, is a multibillion dollar business. It sustains tens of thousands of high-wage jobs, and is giving new life to rural economies.

Just as importantly, it is paving the way for clean, sustainable energy. Last year alone, production for biodiesel reached 690 million gallons. In recent months, however, the industry has faced a number of challenges that threaten to weaken it considerably in the long-term. In today's hearing, we are going to examine these setbacks, and discuss ways to ensure this important industry is not irreversibly damaged.

Already, biofuels producers are struggling with falling demand as one third of biodiesel fuel remains idle. With the price of oil hovering around $60 a barrel, the enthusiasm for alternative energy has dampened. As a result, many investors, already skittish about the economy, are backing away. With investment down and credit tightening, biofuels businesses are losing access to operating capital at a very critical moment in this young industry's history. In a February hearing, this committee examined those obstacles. Today, we will look at the draft regulations from the EPA that have the potential to pose difficult challenges for the biofuels industry.

According to the Energy Independence and Security Act of 2007, all biofuels must achieve a 20 percent reduction in life-cycle greenhouse gas emissions, while advanced biofuels must have a 50 percent reduction. Life-cycle emissions include direct and indirect land use charges. Measuring these charges is complex and there is no consensus over how to calculate these charges. As a result, measurement is driven largely by assumptions and perhaps by some speculation as well.

Another potential problem with this law is that the EPA Administrator is only allowed to reduce the lifecycle greenhouse gas emissions standard by 10 percent, even if the current target is found not to be commercially viable. Moreover, if a specific feedstock or agricultural practice is found to produce too much greenhouse gas, it could be permanently prohibited by the EPA. This might endanger industries that rely on this type of feedstock or practice.

Fortunately, EPA has the ability to be flexible in drafting emissions profiles, and it is critical that the agency use that flexibility. To begin, it could accomplish a great deal by drafting a clear, workable framework for small firms to follow. As part of that process, biodiesel entrepreneurs should be consulted.

In moving forward, it is important that EPA account for the needs of small firms and family farmers. They are the on the front-lines offering solutions that work for our environment and our economy. We need to be sure that those leading the way in both investing and innovating are not unduly burdened.

I would like to take this opportunity to thank all of today's witnesses for their testimony. I am pleased they could be here today and I look forward to hearing from them.

Statement of
Cheryl Cook
Deputy Under Secretary for Rural Development
U.S. Department of Agriculture
Before the Subcommittee on Regulations and Healthcare
U.S. House Committee on Small Business
May 21, 2009

Madam Chairman, Members of the Subcommittee, thank you for this opportunity to testify on USDA Rural Development's renewable fuels programs. Biofuels hold great potential for reducing greenhouse gas emissions and improving the nation's energy security and national security. As a distributed resource with a tangible economic incentive for local feedstock sourcing, biofuels are also suited for production by small and mid-sized firms, including producer cooperatives. For rural America, this means that they are not merely another market for farm and forest products; they are also an opportunity for local ownership, new business formation, and sustainable economic development.

Promoting clean, sustainable, domestically produced advanced biofuels is a high priority for the President and for USDA. The United States is already a world leader in biofuels production. At the beginning of the decade, the U.S. produced 1.6 billion gallons of ethanol and two million gallons of biodiesel. Last year, those figures had soared to over 9 billion and 700 million gallons respectively. I would like at the outset of my testimony to acknowledge the vision, dedication, and hard work of a great many people, both in the private sector and in government, who have contributed to that achievement. This has been a longstanding effort, sustained on a bipartisan basis over many years, and it is paying dividends.

Clearly, however, there is much more to do, and we are rising to the challenge. The aggressive renewable fuels production targets established by the Energy Independence and Security Act of 2007 are predicated on the rapid development and commercialization of cellulosic ethanol and other advanced biofuels. The Food, Conservation, and Energy Act of 2008 (the 2008 Farm Bill) gave USDA important new tools in this area. And very recently, President Obama has announced steps to further his Administration's commitment to advance biofuels research and commercialization

Three weeks ago, on May 5, the President announced the creation of a Biofuels Interagency Working Group co-chaired by USDA, the Environmental Protection Agency (EPA), and the Department of Energy (DOE). This Working Group will coordinate with the National Science and Technology Council's Biomass Research and Development Board in undertaking its work. The President also directed Secretary Vilsack to aggressively accelerate investment in and deployment of biofuels.

USDA is working hard to implement this directive. While my testimony will focus primarily on USDA Rural Development, it should be noted that USDA's commitment to biofuels is department wide. The Forest Service is working to develop the potential of woody biomass, both for direct combustion and as a possible biorefinery feedstock. The Agricultural Research Service conducts and supports research into new and improved feedstocks and production processes. The Farm Service Agency is implementing the Biomass Crop

Assistance Program, which will provide support for the production of dedicated energy crops. The Office of the Chief Economist is implementing a competitively awarded Biodiesel Fuel Education Program to educate government, private entities, and the public about the benefits of biodiesel use. Last but certainly not least, I would like to turn now to the several ways in which USDA Rural Development supports biofuels development.

The President's May 5 statement on the need to refinance some existing biofuels investments was an acknowledgement of the disruptive impact of the global economic recession and recent volatility in commodities markets on the biofuels industry. Funds for such refinancing up to 50 percent of a loan project are available now, upon receipt of a qualified application, from Rural Development's existing Business Programs. No such applications have yet been received but we are aware of several pending applications for refinancing that we are likely to receive in the near future. We will evaluate these on their business merits when they are received.

In addition, looking forward, the 2008 Farm Bill significantly expanded USDA Rural Development's renewable energy portfolio. Rural Development is now in the process of implementing new or expanded programs to provide:

- Loan guarantees for the development, construction, and retrofitting of commercial scale biorefineries;

- Funding to encourage biorefineries to replace the use of fossil fuels in plant operations with renewable biomass;

- Funding to biofuels producers to encourage production of next generation biofuels from biomass and other non-corn feedstocks; and

- Loan guarantees and grants to agricultural producers and rural small businesses for renewable energy production, energy-efficiency investments, and energy audits.

Section 9003: Biorefinery Assistance Program.

The Section 9003: Biorefinery Assistance Program provides loan guarantees for the development, construction and retrofitting of commercial-scale biorefineries producing advanced biofuels.

The future of the biofuels industry lies in the commercialization of second and third generation feedstocks. The Section 9003 Program is a critically important investment in that evolution. The Farm Bill provided $75 million in mandatory funding for fiscal year 2009 and $245 million in fiscal year 2010. The President's budget request for Fiscal Year 2010 includes an additional $17 million in discretionary budget authority for this program.

The Section 9003 is a new program requiring development of a new rule. To accelerate implementation, the program will be administered initially through a Notice of Funding

Availability (NOFA) pending development of new regulations. The 2009 NOFA was published November 20, 2008. Two application windows were announced. The first closed on December 31, 2008.

From Round 1, the first award was made in January, 2009, for an $80 million loan guarantee for the production of cellulosic ethanol. A second application is currently under review. This is an application for a $25 million loan guarantee to retrofit a biodiesel refinery to produce second generation biofuel.

The Round 2 application window closed April 30, 2009. Five applications from Round 2 are currently under review. These involve second generation biofuel technologies to produce cellulosic ethanol, biodiesel, and natural gas and electricity from anaerobic digestion. Awards for the second round are projected for September 15, 2009.

Section 9003 Biorefinery Assistance obligation and applications under review

Applications	State	Request Amount (Guarantees)	Status
Round One (12/31/2008)			
Range Fuels, Inc. and Range Fuels Soperton	Georgia	$80,000,000	Obligated
	Minnesota	$25,000,000	Under Review
		$105,000,000	
Round Two (4/30/2009)			
	Iowa	$15,000,000	Under Review
	New Mexico	$60,000,000	Under Review
	Massachusetts	$5,000,000	Under Review
	Wisconsin	$124,500,000	Under Review
	Michigan	$10,675,000	Under Review
		$215,175,000	

(The names of all applicants under review for Section 9003 loan guarantees are withheld pending completion of the review of their application and, if approved, a public announcement.)

A total of 17 Section 9003 applications were received in both rounds. Loan guarantee requests amounted to $1.05 billion; though not all will qualify, total eligible applicants potentially exceed the $224 million program allocation for 2009. A breakdown of the applications by amount requested suggests that the greatest number of applicants sought loan guarantees for amounts less than $50 million. Four of the 6 applications still under review seek loan guarantees amounts of less than $50 million.

These are the initial responses to a new program, but the first two rounds of applications clearly suggest that the program is well received by small producers.

Section 9003 Biorefinery Assistance applications by amount requested

Requested Amount	Number	Average	Total
<50M	8	18,312,500	146,500,000
50-100M	4	62,959,902	251,839,609
>100M	5	130,626,701	653,133,507
All	17	61,851,360	1,051,473,116

Section 9004: Repowering Assistance.

The Section 9004: Repowering Assistance Program provides for payments to biorefineries (that were in existence at the time the 2008 Farm Bill was passed) to replace fossil fuels used to produce heat or operate biorefineries with renewable biomass.

The Farm Bill provides $35 million for fiscal year 2009 that will remain available until the funds are exhausted. Funds will be made available, once a rulemaking is issued for this program.

Section 9005: Bioenergy Program for Advanced Biofuels.

The Section 9005: Bioenergy Program for Advanced Biofuels provides for payments to eligible agricultural producers to support and ensure an expanding production of advanced biofuels. The Farm Bill provides $55 million annually in fiscal years 2009 and 2010, $85 million in fiscal year 2011, and $105 million in fiscal year 2012.

Section 9007: Rural Energy for America Program.

The Section 9007: Rural Energy for America Program expands and renames the program formerly called the Renewable Energy Systems and Energy Efficiency Improvements Program (formerly Section 9006). Since the enactment of the first-ever Energy Title in a Farm Bill in 2002, this program has provided grants and loan guarantees to agricultural producers and rural small businesses for more than 1,800 energy efficiency and renewable energy projects ranging from biofuels to wind, solar, geothermal, methane gas recovery, and other biomass. While not limited to biofuels, the Section 9007 Program is nonetheless available on a competitive basis to biofuels producers.

For the Section 9007 Program, the Farm Bill provided $55 million in mandatory funding for fiscal year 2009, $60 million for fiscal year 2010, and $70 million each year for fiscal years 2011 and 2012. It also authorizes discretionary funds. An additional $5 million in discretionary funding was allocated for fiscal year 2009. The President's budget request for Fiscal Year 2010 includes an additional $68 million in discretionary budget authority.

Four percent of Section 9007 funding is reserved for Energy Audits and technical assistance. A Notice of Solicitation of Applications (NOSA) for the Energy Audit and technical assistance funding was published March 11, 2009 with an application deadline of June 9, 2009. This is a competitive grant program and the application window is now open. Once all applications have been received they will be reviewed and scored. We anticipate announcing awards by August 1, 2009.

The remainder of Section 9007 funding will be awarded on a competitive basis and will finance investments in energy efficiency and renewable energy production. A Notice of Funds Availability (NOFA) is currently under review. An announcement is anticipated very soon.

In summary, the 2008 Farm Bill provides USDA Rural Development with a suite of programs to spur the deployment of advanced biofuels, support the development of new production technologies, and accelerate the shift to second and third generation feedstocks. Several programs are new and are just now being implemented.

The United States has a compelling need -- for national security, environmental, and energy security reasons -- to enhance our use of renewable fuels. The production of Advanced Biofuels presents an historic economic opportunity for agricultural producers and rural America. The President is committed to seizing that opportunity, and we at USDA Rural Development are working hard to help turn that vision into a reality. Thank you.

MARGO T. OGE
DIRECTOR, OFFICE OF TRANSPORTATION AND AIR QUALITY
OFFICE OF AIR AND RADIATION
U.S. ENVIRONMENTAL PROTECTION AGENCY

COMMITTEE ON SMALL BUSINESS
SUBCOMMITTEE ON REGULATIONS AND HEALTHCARE
UNITED STATES HOUSE OF REPRESENTATIVES
MAY 21, 2009

Written Statement

Madam Chairman and members of the Subcommittee, I appreciate the opportunity to appear before you today to testify on the renewable fuel provisions of the Energy Independence and Security Act of 2007 (EISA). EPA recently signed a notice of proposed rulemaking for the Renewable Fuel Standard as required by EISA, commonly called RFS2. This is an important step toward achieving the significant energy security and greenhouse gas (GHG) emission reduction benefits of this program. Over the coming months we will review the comments and develop a final rule that responds as appropriate to the public comments.

The proposed rule would revise the current RFS program, established by the Energy Policy Act of 2005, and implement several important changes to these renewable fuel requirements. EISA requires a substantial increase in the volume of renewable fuel and extends the timeframe for reaching the new target of 36 billion gallons to 2022. Several specific volume targets must also be met by 2022, including 21 billion gallons of advanced biofuels, comprised of 16 billion gallons of cellulosic biofuel, 4 billion gallons of "other" advanced biofuels, and a minimum of 1 billion gallons of biomass-based

diesel. We estimate that these volumes of biofuels will reduce GHG emissions from transportation by an average annualized emissions rate of 150-160 million tons of CO2 equivalent per year-- reductions estimated to be equivalent to annual emissions produced by 23 to 24 million vehicles. EPA also has calculated that the RFS2 rule could bring about more than $3 billion in total energy security benefits, displacing an estimated 15 billion gallons of petroleum-based gasoline and diesel, as well as provide an expanded market for agricultural products. Our analysis estimates that by 2022, the RFS program will increase net U.S. farm income $7.1 billion, an increase of more than 10 percent. There will also be a significant increase in domestic markets for cellulosic feedstocks as well as many new business opportunities for entrepreneurs involved in the production, distribution, and sale of renewable fuels and their feedstocks.

EPA is sensitive to the potential impacts regulations may have on small businesses and further recognizes that a significant number of biofuel production facilities are indeed small businesses. We believe that EPA's proposed rules to implement the Renewable Fuel Standard program will provide significant direction for further investment in the renewable fuel industry. As of this Spring, there are 138 biodiesel production facilities with plant size ranging from less than 1 million gallons per year (a few tank trucks of product per week) to more than 50 million gallons per year (two dozen trucks of product per day). The most common size is 8.5 million gallons per year, so most biodiesel facilities are small in comparison to ethanol plants and especially petroleum refineries. Most biodiesel plants are individually-owned businesses employing just a few staff and may be run as family businesses. These smaller plants typically

produce small batches of fuel with periods of downtime when feedstock prices are not favorable. If our country is to meet the renewable fuel standards, and in particular the biomass-based diesel standard as mandated by Congress, in the near term we will be dependent on many such businesses. For this reason, we coordinated extensively throughout the development of the NPRM with the biodiesel industry, ethanol industry, and other stakeholders and incorporated their feedback into the design of the program.

We have heard from many of the small businesses in the renewable fuel industry and have provided as much flexibility as possible under the statute to address their concerns in our regulatory proposal. Later in this testimony, I will describe two key provisions of the proposal which we believe are of particular value to small businesses in the biodiesel industry. In each case, we are looking forward to engaging the community of affected small businesses further and considering their comments provided to us through the public comment process.

A key component of the RFS2 program is the lifecycle greenhouse gas impact assessment of renewable fuels. EISA created the first mandatory lifecycle greenhouse gas (GHG) reduction thresholds for renewable fuels used in the U.S. The statute assigns specific emission reduction thresholds for each of the four categories of renewable fuels required by the Act -- requiring a 20 to 60 percent improvement compared to the baseline lifecycle emissions value for gasoline and diesel used in 2005. EISA requires EPA to look broadly at lifecycle analyses and to develop a methodology that accounts for each of

the important factors that may significantly influence this assessment, including both direct and indirect emissions, such as significant emissions from land use changes.

EPA, working with experts, including those from the Departments of Agriculture and Energy as well as industry and academia, has spent the last year and a half developing a robust and scientifically supported methodology that identifies direct and indirect emissions, including those resulting from international land use change. We believe this methodology meets our statutory obligations under EISA.

At the same time, we have heard concerns that the state of the science is too uncertain regarding the assessment of GHG emissions, particularly those related to international land change. Recognizing that lifecycle analysis is a new part of the RFS program and much of our methodology represents groundbreaking science, the Agency has set forth multiple opportunities to solicit public and expert feedback on our proposed approach. In addition to the formal comment period on the proposed rule, EPA plans to hold a two-day public workshop focused specifically on lifecycle analysis during the comment period. Additionally, although our lifecycle analysis relies whenever possible on peer-reviewed models and data, between this proposal and the final rule, we will conduct additional peer-reviews of key components of our analysis.

In regard to the implications of lifecycle greenhouse gas reduction requirements for biodiesel facilities and other existing small renewable fuel producers, it is important to highlight that the Act "grandfathers" renewable fuel produced from facilities either in

production or under construction prior to enactment. This effectively means that biodiesel, corn ethanol, sugarcane ethanol, and any other renewable fuel produced by existing facilities in the U.S. or abroad automatically qualify for use in compliance with the 15 billion gallon portion of the total 36 billion gallon mandate that may be satisfied with non-advanced biofuels. This includes approximately 110 U.S. biodiesel facilities with a production capacity of approximately 1.9 billion gallons, as well as ethanol production facilities with an estimated capacity of 15 billion gallons of corn ethanol.

As I mentioned earlier, there are two key provisions in the RFS proposal that would help provide more flexibility to biodiesel producers. The first would make it easier for renewable fuels to meet the more stringent lifecycle GHG thresholds, including the biomass-based diesel threshold of 50 percent. Based on our two primary scenarios in the proposal, biodiesel produced from soy oil does not attain the necessary GHG threshold to qualify for the bio-mass-based diesel category. In one of our two primary scenarios biodiesel from soy oil attains a 22 percent reduction in GHG emissions over the baseline, which falls short of the 50 percent reduction requirement. However, biodiesel from waste fats and oils attains it by a considerable margin, attaining an 80 percent reduction. In light of the results from our lifecycle analysis, and in order to support the goals of the Act for the biomass-based diesel standard, we have offered a proposed option to apply additional flexibility specific to biodiesel producers. The proposal seeks comment on various approaches for allowing facilities that use multiple feedstocks during the year, such as soy oil and waste grease, to use the average GHG reduction profile so their product could also qualify for the biomass-based diesel standard. We also

have the option under EISA to lower the GHG threshold for biomass-based diesel to 40 percent from 50 percent. By allowing averaging, and lowering the threshold to the minimum allowable 40 percent, biodiesel producers could meet the lifecycle threshold by using as little as 31 percent use of waste fats and oils and as much as 69 percent soy oil. This corresponds to roughly the same ratio of soy oil use that biodiesel producers use today. Based on current information from the National Biodiesel Board, approximately 30 percent of the biodiesel produced today is produced from fats and greases. At least 70 percent of biodiesel production facilities today are capable of processing waste fats and oils in addition to soy oil and the others could be modified to do so. By taking advantage of this flexibility to average feedstocks, biodiesel producers will be able to produce sufficient volumes of feedstocks to meet or exceed the 1.0 billion gallon volume mandate established by EISA for biomass-based diesel in 2012.

Second, the proposal also offers an option that would allow biodiesel to contribute toward the 15 billion gallon conventional biofuel standard. The proposal seeks comment on continuing a provision developed in the RFS1 final rule to value each renewable fuel on an energy equivalent basis. If we were to finalize this approach for RFS2, it would provide biodiesel with a 50 percent greater credit due to its higher energy density. The value of these credits would help to improve the competitiveness of biodiesel in the renewable fuels marketplace.

In closing, I believe EPA has put forward a proposal that is responsive to Congressional intent for the RFS program. We believe we have developed the most

comprehensive approach undertaken to date to assess the lifecycle GHG impacts of renewable fuels. We are committed also to improvements in that assessment. With the benefit of input we will receive on the proposal during the public comment period, I am confident that we will be able to complete a RFS2 rule that will achieve the benefits envisioned by Congress--to reduce our dependence on foreign sources of crude oil, diversify our energy portfolio, and provide important reductions in greenhouse gas emissions. This rule will also provide important market opportunities for businesses to expand in the areas of agricultural and cellulosic feedstocks, renewable fuel technology and production, and renewable fuel distribution and sale.

We look forward to continuing the dialogue on our approach through the public comment process on the proposal.

Written Testimony of
Michael Noble
Lake Erie Biofuels, President
Before the U.S. House Committee on Small Business
Subcommittee on Regulations and Healthcare
May 21, 2009

Summary of Testimony:
There are significant economic, energy security and environmental public policy benefits associated with the domestic production and use of biodiesel. Though the U.S. biodiesel industry has experienced growth since 2004, biodiesel producers find themselves in the midst of a severe economic crisis that threatens the nation's ability to domestically produce low carbon, renewable diesel replacement fuel. In 2009, we anticipate production of biodiesel will be less than half of 2008 levels and utilize approximately 15% of the nation's overall production capacity.

The U.S. biodiesel industry is not seeking the creation of new programs, but is simply asking for expedient implementation of a stable, reliable policy framework that will allow the industry to weather the current economic storm and meet the readily attainable goals established for Biomass-based Diesel by the Renewable Fuel Standard (RFS-2) program, as enacted in the Energy Independence and Security Act (EISA) of 2007 (P.L. 110-140). Accordingly, industry asks the Environmental Protection Agency (EPA) to ensure that the statutory 2009 volume goals for Biomass-based Diesel are enforced.

RFS-2, by statute, requires EPA to consider significant indirect emissions when calculating the greenhouse gas emission (ghg) profile of biofuels. Sound science and common sense dictate that a fair, honest evaluation of international land use decisions account for substantial factors completely unrelated to biofuels production such as forestry, subsistence farming and cattle ranching. The ghg score of a biofuel should be based on sound science and not be penalized due to unrelated factors that are driving land use changes, many of which are difficult to account for in ghg emission modeling. In addition, the same standards and evaluation must be applied to petroleum diesel fuel - the fuel to which Biomass-based Diesel is being compared for purposes of determining its ghg emission profile.

As the RFS-2 rulemaking process moves forward, EPA should work constructively with stakeholders to implement a workable program that can meet the RFS-2 volume goals for Advanced Biofuels. The EPA should not structure the program in a manner that restricts feedstock for low-carbon diesel replacement fuel to only animal fats and restaurant grease by disqualifying vegetable oils as an eligible Advanced Biofuels feedstock. Vegetable oils account for more than sixty percent of the feedstock that is available to meet the RFS-2 Biomass-based Diesel targets, and the RFS-2 goal of displacing petroleum with low carbon renewable fuel simply cannot be met if vegetable oils are disqualified from the program. This outcome is not consistent with either sound science or sound energy policy.

Lastly, U.S. agriculture has historically realized increased productivity and yields over time. As technology improves, it is reasonable to assume that these gains in efficiencies will continue. Further, there is a powerful economic incentive for agriculture producers around the globe to adopt more efficient practices. As these efficiencies are realized in the future, the potential impact of land use change due to biofuels production will be further diminished.

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Chairwoman Dahlkemper, Ranking Republican Member Westmoreland and Members of the Subcommittee on Regulations and Healthcare, I thank you for the opportunity to testify today on behalf of the National Biodiesel Board (NBB) about the importance of the Renewable Fuels Standard to the U.S. biodiesel industry and the potential impact Indirect Land Use Change (ILUC) assumptions could have on implementation of this worthwhile program.

About NBB: NBB is the national trade association representing the biodiesel industry as the coordinating body for research and development in the United States. It was founded in 1992 by state soybean commodity groups who were funding biodiesel research and development programs. Since that time, the NBB has developed into a comprehensive industry association which coordinates and interacts with a broad range of cooperators including industry, government and academia. NBB's membership is comprised of biodiesel producers; state, national and international feedstock and feedstock processor organizations; fuel marketers and distributors; and technology providers.

About Lake Erie Biofuels: Lake Erie Biofuels is a $75 million, privately owned 45mgpy refinery based in Erie Pennsylvania, with access to transportation assets in rail, truck and vessel/barge via the Great Lakes. Lake Erie Biofuels recycles used oils, refines soybean oil and purifies feedstocks turning them into tomorrow's fuels. LEB's sustainability efforts reach along all first-, second-, and third-generation feedstocks through partnerships with state-of-the-art organizations. Lake Erie Biofuels retains a 35 full time employee workforce and is a BQ-9000 Certified Producer and Marketer.

Background and Industry Overview: Biodiesel is a diesel replacement fuel made from agricultural oils, fats and waste greases that meets a specific commercial fuel definition and specification. The fuel is produced by reacting feedstock with an alcohol to remove the glycerin and meet the D6751 fuel specifications set forth by the American Society for Testing and Materials (ASTM International). Biodiesel is one of the best-tested alternative fuels in the country and the only alternative fuel to meet all of the testing requirements of the 1990 amendments to the Clean Air Act.

Biodiesel is primarily marketed as a 5% blending component with conventional diesel fuel, but can be used in concentrations up to 20%. It is distributed utilizing the existing fuel distribution infrastructure with blending occurring both at fuel terminals and "below the rack" by fuel jobbers. Biodiesel is beginning to be distributed through the petroleum terminal system. To date, biodiesel is available in over 40 fuel distribution terminals. In the past year, two major pipeline companies have successfully tested B5 blends in pipelines, and the biodiesel industry has committed funds to continue to study the technical needs required for moving biodiesel through U.S. pipelines. Already, biodiesel is moved through pipelines in Europe and extending that capability in the U.S. would significantly increase biodiesel penetration in the U.S. diesel fuel market.

Biodiesel Public Policy Benefits: There are compelling public policy benefits associated with the enhanced production and use of biodiesel in the U.S.

Biodiesel Reduces our Dependence on Foreign Oil: Biodiesel can play a major role in expanding domestic refining capacity and reducing our reliance on foreign oil. The 690 million gallons of biodiesel produced in the U.S. in 2008 displaced 38.1 million barrels of petroleum, and increased production and use of biodiesel will further displace foreign oil. In addition, biodiesel is an extremely efficient fuel that creates 3.2 units of energy for every unit of fuel that is required to produce the fuel.

Biodiesel is Good for the Environment: Biodiesel is an environmentally safe fuel, and is the most viable transportation fuel when measuring its carbon footprint, life cycle and energy balance. The U.S. Department of Agriculture (USDA)/Department of Energy (DoE) lifecycle study shows a 78% reduction in direct lifecycle CO2 emissions for B100. 1 billion gallons of biodiesel will reduce current life cycle greenhouse gas emissions by 16.12 billion pounds, the equivalent of removing 1.4 million passenger vehicles from U.S. roads. In 2008 alone, biodiesel's contribution to reducing greenhouse gas emissions was equal to removing 980,000 passenger vehicles from America's roadways.

Biodiesel's emissions significantly outperform petroleum-based diesel. Research conducted in the U.S. shows biodiesel emissions have decreased levels of all target polycyclic aromatic hydrocarbons (PAH) and nitrited PAH compounds, as compared to petroleum diesel exhaust. These compounds have been identified as potential cancer causing compounds.

Biodiesel is the only alternative fuel to voluntarily perform EPA Tier I and Tier II testing to quantify emission characteristics and health effects. That study found that B20 (20% biodiesel blended with 80% conventional diesel fuel) provided significant reductions in total hydrocarbons; carbon monoxide; and total particulate matter. Research also documents the fact that the ozone forming potential of the hydrocarbon emissions of pure biodiesel is nearly 50% less than that of petroleum fuel. Pure biodiesel typically does not contain sulfur and therefore reduces sulfur dioxide exhaust from diesel engines to virtually zero.

The Biodiesel Industry is Creating Green Jobs and Making a Positive Contribution to the Economy: In 2008 alone, the U.S. biodiesel industry supported 51,893 jobs in all sectors of the economy. This added $4.287 billion to the nation's Gross Domestic Product (GDP) and generated $866.2 million in tax revenue for federal, state and local governments.

By conservative estimates, there is domestic feedstock available to support 1.77 billion gallons of annual biodiesel production in the U.S. The domestic industry has the capacity to support this level of production. The production of 1.77 billion gallons of fuel would support 78,619 jobs; add $6.660 billion to the GDP; displace 97.8 million barrels of petroleum; generate $1.345 billion in revenue for federal, state and local governments; and reduce greenhouse gas emissions by 27.4 billion pounds - the equivalent of removing 2.38 million passenger vehicles from U.S. roads.

The Biodiesel Industry Stimulates Development of New Low-Carbon Feedstocks: The feedstock used to produce U.S. biodiesel has increasingly diversified, with waste products such as animal fat and used restaurant grease (yellow grease) making up a larger portion of the feedstock used to produce fuel. Biodiesel production is currently the most efficient way to convert lipids into low-carbon diesel replacement fuel, and as a result, industry demand for less expensive, reliable sources of fats and oils is stimulating promising public, private and non-profit sector research on new alternative feedstocks such as algae.

Algae's potential as a source of low carbon fuel has been well documented, and a stable, growing

biodiesel industry is necessary if the U.S. is to eventually benefit from the commercial scale production of algal-based biofuels. The NBB estimates that for every 100 million gallons of biodiesel that is produced from algae, 16,455 jobs will be created and $1.461 billion will be added to the GDP.

U.S. Biodiesel Industry is Facing Severe Economic Hardship: Despite recent growth, the industry is in the midst of an economic crisis. Plants are having difficulty accessing operating capital. Volatility in commodity markets; reduced demand and inability to compete in the European marketplace are making it difficult for producers to sell fuel. Lastly, uncertainty relating to federal policy that is vital to the industry's survival is sending inconsistent signals to the marketplace and undermining investor confidence.

If prolonged, this downturn will lead to a severe retraction in U.S. biodiesel production capacity. Due to current market conditions, less than one-third of the industry's facilities are currently producing fuel. NBB estimates that absent any change in federal policy, U.S. biodiesel production will likely fall to 300 million gallons in 2009, which would cost the U.S. economy more than 29,000 jobs. This situation threatens the nation's ability to meet the advanced biofuels goals established in the 2007 Energy Bill.

A Reliable Policy Framework is Needed for U.S. Biodiesel Industry: The U.S. biodiesel industry is not seeking the creation of new programs. Instead, common-sense improvements and thoughtful implementation of existing initiatives will help the industry survive in this difficult economic climate. Specifically, a multi-year extension of the biodiesel tax incentive and successful implementation of a workable RFS-2 are needed if the nation is to reap the future economic, environmental, and energy security benefits associated with the production and use of biodiesel. For purposes of today's testimony, I will focus on RFS-2.

The Energy Independence and Security Act and the Renewable Fuels Standard: The Energy Independence and Security Act (P.L. 110-140), enacted on December 19 2007, significantly expanded and improved the RFS.

By statute, RFS-2 provides for the use of 36 billion gallons of renewable fuels in the U.S. by 2022. The program establishes a use schedule for Conventional Biofuels and Advanced Biofuels. The schedule for Conventional Biofuels, which must reduce ghg emissions by 20% compared to the baseline fuel it is displacing, increases from 10.5 billion gallons in 2009 to 15 billion gallons in 2015. From 2015 through 2022, the use requirement for Conventional Biofuels remains constant at 15 billion gallons. Biofuel production facilities placed in service prior to enactment of P.L. 110-140 are exempt from 20% ghg reduction requirement that is applicable to Conventional Biofuels.

RFS-2 also establishes a use schedule for Advanced Biofuels that begins at 600 million gallons in 2009 and increases to 21 billion gallons by 2022. Within the Advanced Biofuels schedule, there are specific use and ghg reduction requirements for Cellulosic Biofuels, Undifferentiated Advanced Biofuels, and Biomass-based Diesel. The statutory date of enactment for the RFS-2 program is January 1, 2009.

Implementation of a Workable RFS-2 Biomass-based Diesel Schedule of Vital Importance to the U.S. Biodiesel Industry: For the first time, RFS-2 specifically requires a renewable component in U.S. diesel fuel as part of the program's Advanced Biofuels schedule. Specifically, RFS-2 requires the use of 500 million gallons of Biomass-based Diesel in 2009; 650 million gallons in 2010; 800 million gallons in 2011; and 1 billion gallons in 2012. Between 2012 and 2022, a minimum of 1 billion gallons must be used, and the Administrator of the EPA has the authority to set the use requirement at a higher level.

To qualify as Biomass-based diesel, fuel must reduce greenhouse gas (ghg) emissions by 50% compared to conventional diesel fuel. The EPA Administrator is provided the authority to reduce the ghg emission target to 40%. By statute, the Biomass-based Diesel requirement starts in 2009, and thus, is the first component of the Advanced Biofuels schedule to be implemented. Though fuels in addition to biodiesel will in all likelihood qualify for this schedule, the U.S. biodiesel industry is the only entity producing low carbon, renewable diesel replacement fuel at commercial scale that is readily accepted in the domestic marketplace.

As is mentioned earlier in this testimony, the U.S. biodiesel industry is in the midst of an economic crisis. Plants are closing and production is well below comparable levels from last year. The EPA has the regulatory authority it needs to implement a workable program that is consistent with sound energy and environmental policy, and successful implementation of RFS-2 will help create the market demand that will allow the industry to survive. A viable domestic biodiesel industry is in the nation's best interests, and expedient implementation of a workable Biomass-based Diesel program is a top industry priority. Accordingly, industry asks the EPA to take concrete steps to ensure that the 2009 volume goals established by statute for Biomass-based Diesel are enforced.

The Inexact Nature of Indirect Land Use Change (ILUC) Assumptions: As mentioned previously, renewable diesel replacement fuel must reduce ghg emissions by 50% compared to conventional diesel fuel to qualify for the Biomass-based Diesel program. The science pertaining to *direct* emissions is well established. The USDA/DoE lifecycle study was initially published in 1998, and has been continually refined and updated since this time. According to this model, biodiesel reduces ghg emissions by 78%.

By statute, RFS-2 specifies that significant indirect emissions are to be considered when calculating a renewable fuel's ghg emission profile. EPA has opted to account for ILUC, in particular international land use assumptions, in its ghg calculations as part of the rulemaking process. There is neither consensus in the scientific community nor a widely accepted methodology that could be deemed credible to accurately calculate the impact of U.S. biofuel production on international land use decisions. Nevertheless, the EPA's decision to rely on a questionable ghg methodology inaccurately attributes significant deforestation in South America to the cultivation of oilseeds such as soybeans and canola produced in the U.S.

The U.S. biodiesel industry currently produces the most sustainable fuel available in the marketplace. The NBB fully supports efforts and initiatives that are designed to protect sensitive ecosystems such as the rainforests in South America and Southeast Asia.

With that said, sound science and common sense dictate that a fair, honest evaluation of international land use decisions account for substantial factors completely unrelated to biofuels production such as forestry, subsistence farming and cattle ranching. The ghg score of a biofuel should not be penalized due to unrelated factors that are driving land use changes, many of which are difficult to account for in ghg emission modeling. In addition, the same standards and evaluation must be applied to petroleum diesel fuel - the fuel to which Biomass-based Diesel is being compared for purposes of determining its ghg emission profile.

It is our understanding that the EPA's methodology places significant emphasis on land use changes in Brazil. Specifically, the EPA attributes deforestation in the Brazilian rainforest to U.S. biodiesel production, and this dubious assumption is used as the rationale to penalize the ghg emission score of U.S. biodiesel produced from vegetable oils. From 2004 through 2008,

U.S. biodiesel production increased from 25 million gallons to 690 million gallons. If U.S. biodiesel production was causing significant land use change in Brazil, common sense would dictate land dedicated to Brazilian soybean production would have shown a corresponding increase.

Yet in 2004, soybean production in Brazil covered 22.917 million hectares. In 2008, soybean production accounted for 21.400 million hectares – a *decrease* of 1.5 million hectares. As U.S. biodiesel production increased by 665 million gallons, land dedicated to soybean cultivation in Brazil decreased by 1.5 million hectares – a real world outcome that casts significant doubt on EPA's preliminary assumptions and again highlights that other significant factors outside of U.S. biofuels production drive land use decisions.

Impossible to Meet Biomass-based Diesel Requirements Without Vegetable Oils as Qualifying Feedstocks: As the rulemaking proceeds and is ultimately finalized, a program structured in a manner that allows vegetable oils, including domestically-produced soybean and canola oil, to qualify as feedstock for the Biomass-based Diesel schedule is consistent with sound science and policy. Vegetable oils account for more than sixty percent of the feedstock that is available to meet the RFS-2 Biomass-based Diesel targets, and the use requirements established by this component of the Advanced Biofuels schedule simply cannot be met if these feedstocks are disqualified from the program. We are hard pressed to believe this potential outcome is consistent with the will of Congress or sound environmental policy that values the displacement of petroleum diesel with low-carbon renewable fuels.

Absent vegetable oils as a qualifying feedstock, biofuel producers will be forced to rely almost entirely on animal fats and yellow grease (used restaurant grease) to meet the RFS-2 Biomass-based Diesel requirements. The U.S. biodiesel industry estimates that even with the most optimistic assumptions, the most biodiesel that could be produced in a year from this pool of limited feedstock would be 410 million gallons. Though animal fats and restaurant grease are important resources for biodiesel production - and U.S. producers can make quality fuel that meets the ASTM D6751 fuel specification from this feedstock – there simply will not be enough of these feedstocks to produce the fuel needed to meet either the 500 million gallons of Biomass-based Diesel required in 2009 or the 1 billion gallons that is ultimately required in 2012. By contrast, there is ample feedstock to meet the Biomass-based Diesel schedule if vegetable oils are permitted as a feedstock.

It is also important to note other potential unintended policy impacts if the Biomass-based Diesel feedstock is limited to animal fats and restaurant grease. For example, this would add significant volatility and disruption in the markets as it pertains to the pricing of these commodities, and could compel entities not impacted by the RFS-2 program that currently use these commodities in the production of other goods to seek lipids from less-sustainable sources. In addition, given winter and summer fuel blending regimes that are widely accepted and used in the marketplace, a program that limits U.S. biodiesel production to animal fats and restaurant grease would in essence make the U.S. industry seasonal in nature. Neither of these unintended outcomes is consistent with sound energy or environmental policy.

GHG Calculations Must Account for Improved Agriculture Yields and Efficiency: U.S. agriculture has historically realized increased productivity and yields over time. As technology improves, it is reasonable to assume that these gains in efficiencies will continue. Further, there is a powerful economic incentive for agriculture producers around the globe to adopt more efficient practices. As these efficiencies are realized in the future, the potential impact of land use change due to biofuels production will be further diminished.

New technology will add significantly to the U.S. raw material supply. Though the feedstock used to produce U.S. biodiesel has grown more diversified over time, soybean oil has been the most utilized biodiesel feedstock to date in the U.S. Based upon historical yield trends, domestic production of soybeans will continue to increase. However, a major research focus of companies such as Pioneer and Monsanto has been to create "virtual acres" through stepwise enhancements in yield technology and/or oil content. Monsanto plans to introduce new technology that can increase soybean yields 9 to 11 percent. Pioneer, a DuPont Company, is commercializing soybean varieties that increase yields by as much as 12 percent. After years of research investments by the life science companies, these technologies have reached commercialization and are set to have a meaningful impact on soybean yields in 2010. More than 90 percent of U.S. farmers currently utilize herbicide-resistant soybean varieties, demonstrating farmers' willingness and desire to adopt technology that can enable improved profits through increased yields or decreased costs. If this same 90 percent of U.S. soybean acres adopted the new yield technology, more than 60 million acres could see a 10 percent increase in yield. This equates to more than 250 million additional bushels of soybeans (the equivalent of 380 million gallons of biodiesel) without increasing acreage in the U.S.

The same benefit can be achieved by increasing soybean oil content. Current industry genetic programs suggest 10 percent oil increases are achievable within the next few years, and increasing soybean oil content by that percentage would generate approximately 120 million gallons of additional oil if adopted on 50 percent of soybean acreage. New approaches for achieving even higher oil levels in plants are being actively researched. The NBB has partnered with the Donald Danforth Plant Science Center to identify novel approaches to enhance oil production in soybeans and other oilseeds. This work centers on the hypothesis that the ability to utilize available carbon limits oil production. Therefore, the Danforth Center's work will focus on engineering carbon sinks that will pull metabolites through the oil production process in plants. This is a three-year program that was initiated in 2008.

The soybean industry will continue to play a key role in providing feedstock for the biodiesel industry for years to come. Based upon current technology available to soybean producers, if processing capacity expands it is reasonable to project the production of at least 780 million gallons of biodiesel with existing soybean oil supplies in 2012. This estimate does not take into consideration soybean oil exports, amounting to more than 300 million gallons of soybean oil in 2008, which could be diverted into domestic biodiesel production. Nor does it take into account an estimated one billion bushels of soybeans that are exported and could be a source of biodiesel feedstock if the domestic crushing industry further expanded capacity.

In Conclusion: The provision in RFS-2 establishing the Biomass-based Diesel Schedule is consistent with energy and environmental policy that values the displacement of petroleum diesel with low carbon renewable fuels. Expedient implementation of a workable RFS-2 program is a top priority for the U.S. biodiesel industry that will allow the nation to continue reaping the economic, energy and environmental benefits associated with the increased production and use of biodiesel.

Chairwoman Dahlkemper, Ranking Republican Member Westmoreland, and Members of the Subcommittee, I again thank you for having the opportunity to testify before you today, and I would be pleased to answer any questions you may have.

Testimony of Ben Wootton
President, Keystone BioFuels, Inc
Shiremanstown, Pennsylvania
Before the U.S. House of Representatives Committee on Small Business, Subcommittee on Regulations and Healthcare, entitled *"The Impacts of Outstanding Regulatory Policy on Small Biofuels Producers and Family Farmers."*
May 21, 2009

Chairwoman Dahlkemper, Ranking Member Westmoreland and Members of the Subcommittee, I thank you for the opportunity to testify today.

I am here today on behalf of Keystone Biofuels, a small biodiesel production company located in Pennsylvania. We are the longest running biodiesel production facility in the state and work extensively with State and Federal public officials in forming and implementing good public policy on biodiesel. Biodiesel is a high-quality, low carbon renewable diesel replacement fuel that is readily accepted in the marketplace. I applaud you and the Committee in taking an interest on the impacts of outstanding regulatory policy on small biofuel producers and family farmers.

Although there are several outstanding regulatory policies that impact biodiesel, I'm going to focus my testimony today on the 2008 Farm Bill's Section 9005 – The Bioenergy Program for Advanced Biofuels.

Bioenergy Program:

The Farm Bill reauthorizes the Bioenergy Program for Advanced Biofuels. The program provides support to, among others, biodiesel producers to help offset feedstock costs. Specifically, the program:

- Provides $300 million in mandatory funding for the program over the 5 year duration of the Farm Bill. In addition, the legislation authorizes an additional $25 million in funding each year from FY 2009 through FY 2012, subject to Congress providing this additional funding during the course of the annual appropriations process.

- Ethanol produced from corn would not qualify for the program.

- Creates two classes of producers for purposes of payments under the program:

  Producers with a production capacity smaller than 150 million gallons will be eligible for 95% of the money provided for the program.

  Producers with a capacity over 150 million gallons will qualify for 5% of program funds.

- Legislation allows the Secretary of Agriculture to structure the program in a manner that will allow all gallons of production to qualify for the program. The final structure will ultimately be determined by the USDA rulemaking process that will implement the program. This is a significant change from earlier versions of the legislation that specifically limited program support to new production.

Why is the Bioenergy Program Important for U.S. Biodiesel?

U.S. biodiesel industry is facing an economic crisis. Plants are having difficulty accessing operating capital. In addition, there is a reduced demand for biodiesel due to the economic downturn and delayed implementation of the RFS-2 Biomass-based Diesel schedule. If prolonged, this downturn will lead to a severe retraction in the U.S. production capacity. Due to current market conditions, less than one-third of the industry's facilities are currently producing fuel. The program provides support to biodiesel producers to help offset the costs of the feedstock used to produce biodiesel. Feedstock costs make up more than 80% of production costs. Over the past year, feedstock costs have remained volatile, reaching record highs and making it difficult to economically produce the fuel. A Bioenergy Program that provides payment on all gallons of production will help all U.S. biodiesel producers displace petroleum with clean-burning, domestically produced biodiesel.

The U.S. Benefits from Increased Biodiesel Production and Use:

Energy Security: The U.S. biodiesel industry is providing both new fuel and new refining capacity to the nation's energy infrastructure. Nearly 700 million gallons of biodiesel were produced in 2008 displacing almost 28 million barrels of petroleum. Biodiesel creates 3.5 units of energy for every unit of energy used in the production of the fuel.

Environmentally Friendly: Biodiesel reduces lifecycle carbon dioxide emissions by 78%. The 700 million gallons of biodiesel produced in the U.S. last year represents over 11 billion pounds in carbon reduction, the equivalent of removing over 900,000 passenger vehicles from the nation's roadways. Biodiesel use also significantly reduces emissions of sulfur dioxide, carbon monoxide and particulate matter.

Job Creation in Rural America: Production at America's biodiesel plants in 2007 added over $4 billion to the U.S. economy, increased household income by over $960 million and supported over 21,000 jobs.

Biodiesel and Small Business

The President has declared this week National Small Business Week. He said "the entrepreneurial spirit lies at the core of our Nation's economy and identity. If Americans with good ideas can work hard, put their plan to the test, and succeed, the American economy will continue to create jobs and lead the world in innovation and productivity". The U.S. Biodiesel industry is doing just that. Our industry's ingenuity and hard work are critical to our Nation's

prosperity. Small businesses are the lifeblood of cities and towns across the country. Over the last decade, small businesses created 70 percent of all new jobs, and they are responsible for half of all jobs in the private sector. Our industry, with the help of this committee, can contribute and lead the way to prosperity, particularly in today's challenging economic environment. Biodiesel is reducing our dependence on foreign oil, we are helping in the fight on climate change, and we are creating new jobs in America. The nation that leads in 21st century clean energy is the nation that will lead the 21st century global economy. America can and must be that nation.

The production and use of biodiesel is consistent with an energy policy that values the displacement of petroleum diesel fuel with low carbon renewable fuel. As stated, there is also significant energy security, in addition to, environmental and economic public policy benefits associated with biodiesel use. The new Bioenergy Program for Advance Biofuels is a necessary program to continue the development of biodiesel nationwide. We encourage a program consistent with the following:

- A feedstock neutral program for all domestic biodiesel producers where all producers are treated the same and receive the same amount on each gallon of production.

- A program that is measured on the gallon of biodiesel rather than on feedstocks or some other methodology.

In conclusion, I encourage your committee to urge the USDA to move expeditiously to implement the Bioenergy Program and provide payments to US biodiesel producers in fiscal year 2009, retroactive to October1, 2008. Our single priority is to ensure that the Bioenergy Program payments are provided on all gallons of biodiesel produced. Our challenge is that this policy was passed last year and the biodiesel industry is still waiting for USDA to implement the program. The $300 million provided for the Bioenergy Program for Advanced Biofuels in the Farm Bill will help bring some stability to the industry so that biodiesel can continue to add to the nation's fuel supply.

Keystone Biofuels looks forward to working with you on the implementation of this program and if you have any questions for me concerning this issue or on biodiesel in general, please contact me at (717) 761-3511 or at by email at benwootton@comcast.net.

TESTIMONY OF GREG BAFALIS

PRESIDENT AND CEO, GREEN EARTH FUELS

BEFORE THE HOUSE SMALL BUSINESS COMMITTEE

MAY 21, 2009

Thank you Madam Chairman.

My name is Greg Bafalis, and I am President and CEO of Green Earth Fuels. Green Earth Fuels is based in Houston, Texas and is currently the largest independent producer of biodiesel in the United States. I am here today to ask for your assistance to save the biodiesel industry. We have worked very hard over the last three years to create a successful business. We started in January of 2006 and grew the company to 70 employees. Green Earth Fuels has done many things right: we have entered into competitive contracts for feedstocks, we have employed strict risk management policies, strived for and invested in feedstock diversification, located on the Houston Ship Channel to lower transportation expenses, positioned ourselves to seamlessly integrate into the existing petroleum market and always delivered high quality product to our customers. In addition we were very progressive and invested in new sustainable feedstock's to increase our supplies in a way that minimize any adverse impact on the food supply.

Despite taking these prudent steps in building our business, larger economic, market and political forces have combined to cripple us and the entire U.S. biodiesel industry. If a company like Green Earth Fuels is about to fail then I believe the rest of the independent small business biodiesel industry will also fail. To exacerbate a bad situation with such a fragile industry in a downturned economy the issuance by EPA of the draft Renewable Fuel Standard (RFS) rules, if implemented, will drive the last nail in the American biodiesel industry. Nationwide, 29,000 jobs and billions of dollars in investment will be lost and never recovered if the current situation is not remedied now.

While I want to focus the majority of my remarks on what I believe the Federal government must do to ensure that a U.S. biodiesel industry survives and thrives, I want to spend

a few moments providing an overview for the committee with respect to what has transpired over the past year to cripple the industry.

First, the economic downturn has had a dramatic impact on the industry. This is a young industry that relies on investment and ample working capital to establish itself. Like many emerging industries, our industry is feeling the effects of frozen capital markets.

Second, the market for biodiesel is shrinking. The U.S. biodiesel industry has had to rely on a robust European market while we attempt to build domestic demand and infrastructure. The European Union has recently enacted protectionist measures that all but close the market to U.S. producers. Without the implementation of the RFS-2 in 2009 a very small market will exist and further investment in the industry and required infrastructure is in peril.

Third, the Congress has yet to commit to long term support for the industry. As a young industry, biodiesel requires a $1.00 per gallon tax rebate to be competitive with petroleum diesel. That tax credit expires at the end of this year. Congress, as part of the stimulus bill that passed earlier this year, enacted long term extensions for the renewable electricity and other clean energy tax credits. They did not extend the biodiesel tax credit. Investors, lenders and customers want to know that this industry is here for the long term. These year to year extensions create even more uncertainty in uncertain times, and have the effect of driving away customers and capital investment.

Finally, the Environmental Protection Agency will have taken nearly two and a half years to issue proposed rules to the 2007 changes to the renewable fuel standard, and has done so now in a manner that eliminates the vast majority of feedstocks available in the United States by imposing speculative criteria for evaluating the greenhouse gas emission reductions of renewable fuels. This rule, once thought to be the savior of our industry because of the dedicated mandate for biodiesel, may now be our ruin because of EPA's recommendation that international indirect land use change impacts be incorporated into the carbon life cycle analysis of renewable fuels. EPA's initial modeling suggests that biodiesel produced from vegetable oils falls short of the 50 percent greenhouse gas reduction threshold established under the new law when one considers these indirect land use impacts.

The net effect of these events is the contraction of the U.S. biodiesel industry. The U.S. biodiesel industry produced 700 million gallons in 2008. It is now on schedule to produce less than half that amount in 2009 not through lack of production capacity but through delays in RFS implementation and investment incentives. Remember that these same producers and investors will consider the state of first generation biofuels before committing their resources to the next generation. Support trumps rhetoric. We need Congress to provide clarity, certainty and longevity to our industry.

In short, despite potential for our industry, and some of the positive steps Congress and the President have taken to promote the industry, the world economic crisis and an uncertain regulatory climate are threatening our industry and the future of renewable fuels! If biodiesel fails it will cost the investment community billions of dollars and send a clear signal to these investors that government support for alternative fuels is suspect and "not bankable." If you, as an investor, just lost billions on biodiesel, would you ask your Board of Directors for billions more for second generation biofuels? And there is another factor to consider, the intellectual talent. If the industry fails, in part due to a changing or variable regulatory climate, the people with the expertise most needed to lead the development of next generation fuels will likely leave the industry, never to return. First generation Biodiesel may not be the perfect solution to our nations environmental and energy challenges, but it is a valuable start. The knowledge we are gaining by operating and developing improvements shows tremendous potential for it to become better, and its success paints a picture for the next generation of entrepreneurs. In addition, if the lack of investment today means the loss of biodiesel infrastructure now then today's infrastructure will not be there to support other emerging alternative fuels tomorrow.

So, what does our industry need from the Federal Government to succeed? We don't need a bailout but we do need help. Congress and this Administration can help this industry stay on its feet and help meet our future energy and climate challenges by doing the following:

- We need a market for our product now. The major oil companies in the energy industry will not make the infrastructure investment to certify, use and transport biodiesel nor will they buy it without the surety that the product will be available in quantity and quality and that the rules have clarity and certainty. The assistance we are asking for is the first

in justifying investment by major energy companies. The draft EPA regulations on the RFS push the original biodiesel mandate back from 2009, as originally required by Congress, to 2010. This delay is devastating to the industry. Any further delay in establishing a U.S. mandated market for biodiesel will kill the industry. Production is already down an estimated 300 million gallons for 2009 and that may be an overly optimistic projection. We have clearly been told by the major oil companies that they will not buy biodiesel until they know what the rules are in the RFS. Therefore, the EPA must enact final rules to the RFS without any delay so that the biodiesel mandate is in full effect for all of 2010.

- This industry also needs the certainty and stability in federal policies. Congress recognized the importance of providing long term certainty to the renewable electricity industry when it enacted long term tax credit extensions as part of the economic stimulus legislation earlier this year. The biodiesel industry relies on a $1.00 per gallon production tax credit which expires at the end of this year. The industry needs a long term extension of this credit in order to restore investor confidence and provide the industry with stability. Congress needs to act immediately to extend this credit and should do so for a period of five years.
- The Administration can further grow the market by issuing an executive order directing all Federal agencies to buy domestically produced biodiesel offered within an established price range that allows producers to cover their costs and stay in operation. This could of course include Federal funded activities under the stimulus package for construction and other activities.
- Require the U.S. Department of Agriculture to invest in research and development in energy feedstock diversification for biodiesel. Green Earth Fuels currently uses feedstocks like soybeans, animal grease and palm oil to produce fuel, but we believe the future lies in environmentally sustainable, high value energy crops like camelina. and jatropha We have formed a joint venture, Sustainable Oils, to ramp up commercial camelina production in the Northern Plains States, including Montana, North Dakota and Minnesota. We are expanding this development to arid marginal areas like the Southwest (New Mexico), and beyond. We have rehabilitated an idle coffee plantation in Guatemala and are growing jatropha. The Department of Agriculture needs to get programs like

the Biomass Crop Assistance Program up and running to help build out these sorts of efforts.

- We need the Transportation Department and FERC to issue regulations allowing biodiesel into the pipeline system of this country. This will greatly reduce distribution costs and make it easier for biodiesel to integrate into the petroleum infrastructure. We know it can be done since it is already happening in Europe.
- Finally, we need the RFS to accurately evaluate the greenhouse gas emission profiles of renewable fuels. While we understand the importance, we believe that the current calculation of the impact that the biofuels industry will have on indirect land use change is speculative at best. Adding a further measure of "International" indirect land use change singles out this industry and penalizes US companies for bad land use practices of other countries. You simply cannot conclude that the sustainable cultivation of soybeans or camelina in the United States will result in widespread forest conversion in the Amazon Basin. I lived in Brazil for 7 years and forest conversion was well underway before the US biodiesel industry was created. We urge this Committee to closely follow the EPA rulemaking on the RFS and exercise its oversight to ensure that a final rule is not issued that uses dubious science and controversial modeling to unfairly penalize vegetable oil derived biodiesel.

In closing, thank you for allowing me to make my case for the biodiesel industry. I am aware that this Committee has for a number of years been supportive of the biodiesel industry and done much to advance our cause and that you are already aware of many of these issues. In fact this is the only committee of Congress that has held independent hearings on just the biodiesel industry. The men and women who are building Green Earth Fuels – and our entire independent domestic biofuels industry - do so because we believe biodiesel offers an environmentally sustainable solution to our nation's energy challenge. Given the policy tools recommended in my testimony I believe that we will be able to weather these economically challenging times and emerge a stronger industry that is here to stay.

TESTIMONY OF THE
AMERICAN SOYBEAN ASSOCIATION

To the

HOUSE SMALL BUSINESS SUBCOMMITTEE ON
REGULATIONS, HEALTHCARE, and TRADE

On

The Impacts of Outstanding Regulatory Policy
on Small Biofuels Producers and Family Farmers

May 21, 2009

Chairwoman Dahlkemper, Ranking Member Westmoreland and members of the Subcommittee: My name is Ray Gaesser. I am a soybean farmer from Corning, Iowa, a Member of the Board of Directors and the Executive Committee of the American Soybean Association (ASA). On behalf of ASA I want to thank the Subcommittee for holding this hearing to examine the impacts of outstanding regulatory policy on small biofuels producers and family farmers.

At the top of our list of regulatory policy concerns is the EPA's Notice of Proposed Rulemaking for implementation of the expanded Renewable Fuel Standard (RFS-2). This Proposed Rule was released on May 5th and while ASA is still reviewing the lengthy and complex proposal, there are several very obvious and immediate flaws and concerns.

The proposed rule as released contains unprecedented, untested, and far-reaching indirect land use assumptions and projections which will adversely impact markets for U.S. farmers and impede our national efforts to reduce dependence on foreign oil and thus impede efforts to improve our environmental footprint. We are concerned that EPA has attributed an undue degree of land use causation to U.S. biofuels production and that EPA's assumptions do not adequately consider the other market factors (population growth, food and feed demand, timber prices, etc.) that have historically driven international land use decisions.

In addition to our concerns with the RFS-2, ASA is seeking implementation by USDA of the Bioenergy Program for Advanced Biofuels, which was funded in the 2008 Farm Bill. The Bioenergy Program, if implemented properly, could provide much needed assistance to U.S. biodiesel producers.

Before I discuss the issues of the RFS-2 and the Bioenergy Program in greater detail, I'd like to first provide some background so you understand why these programs and issues are important to ASA.

Importance of Biodiesel

ASA has a great interest in the development and implementation of the RFS-2, especially for biodiesel. Soy biodiesel is one of the cleanest burning biofuels currently used in commercial markets. Biodiesel is a renewable and sustainable energy source that can play a significant role in our national efforts to increase our energy security and improve our environmental footprint. Biodiesel has also provided a significant market opportunity for U.S. soybean farmers, and jobs and economic development for rural communities. These facts make it difficult to understand why soy biodiesel would be excluded from the RFS-2.

Biodiesel production in the United States has predominantly utilized soybean oil as a feedstock. While other feedstocks are becoming more viable, soybean oil remains the primary feedstock of choice for U.S. biodiesel production. As a result, biodiesel has provided a significant market opportunity for U.S. soybean producers by increasing demand for soyoil. Soybeans are produced primarily for the soy meal that is used in the feed and food market. Historically, there have been surplus stocks of soyoil that have resulted in depressed prices for soybeans and restricted markets for soybean farmers.

The biodiesel industry is creating valuable green jobs and making a positive contribution to the economy. In 2008 alone, the U.S. biodiesel industry supported over 51,000 jobs, added over $4 billion to the nation's Gross Domestic Product (GDP) and generated over $866 million in tax revenue for federal, state and local governments.

Despite the many benefits it provides, the U.S. biodiesel industry is facing severe economic hardship today. The difficulty accessing operating capital as a result of the current credit crisis, the volatility in commodity markets, reduced demand, and inability to compete in the European marketplace are making it difficult for producers to sell their fuel. In addition, uncertainty over federal policy, such as the extension of the biodiesel tax credit, implementation of the RFS-2, and implementation of the USDA Bioenergy Program is undermining investor confidence in the industry.

The National Biodiesel Board (NBB) estimates that absent any change in federal policy, U.S. biodiesel production will likely fall to 300 million gallons in 2009, which would cost the U.S. economy more than 29,000 jobs. If prolonged, this downturn will lead to a severe retraction in U.S. biodiesel production capacity.

Renewable Fuel Standard (RFS-2)

ASA believes that an expanded RFS-2 that includes a specific minimum use requirement for biomass-based diesel is a necessary and beneficial program. A workable RFS-2 is necessary to move the country toward our goals of energy independence and clean, renewable energy production. As the current market demonstrates, the production and use of biofuels is not economically viable when petroleum prices are low. Combined with the extension of the biodiesel tax credit, and the implementation of the Bioenergy Program, the RFS-2 could provide some much-needed market certainty for U.S. biodiesel production.

Under the Energy Independence & Security Act (EISA) of 2007, to be eligible for the new RFS-2, biodiesel must meet a 50% greenhouse gas (GHG) reduction relative to petroleum diesel. When calculating the life cycle GHG impact of biofuels, the statute directs EPA to consider direct and indirect emissions, including indirect land use, of all stages of the fuel and feedstock production. As a point of reference, under the existing GREET model used by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy, biodiesel achieves a 78% GHG reduction relative to petroleum diesel. The primary area of concern and

disagreement has emerged over the international indirect land use assumptions that EPA has proposed to use in conducting their updated life-cycle GHG analysis.

Indirect Land Use

Indirect Land Use Change (ILUC) refers to the GHG emissions caused by land converted to crop production globally. While we have not had time to fully assess the EPA Proposed Rule on RFS-2 implementation, our initial review suggests that it is significantly flawed, and it does unnecessary harm to the competitive position of the U.S. soy biodiesel industry. EPA has included, in the proposed rule, numbers on the life-cycle greenhouse gas emissions of soy oil biodiesel that are derived from faulty assumptions, flawed analysis, and misplaced penalties.

Flaws in EPA Assumptions

We see numerous potential flaws in the approach EPA is using for indirect land use changes in its proposed rule. Further, there are numerous factors that we believe refute the possibility that significant international indirect land use change would result from the relatively small increase in U.S. biodiesel production called for under the RFS-2:

1. **The method used by EPA to measure indirect land use is new and untested.** There is neither consensus in the scientific community or a widely accepted methodology that could be deemed credible to accurately calculate the impact of U.S. biofuels production on international land use decisions.

2. **U.S. soy biodiesel production does not drive land use change.** Land use change has been going on around the world for many years, long before biodiesel was produced in the U.S. The EPA analysis uses previous land conversion and extrapolates that into the future. It is our understanding that the soy biodiesel land use factors were focused largely on deforestation and land use change in Brazil. If that is the basis, it is unclear how EPA justifies attributing future land conversion to soy biodiesel. As an example, if Brazilian land use change is a key factor, then past and recent trends in Brazilian soy planted area should be a telling data point. In fact, Brazilian soy area increased most significantly in years prior to the existence of U.S. biodiesel production (1998-2004). In the period from 2004-2008, when U.S. biodiesel production has increased from 25 million gallons to 700 million gallons, Brazilian soy area has actually *decreased.*

3. **Other market factors (urbanization, world population growth and dietary changes, timber and hardwood prices, etc.) impact and drive land use change decisions and determine to what use farmers will put their land.**
   In a recent interview Paulo Adario, director of Greenpeace's Amazon deforestation campaign said, "Biodiesel demand for soy oil is not seen as a significant driver of Amazon deforestation. Most of the soya grown in Brazil, including what is grown on illegal plantations, is for animal and human consumption; and right now, the Brazilian government is investing in other feedstocks for the development of its biofuels program."[1] Clearly soy biodiesel is not driving land use change and any land use change that is occurring certainly cannot be solely attributed to U.S. biofuels.

4. **Yield increases by U.S. soybean farmers will play a significant role in meeting biofuel feedstock demand by producing more soybeans on the same amount of land.**

[1] Nicholas Zeman, "Greenpeace: Biodiesel Not Seen as Significant Driver in Amazon Deforestation" *Biodiesel Magazine,* May 4, 2009.

Historical data tell us that productivity gains and yield increases occur for U.S. agriculture. Over the 25 year period from 1981-2006, U.S. soybean farmers increased their yield from 30 bushels per acre to 43 bushels per acre. This equates to an average yield increase of one-half bushel per acre per year. This represents the minimum productivity increase that is likely to occur. With technologies currently in development, the yield increases going forward are expected to surpass those we have achieved over the past 25 years. U.S. seed technology companies are projecting that current soybean yields will double by 2030.

5. **Other measures are being implemented to address land use change for certain sensitive areas, such as the Amazon region in Brazil.** An example is the Soy Moratorium, a pact signed by multinational soybean trading companies, Non-Governmental Organizations (such as Greenpeace and The Nature Conservancy), and the Brazilian Ministry of Environment which restricts the marketing or purchasing of soybeans from any newly deforested areas in the Amazon. The trading companies that signed onto the moratorium account for 95% of the soybeans marketed from the primary soybean growing region of Brazil.

6. **The indirect emissions of diesel (the baseline against which biodiesel is being measured) are not adequately factored into the baseline.** It does not appear that indirect impacts of petroleum production are factored, creating an unfair comparison for biofuels.

7. **The statute does not require EPA to include *international* indirect emissions in their life-cycle analysis for biofuels.** There appears to be a far greater degree of confidence among the scientific community in the ability to measure ILUC that may or may not occur in the United States as a result of biofuel demand. Extending the ILUC analysis globally creates far more uncertainty. Since the EISA statute only requires that EPA measure, *"...the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator,"* we do not believe that an EPA life-cycle analysis that attempts to measure *international* ILUC would be necessary or appropriate at this time. **EPA could easily meet their statutory requirement to measure indirect emissions without the uncertain and untested international land use change assumptions that they have chosen to include.**

Intent of Congress

We do not believe that it was the intent of Congress for soy biodiesel to be excluded from the RFS-2. If soy biodiesel is excluded, the biomass-based diesel schedule under RFS-2 cannot be achieved. There are simply not enough of other biodiesel feedstocks to produce the amount of biodiesel called for in the RFS-2. This is a clear indication that Congress did not intend to exclude soy biodiesel from the RFS-2. Furthermore, the GHG thresholds were established at different levels for different fuels and existing ethanol plants were exempted from the GHG threshold altogether. The 50% GHG level that biodiesel must meet to qualify for the RFS-2 is an arbitrary threshold.

Feedstock Certification

We are also very concerned with the potential under the EPA Proposed Rule to require renewable fuel manufactures to prove that their feedstocks meet the definition of renewable

biomass. The Energy Independence and Security Act included a prescriptive definition of renewable biomass and the EPA Proposed Rule would limit eligibility to biofuels produced only from feedstocks grown on existing cropland. This requirement could result in the need to provide feedstock certification. Such feedstock certification would be onerous and unworkable.

Soybean processors likely do not know precisely where their soybeans come from unless they are direct delivered by the farmers. Most processing plants buy soybeans from local elevators as well as direct from farmers. The local elevator does not know who delivered what soybeans once they go into storage. In the case of some processors, they buy all of their soybeans from local cooperatives with very little direct delivery. Under the EPA Proposed Rule, they would need to get certifications from the hundreds of thousands of producers who deliver soybeans to a cooperative, who in turn deliver soybeans to the processor.

EPA does not provide a clear method to implement this feedstock certification, and they must recognize the challenge it would present. This is a great concern for farmers and our industry partners and will be the subject of significant attention as we develop formal comments and response to the EPA Proposed Rule.

Bioenergy Program for Advanced Biofuels

The Energy Title of the 2008 Farm Bill included the Section 9005 Bioenergy Program for Advanced Biofuels. The purpose of the program is to provide payments to eligible producers to support and ensure an expanding production of advanced biofuels. The U.S. biodiesel industry was a primary supporter of this program in the Farm Bill. USDA has not issued proposed rules or a notice of funding availability for the program as of yet.

The Bioenergy Program could provide much needed assistance to U.S. biodiesel producers during this time of economic distress. The National Biodiesel Board and the American Soybean Association submitted comments to USDA on the development of the program rules and regulations. Our primary requests are to have the program implemented in a timely manner and provide payment on all gallons of eligible biodiesel produced.

We urge USDA to move expeditiously on the Section 9005 Bioenergy Program for Advanced Biofuels and ensure that the FY09 funding is distributed as soon as possible and that the funding be provided retroactive to October 1, 2008, the beginning of the fiscal year. USDA should administer the funding in accordance with congressional intent, which would provide support for existing advanced biofuel production, such as all gallons of eligible U.S. biodiesel, as well as encourage new production.

Conclusion

ASA has a great interest in the development and implementation of the RFS-2, especially for biodiesel. Soy biodiesel is one of the cleanest burning biofuels in commercial existence today. It is a renewable and sustainable energy source that can play a significant role in our national efforts to increase our energy security and improve our environmental footprint. Biodiesel has also provided a significant market opportunity for U.S. soybean farmers and jobs and economic development for rural communities.

The approach EPA is using for their proposed rule on RFS-2 implementation appears to be significantly flawed and would do unnecessary harm to the competitive position of the U.S. soy biodiesel industry. The Administration must work to improve the proposal and establish a

workable RFS-2. The USDA must also expedite implementation of the Bioenergy Program and do so in a manner that provides the most effective assistance to U.S. biodiesel producers.

Again, ASA thanks the subcommittee for holding this hearing to examine the impacts of outstanding regulatory policy on small biofuels producers and family farmers.

Small Business Committee
Subcommittee on Regulations, Healthcare, & Trade
United States House of Representatives

Hearing on
The Impacts of Outstanding Regulatory Policy on
Small Biofuels Producers and Family Farmers

Testimony of
Zippy Duvall
President, Georgia Farm Bureau Federation
May 21, 2009

Madame Chairwoman, Ranking Member Westmoreland, and members of the subcommittee, thank you for the opportunity to appear before you today to talk about the Renewable Fuel Standard (RFS) and how it could impact farmers in my home state of Georgia.

My name is Zippy Duvall, and I am the President of Georgia Farm Bureau. Our organization has more than 400,000 members in Georgia, and we are pleased to be affiliated with the American Farm Bureau Federation.

I am proud to be a farmer. I am a third generation dairyman from Greene County, Georgia. In 2005, I retired from the dairy business. My farm now consists of a 150 commercial beef brood cows, a broiler operation producing 480,000 chickens annually, and about 300 acres of forest land.

Renewable Fuels Standard

Regarding the Renewable Fuels Standard, the farm sector in Georgia strongly supports the increased use of domestic renewable fuels. We believe biofuels are key components to increase our nation's energy security.

Many of us remember the 1970's and the energy problems we experienced at that time. There were long lines at gas stations, and the price of gasoline was so high that retail gas pumps could not reflect the price of gas- consumers had to double the price indicated on the pump.

During those days, the American people vowed to become more energy independent. Unfortunately, we lost our resolve as soon as the price of gasoline began to fall. The result is that today, we find ourselves over that same barrel of oil that held us hostage nearly 40 years ago!

Recent events and 35 years of history ought to teach us that America needs to be more self reliant when it comes to our energy needs. The Renewable Fuels Standard is an important step in recognizing that biofuels like ethanol and biodiesel are clean burning transportation fuels that lessen our dependence on foreign oil and revitalize rural America.

America's farmers today are providing food, fiber, feed, and fuel for our country. We welcome that challenge, and we believe the American people will continue to be well served by our farmers.

Concerns with RFS proposals by EPA

While Georgia farmers look forward to serving the needs of our people, we have some concerns with the proposed regulations offered by EPA. The RFS passed in the Energy Independence & Security Act of 2007 requires new biofuels to emit from 20 to 60 percent fewer green house gas emissions than gasoline to be eligible for the RFS program. Our members have serious concerns about the terms "indirect land use change" and "lifecycle carbon emissions" and how these concepts would be measured and implemented.

We do not believe there is a reliable way to measure or accurately predict how the production of biofuels will affect land use here or in other countries. For our farmers, the market dictates which crops will be planted and where those crops will be grown. If there is sufficient demand for a crop, farmers will produce it. If the market persists, greater efficiency follows.

When my father was a boy, velvet beans were an important crop and 30 bushel corn was considered an average yield. Today, 30 bushel corn would be considered a crop failure, and most people have never seen a field of velvet beans.

Improved plant varieties, new technologies, and more efficient agricultural practices have produced greater crop yields of higher quality. My grandfather could have never imagined today's farm productivity. Likewise, it is unrealistic to think that anyone can predict how agriculture will evolve in the future based on the single variable of biofuels utilization. New and uncertain science to predict land use change has no place in federal regulations.

Renewable Biomass Definition

Georgia produces more forestry products than any other state, and 72% of forestland in our state is privately owned. We believe it is important that forest biomass be a source for renewable fuels.

The RFS in the Energy Independence & Security Act of 2007 did not include all forms of forest biomass, and we believe that is unfortunate. Under the standard, the only forest biomass considered renewable is that from "actively managed tree plantations." My own farm would not qualify under that definition.

The reason for such a narrow definition is unclear, but the result is that many family forest owners will be precluded from active participation. If the purpose of the standard is to increase the use of forest biomass, the definition should be as broad as possible to encourage its use.

Farm Bureau supports changing the definition of renewable biomass to include all forms of forest biomass. It is important that legislation should be as inclusive as possible regarding energy feedstocks and methods. The definition of renewable biomass outlined in H.R. 2454, the "American Clean Energy Security Act," would be a major improvement. It would also be beneficial by providing a consistent definition of renewable biomass.

Biodiesel Concerns

There are provisions in the Energy Independence & Security Act to grandfather existing corn ethanol plants from the green house gas reduction requirements if construction on the plant was begun before enactment of the bill. However, biodiesel was not offered the same treatment. To require new or existing biodiesel plants to meet the 50 percent reduction standard is unrealistic and unfair to biodiesel producers.

Conclusions

The State of Georgia uses about 5 billion gallons of gasoline annually. Of that amount, about 7 percent is ethanol. We continue to support traditional corn based ethanol. We encourage the federal government to revisit the existing limit on ethanol blending which is currently capped at 10 percent per gallon of gasoline. Moving to a 15 percent blend would encourage more ethanol utilization and replace more foreign oil with domestically produced renewable energy.

Many farmer members of our organization are part-owners of First United Ethanol, LLC, in Mitchell County, Georgia. That facility is now producing 100 million gallons of ethanol per year and adding to the local rural economy.

A cellulosic ethanol plant is under construction in Treutlen County, Georgia. These types of enterprises should be fostered and promoted. There are many challenges to overcome, but we must keep our eye on the final long-term goal of energy independence.

Georgia Farm Bureau supports legislation and policies to provide incentives for public and private industries to produce and market biodiesel, ethanol, and other domestic sources of renewable energy. We support the Renewable Fuels Standard in the Energy Independence & Security Act of 2007.

We believe the indirect land use proposals are unscientific, unproven, and ill advised. Such concepts hinder our efforts to become energy independent.

We support an expanded definition of forest biomass to be as inclusive as possible. Eventually, using more forest biomass will result in more energy which enhances our efforts to become energy independent.

New and existing biodiesel plants should be grandfathered into the program so that we may use their production. We need their product. It seems counterproductive to do otherwise.

We urge continued support for traditional corn based ethanol as well as next generation energy sources.

I thank the committee for its time and consideration.

STATEMENT BEFORE THE SUBCOMMITTEE ON REGULATIONS AND HEALTHCARE
U.S. HOUSE COMMITTEE ON SMALL BUSINESS

Hearing on the impacts of outstanding regulatory policy on
small biofuels producers and family farmers.
21 May 2009; 10:00 am.

K.C. Das
Associate Professor and Director,
Biorefinery and Carbon Cycling Program
Faculty of Engineering and
College of Agricultural and Environmental Sciences
The University of Georgia, Athens GA 30602

Thank you, Chairwoman Velazquez and members of the subcommittee, for this opportunity to participate in today's hearing.

Our team of researchers and outreach/extension scientists at the University of Georgia works on various aspects of converting biomass to fuels and products. The university also has a larger group of scientists examining the fundamentals of plant biochemistry, genetics, breeding, and conversion processes. That group is made up of scientists from many disciplines including engineering, agricultural sciences, forestry, microbiology, carbohydrate chemistry and biochemistry. They strive to understand plant cell wall biochemistry and develop biomass and processes for second- and third-generation biofuels. Their work includes both very basic studies, and applied studies at the bench-scale and pilot scales.

Members of our team work directly with industry on technology transfer and implementation – taking the work from our labs to the marketplace where it can be used to benefit everyone.

The Energy Independence and Security Act (EISA) of 2007 is forward thinking legislation that has set an ambitious target of attaining 36 billion gallons of biofuels in our transportation fuel mix by 2022. Recent scientific publications on full lifecycle analysis warn that land use change to produce biomass would actually result in higher greenhouse gas (GHG) emissions in biofuels compared to gasoline (e.g. Searchinger et al., 2008; Fargione et al., 2008). Although some may disagree with the conclusions because the exact assumptions and emission factors used in these studies have not been widely validated, these studies do show the weakness in expanding a crop-based fuels strategy without sufficient planning for sustainability.

The EISA of 2007 specifies GHG emission reductions for advanced biofuels benchmarked to GHG emissions from gasoline. This is a good strategy, but will very likely slow the growth of the biofuels industry and reduce opportunities for small biofuels producers and family

farms. If we continue to try to produce more biomass from the current spectrum of crop choices, GHG emission restrictions can disadvantage small producers and family farms.

Reduced GHG emissions require crops that are easier to grow, require lower inputs to grow (such as planting and harvesting costs, water, etc.), and are easier to process. In addition, the lowest GHG impacts come from using existing forestry and agriculture residues for biofuels.

Current corn ethanol production consumes roughly a quarter of the U.S. corn crop. Increasing ethanol production to the 15 billion-gallon-per-year target by 2022 will almost double the corn required. That increase will impact land and water needs, and create other environmental concerns. We need to improve the productivity of corn and other biofuels crops, and incorporate those improvements into the production process to reduce net inputs.

Producing lignocellulosic ethanol or other advanced biofuels (e.g. green diesel) is a challenge. Technology development in this field has advanced with support from the U.S. Department of Energy and private investments. However, most U.S. facilities are still in the early-demonstration phase and significant continued investment in research, development and deployment are required to achieve nationally set targets.

I believe these situations point to two focus areas that would satisfy the legislative intent of minimal environmental costs while creating opportunity for small business and farms: Using waste or residual biomass for biofuels production, and developing improved crops that provide high yields of biofuels with low inputs.

Significant waste biomass is generated in forestry and agriculture. According to the DOE and USDA's billion-ton vision report (Perlack et al., 2005), forestlands can produce 368 million dry tons of biomass annually – these include logging residues, fuelwood from forests, forest industry residues, and urban wood wastes. Both public and private forests can make important contributions to our biofuels strategy while improving the health of the forest, improving wildlife habitat and reducing occurrence of catastrophic wildfires that emit millions of tons of GHGs each year.

If renewable forest biomass is to compete in the biofuels industry, legislation must provide an inclusive definition of biomass with appropriate measures to maintain sustainability. Definitions significantly restricting most renewable forest biomass make this abundant resource off-limits to biofuels companies.

The University of Georgia's Warnell School of Forestry and Natural Resources has an active program to develop basic information related to costs and impacts of forest residue collection for biofuels (Baker et al., 2008; Greene and Das, 2006). Cost projections suggest that collecting residues and producing chips costs $11-12 per ton delivered to the mill without paying the landowner for stumpage. Chip properties do not significantly vary across treatments and residue chips have an average energy density of 19.1 MJ/kg_{dry}.

Based on the yield of chips and their nutrient content, maximum removal of nutrients were 23.5 lbs of N, 2.5 lbs of P, and 7.1 lbs of K from each acre. Lifecycle GHG assessment from use of forest waste to produce ethanol was reported to be 21.4 g-CO_2 eq/MJ, which is a 77 percent reduction compared to gasoline (CA-GREET, 2009). Increased use of these management practices can help create jobs in the forestry and biofuels sectors.

As we move forward to develop new and better biofuels, it is crucial that we have an available, diverse source of biomass feedstocks that don't compete with food supplies. Diversity allows different geographical regions to focus on crops best suited to local conditions. Current federal funding for research and development often targets a specific feedstock, hampering our ability to develop and transfer technology for novel crops.

In one recent study at the University of Georgia, researchers explored the use of a multi-benefit winter cover crop, oil seed radish, for its biofuels potential. Oil was extracted from the oil seed and converted into biodiesel while the crop served other agronomic functions. Additional income to the farm from the biodiesel production seems to show economic promise (Chammoun et al., 2009a; 2009b). Future regulatory policy could encourage similar crop development that may result in unexpected positive economic impacts on America's farms.

Many alternative crops are being explored at different degrees of depth and need continued study. Sorghum is one that has been studied at the University of Georgia over the last decade. UGA scientists led a global team in sequencing the sorghum genome (Paterson et al., 2009) and are now working toward understanding how we can use the genetic make up to our advantage in producing biofuels at lower costs in marginal soils.

Present work includes studying the large sorghum germplasm (over 360 lines) to understand specific physiological and biochemical features related to using sorghum biomass for second-generation biofuels. Specifically the enhanced ability to hydrolyze the biomass and produce a hydrolysate with minimal microbial toxicity will produce higher yields of ethanol at lower costs. Specific DNA markers generated from this study can be used as diagnostic tools to manipulate traits in accelerated breeding. Development of such drought resistant, robust crops with enhanced biofuels properties will help both farms and small biofuels producers in the future.

Specific target GHG reductions can also have the unintended consequence of eliminating certain technologies that have significant potential, but are lagging behind because of late starts (e.g. algae-biofuels). Current legislation and DOE policies also tend to narrow the field to selected biomass types or conversion processes. Anaerobic digestion, a fairly well-developed technology, is most often not considered because the energy output (methane gas) is not a liquid at room temperature. It is known that in a similar process, landfill bioreactors produce methane biogas which, when converted to compressed natural gas (CNG), has net GHG emissions less than 17 percent of that from an equivalent quantity of fossil-based CNG (CA-GREET, 2009).

Anaerobic digestion also can be farm based and can create jobs and produce net income to farms and small biofuels producers. University of Georgia researchers are developing a system that combines anaerobic digestion with algae production. The system can have multiple benefits such as using waste streams (including organic and nutrient rich agricultural and industrial byproducts), using CO_2 generated within the process or from external sources, and producing more than one type of biofuels (ethanol, biodiesel, and CNG) within an algae-biorefinery.

Current regulatory policies do not readily support developing such integrated solutions that are in the early stages of development. More rapid pilot-scale testing will help move these opportunities to the commercial sector quickly. The emphasis of federal agencies on large-scale demonstrations before detailed, pilot-scale research is completed, can impede development of such novel, integrated technologies.

Finally, recent interest in carbon sequestration is a welcomed change in national policy. It is clear that for continued economic growth and national security, we must transition to renewable forms of energy. However, our future challenge for greenhouse gas reduction will be removing CO_2 from the atmosphere. Current emphasis within the regulatory framework seems to favor carbon capture and storage through geological storage of compressed CO_2. Although potentially a reliable technique for carbon sequestration, this approach favors larger-scale sequestration and is likely very automated.

Creating jobs and increasing income to farms can only be achieved through simpler methods that are linked to agronomic processes. One example is using Biochar for soil carbon sequestration (UNCCD, 2008). Biochar is a byproduct of pyrolysis (a high temperature breakdown) of cellulosic materials, which produces a liquid hydrocarbon that could be converted to green diesel, other liquid fuels, and Biochar.

Biochar has high carbon content and is generally inert to biological degradation, so it could stay in the soil for many decades or longer. When implemented properly, this easily quantifiable Biochar soil carbon sequestration will increase the soil's carbon content, its agricultural productivity and sequester carbon for a long time. This could be an opportunity for small biofuels producers and family farmers to reap economic benefits while participating in carbon sequestration.

Although research is active in this area worldwide (including several projects at the University of Georgia), there is limited demonstration that will quantify benefits and identify obstacles early. The present regulatory framework does not appear to favor developing this technology.

There is great promise in the future of biofuels to augment our energy supply in this country. New ideas, technologies and discoveries are emerging from our universities and research centers almost every day.

Development and use of these discoveries could be accelerated by regulatory framework that supports deeper exploration into novel crops that don't pit the desire for fuel against

the need for food. We need policies that encourage developing processes and technologies that help create jobs and income for farms and small businesses. And, we need support that allows us to investigate diverse feedstocks and low-cost, efficient production methods that protect and enhance the environment.

Close examination of current legislation reveals that, while it is very forward thinking, there are hidden, unintentional limitations that can keep many promising biofuels just beyond our reach. If we are to reach our ambitious goal of 36 billion gallons of biofuels in our transportation fuel mix by 2022 while reducing greenhouse gas emissions, all avenues of exploration must be open and barriers to development removed.

REFERENCES

Baker, S.A., W.D. Greene, K.C. Das, and J. Peterson. 2008. Logging residues show promise for biofuel production. Forest Resources Association, Rockville MD 20852, Technical Release 08-R-6 [Reviewed].

CA-GREET. 2009. California Environmental Protection Agency Lifecycle Analyses. http://www.arb.ca.gov/fuels/lcfs/lcfs.htm [Accessed 18 May 2009]

Chammoun, N.A., D. Geller, G. Hawkins and K.C. Das. 2009. Fuel properties and performance testing of *Raphanus sativus* (Oilseed radish) biodiesel. Industrial Crops and Products. [Manuscript in preparation]

Chammoun, N.A. J. McKissick, W. Faircloth, D. Geller and K.C. Das. 2009. The economics for the potential of oilseed radish (*Raphanus sativus*) as a cover crop and biodiesel energy crop in Georgia. Transactions of ASABE. [Manuscript in preparation]

Fargione, J., J. Hill, D. Tilman, S. Polasky, and P. Hawthorne. 2008. Land clearnign and the biofuels carbon debt. Science, 319, 1235-1238.

Greene, W.D., and K.C. Das. 2006. Forest biomass potential for pyrolysis -Raw material issues and potential products. Paper presented at the 60th International Convention of the Forest Products Society of America. Newport Beach CA June 25-29.

Paterson, A., H., J.E. Bowers, R. Bruggmann, I. Dubchak, J. Grimwood, H. Gundlach, G. Haberer, U. Hellsten, T. Mitros, A. Poliakov, J. Schmutz, M. Spannagl, H. Tang, X. Wang, T. Wicker, A.K. Bharti, J. Chapman, F.A. Feltus, U. Gowik, E. Lyons, C. Maher, A. Narechania, B. Penning, L. Zhang, N.C. Carpita, M. Freeling, A.R. Gingle, C.T. Hash, B. Keller, P.E. Klein, S. Kresovich, M.C. McCann, R. Ming, D.G. Peterson, D. Ware, P. Westhoff, K.F.X. Mayer, J. Messing, and D.S. Rokhsar. 2009. The Sorghum bicolor genome and the diversification of grasses. Nature 457:551-556.

Perlack, R.D. et al. 2005. Biomass as feedstock for a bioenergy and bioproducts industry: The technical feasibility of a billion-ton annual supply. US DOE and USDA. US Department of Energy, Office of Scientific and Technical Information, Oak Ridge TN.

RFA Industry Statistics. 2009. Renewable Fuels Association, Washington DC 20001. http://www.ethanolrfa.org/industry/statistics/#D [Accessed 18 May 2009].

Searchinger, T., R. Heimlich, R. A. Houghton, F. Dong, A. Elobeid, J. Fabiosa, S. Tokgoz, D. Hayes, and T-H. Yu. 2008. Science, 319, 1238-1240.

UNCCD. 2008. Use of biochar (charcoal) to replenish soil carbon pools, restore soil fertility and sequester CO_2. United Nations Convention to Combat Desertification, Poznan, Poland Conference, Dec 1-10, 2008, http://www.biorefinery.uga.edu/news6.html [Accessed 19 May 2009].

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 19 2009

OFFICE OF
AIR AND RADIATION

The Honorable Nydia M. Velázquez
U.S. House of Representatives
Committee on Small Business
Washington, D.C. 20515-6315

Dear Chairwoman Velázquez:

Re: Addendum to the Hearing Record (May 21 hearing transcript)

I am writing to request that the following clarification be added to the record for the May 21, 2009, Committee on Small Business hearing.

About one acre of land is needed to produce 65 gallons of soy biodiesel. For corn ethanol, one acre can produce roughly 480 gallons of ethanol. This clarification refers to page 39, lines 900-902 of the testimony transcript.

Sincerely,

Margo Tsirigotis Oge
Director
Office of Transportation and Air Quality

○