

UNITED STATES DEPARTMENT OF AGRICULTURE

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EXPANDING RENEWABLE ENERGY AND ENERGY

EFFICIENCY OPPORTUNITIES IN RURAL AMERICA

+ + + + +

PUBLIC MEETING

+ + + + +

THURSDAY,  
SEPTEMBER 4, 2008

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The public meeting convened at

8:30 a.m. in the Jefferson Auditorium in the  
South Building of the USDA, 1400 Independence  
Avenue, SW, Washington, DC, Febe Ortiz,  
Moderator, presiding.

PRESENT:

CHUCK CONNER, Deputy Secretary of Agriculture

THOMAS DORR, Under Secretary for Rural  
Development

PANEL MEMBERS:

DOUGLAS FAULKNER, Deputy Under Secretary,  
Rural Development

FLOYD GAIBLER, Deputy Under Secretary,  
Farm and Foreign Services

JOSEPH GLAUBER, Chief Economist, Office of the  
Chief Economist

ROB HEDBERG, Special Advisor, Research,  
Education and Economics

GARY MAST, Deputy Under Secretary, Natural

Resources and Environment

PANEL MEMBERS: (CONT.)

JOHN MIZROCH, Principle Deputy Assistant Secretary, Office of Energy Efficiency and Renewable Energy, Department of Energy

KARL SIMON, Director of Compliance and Innovative Strategies Division, Office of Transportation and Air Quality, Environmental Protection Agency

PUBLIC COMMENTS:

GERI SIMON, Tyonek Native Corporation

RON BARMORE, Range Fuels, Inc.

ION MANEA, Flower Power USA and Heritage Farm Cooperative

BRET HEALY, Kansas Bioscience Authority

AL CHRISTOPHERSON, Minnesota Agricultural

Utilization Research Institute

RICK GRANT, Boise, Inc.

KYLE SIMPSON, Rentech, LLC

CHRIS ROACH, Abengoa Bioenergy

RYAN STROSCHER, Air Transportation Association

RICHARD ALTMAN, Commercial Aviation Alternative Fuels Initiative

BILL IMBERGAMO, American Forest & Paper Association

ROBERT KOZAK, Atlantic Biomass Conversions

DENNY DEVOS, POET

STEVE FLICK, Show Me Energy Cooperative

MICHAEL BROWER, Mosaic Federal Affairs, LLC

BRENDA ROBINSON, Environmental Solutions, Inc.

MANNING FERACI, National Biodiesel Board

ED HEGLAND, National Biodiesel Board

GARY HAER, REG

BOB HENRY, American Soybean Association

BILL HORAN, REG

JIM CONWAY, Griffen Industries

RACE MINER, Keystone Biofuels, Inc.

J.C. BELL, Bell Bioenergy

MARK ROKALA, National Sorghum Producers

CRAIG METZ, EnSave, Inc.

PUBLIC COMMENTS: (CONT.)

KAREN EDWARDS, Biobased Products Coalition

CHARLES KUBERT, Environmental Law and Policy  
Center

MARTHA NOBLE, Sustainable Agriculture  
Coalition

BOB GRAY, National Center for Appropriate  
Technology

ERNST CEBERT, Alabama A&M University

RITA NEZNEK, American Forest Foundation

BART RUTH, 25x25 Alliance

MAURICE HLADIK, Iogen Corporation

ANDREW BATER, Biomass Connections, LLC

JESSE CAPUTO, Environmental and Energy  
Study Institute

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1 P-R-O-C-E-E-D-I-N-G-S

2 (8:34 a.m.)

3 WELCOME AND PLEDGE OF ALLEGIANCE

4 MODERATOR ORTIZ: Would you please  
5 stand and join me in reciting the Pledge of  
6 Allegiance.

7 (Pledge of Allegiance.)

8 MODERATOR ORTIZ: Please be seated.

9 Welcome everyone to the public  
10 meeting hosted by Rural Development Under  
11 Secretary Thomas Dorr to discuss sections of  
12 the farm bill Title IX Energy.

13 My name is Febe Ortiz. I am with  
14 the Natural Resources Conservation Service,  
15 and I will your moderator for the day.

16 I want to remind everyone  
17 attending here to make sure to register at the  
18 tables out front. This is a public meeting,  
19 and it is being videoed and audiotaped and  
20 will be archived and available later for the  
21 public at the end of the day.

22 The video will be available via

1           USDA Farm Bill website. The public may listen  
2           in to the live audio by dialing 800-857-5233  
3           with a passcode of 7136861#. If you have any  
4           comments you will have up to 15 days following  
5           this meeting to make them to Robin Robinson.  
6           Her email is Robin Robinson at wdc.usda.gov.

7                         We'll now have a few introductions  
8           and some opening comments. Let me bring to  
9           the podium Rural Development Under Secretary  
10          Thomas Dorr. Please help me welcome Under  
11          Secretary Dorr.

12                         (Applause.)

13          INTRODUCTION OF DEPUTY SECRETARY CHUCK  
14          CONNER BY UNDER SECRETARY DORR

15                         MR. DORR: Thank you, all. Thank  
16          you all very much. Thank you all for coming.

17                         Before I do start I would like to  
18          make just a couple of introductions and  
19          acknowledgments. First of all putting a forum  
20          like this together and getting all the  
21          announcements out and addressing all the  
22          details requires a lot of effort, and I would



1           like to particularly thank Ben Anderson, our  
2           administrator for business coop services and  
3           his staff headed up by Bill Hagey. They have  
4           done yeoman's work in pulling this together.

5                        I'd also like to thank all my  
6           colleagues on the panel, particularly John  
7           Mizroch and Karl Simon who have graciously  
8           consented to spend some of their time here  
9           today listening to your comments and receiving  
10          your input on these issues as well as all of  
11          my colleagues from across the department.

12                      I am certain there are a number of  
13          our senior USDA staff members here who will be  
14          in and out all day. As you figure out who  
15          they are, my deputy under secretary Doug  
16          Faulkner is down here in the front. If you  
17          have any questions, any suggestions for that  
18          matter, or things that you would like to plug  
19          in perhaps a little quietly or behind the  
20          scenes, please don't hesitate to contact  
21          anyone.

22                      And finally thank you all, each

1 and everyone of you, for coming. This is a  
2 terrific pleasure for me to welcome all of you  
3 to USDA, and actually to introduce someone who  
4 I'm sure needs no introduction to some of you,  
5 someone who I've had the good fortune to work  
6 with for the last 3-1/2 years and get to know,  
7 Deputy Secretary of Agriculture Chuck Conner.

8 You will find no more passionate  
9 advocate for agriculture than Chuck. He spent  
10 most of his professional life in the service  
11 of agriculture, as a Senate staffer, at the  
12 White House, three years at the Corn Refiners  
13 Association, and now the last 3-1/2 years as  
14 a deputy undersecretary, and for awhile, the  
15 acting secretary.

16 In all of these efforts Chuck has  
17 excelled. Chuck is not simply an aggie; he is  
18 a forward looking 21st century aggie, and  
19 frankly someone who I believe recognizes that  
20 both agriculture and rural America have  
21 changed; that we have new markets and as a  
22 result new opportunities; and that these

1 actually include substantive involvement in  
2 renewable energy as well as bio-based  
3 products.

4 Throughout the process of writing  
5 the farm bill Chuck has been a tireless  
6 advocate for a robust Title IX. Now this of  
7 course was clearly an objective for the  
8 president going into the farm bill debate.

9 It's no secret that there were  
10 some aspects of this farm bill about which the  
11 administration was less than enthusiastic.  
12 That's over, and that's past, and I'm going to  
13 leave it at that.

14 But the energy title that we're  
15 here to discuss today largely reflects  
16 President Bush's vision and his commitment  
17 from the very outset of this process.

18 And I would like to take just a  
19 moment to reiterate that when this  
20 administration came to Washington, D.C. in  
21 2001, one of the very first policy statements  
22 it made was regarding our dependence on

1 imported oil, and our need to diversify into  
2 renewable and alternative resources.

3 So as a result that means that  
4 Title IX also reflects the tireless work done  
5 by Chuck and others when it got down to doing  
6 the heavy lifting. Chuck in fact is one of  
7 the architects of the enhanced and expanded  
8 Title IX that we are discussing today. And  
9 the bottom line is, I see no discernible  
10 difference between a pit bull and Chuck Conner  
11 - for those of you who saw the speech.

12 I know that Chuck shares your  
13 excitement about the potential that lies  
14 ahead, and we are delighted that his schedule  
15 permits him to join us today for a brief time.  
16 Please join me in welcoming Chuck Conner.

17 (Applause.)

18 OPENING REMARKS - DEPUTY SECRETARY CHUCK  
19 CONNER

20 DEPUTY SECRETARY CONNER: Tom, I  
21 think I'm going to thank you for that  
22 introduction.

1                   I do want to welcome all of you  
2 here for an early morning gathering. I know  
3 this is by Washington standards early morning.  
4 There is a Starbucks, ladies and gentlemen, in  
5 the basement, in case you don't know that,  
6 where I frequently visit.

7                   We've got a great gathering here  
8 today, and Tom has put together, and his folks  
9 have put together, a great program.

10                  It really is about giving us the  
11 chance now to take farm legislation and really  
12 put it on the ground. Congress as you guys  
13 know did give us a 700-page exhaustive what  
14 they called the Food Conservation and now  
15 Energy Act of 2008. And you know you've  
16 reached a milestone when you make it to the  
17 title of the farm bill.

18                  And we've done that - I'm probably  
19 going to continue to refer to it as the farm  
20 bill, but energy has established its place in  
21 this legislation.

22                  This legislation does contain a

1           wealth of new ideas, a wealth of new  
2           approaches to agriculture, conservation,  
3           nutrition issues, and of course now energy.

4                         But of course as well while  
5           Congress has mapped out the big picture for us  
6           they've left plenty of details, plenty of  
7           administrative details for us to sort through  
8           in order to put these programs on the ground  
9           at what we would call an operating level.

10                        And we all know it's the details  
11           of these government programs where things can  
12           oftentimes get knocked off the track and  
13           headed to the ditch. And it's oftentimes  
14           where the best policy intentions get run  
15           aground.

16                        And that's why, ladies and  
17           gentlemen, we have asked each and every one of  
18           you to come here today simply put to help us  
19           fill in the blanks that Congress has left for  
20           us, and to figure out the best way to apply  
21           this policy prescription out to the real  
22           world, to the operating level if you will.

1                   We want to make sure the rubber  
2                   meets the road here, and that all of the new  
3                   programs created under our new Title IX, the  
4                   energy chapter of the new farm bill, are  
5                   indeed implemented in the most cost effective  
6                   and in the most useful way possible.

7                   We are going to need your help to  
8                   do that. With your expertise, and with the  
9                   knowledge that is represented at gatherings  
10                  like this on renewable energy, we believe you  
11                  can help us spot those pitfalls, and perhaps  
12                  even avoid stepping on those pitfalls.

13                  The exciting thing, ladies and  
14                  gentlemen, about this new energy title is that  
15                  it does indeed break new ground. It maps out  
16                  a bold vision of the nation's energy future,  
17                  and it does provide a set of policy tools to  
18                  really help us turn that vision if you will to  
19                  a complete reality.

20                  It does commit more than \$1  
21                  billion of federal dollars to these programs,  
22                  the programs established under the bill over

1 the next five years. It is a big-thinking  
2 piece of legislation. And for the first time  
3 USDA will be able to help biorefineries adopt  
4 new production technologies, technologies that  
5 could be available on a commercial scale.

6 Under Section 9003 of the bill we  
7 will be able to provide loan guarantees of up  
8 to \$250 million to support the development and  
9 construction of commercial and demonstration  
10 scale of biorefineries that will put these  
11 very technologies into service.

12 With this authority we believe we  
13 can help the most promising technologies make  
14 the leap from research lab into the real  
15 world, and to make that leap much more  
16 quickly, and on a larger scale, than perhaps  
17 what otherwise might be possible at this stage  
18 in the process.

19 The biomass crop assistance  
20 program, what we call Section 9011, will  
21 create integrated models to help a successful  
22 biomass industry to run, and to run more



1           efficiently and effectively. It will pull the  
2           key pieces together by giving producers  
3           incentive to grow the native grasses and the  
4           fast-growing trees as feedstocks for a nearby  
5           conversion plant, and helping them recover the  
6           cost of harvesting, collecting and  
7           transporting those feedstocks for their  
8           biomass production process.

9                         Once these models are refined and  
10           in place and tested, we believe they can be  
11           followed and used all over the country.

12                        Title IX will also provide new  
13           support for producers of advanced biofuels,  
14           and we will help existing biorefineries to  
15           convert their own operations into operations  
16           that are running on renewable energies as  
17           well.

18                        As you know Congress and the  
19           administration did have our fair share of  
20           disagreements on the final shape of the farm  
21           bill, and Tom has noted this rightfully. But  
22           we have an ambitious agenda and a common

1 ground on Title IX that outlines from this  
2 broad agreement that we have.

3 The importance in this outline is  
4 to advance renewable fuels; advance our  
5 nation's renewable fuels capacity, and to do  
6 so absolutely as quickly as possible.

7 So we believe at USDA this is an  
8 exciting time. We are all on the ground floor  
9 of a shift - a shift in our national energy  
10 policy. And you don't have to watch the news  
11 very much, you don't have to watch the  
12 political debate very much, to know that we  
13 are indeed in a changing time.

14 And in the future, I do believe  
15 ladies and gentlemen that we will look back,  
16 look back at the policies laid out in the farm  
17 bill in Title IX, and realize that we had a  
18 profound affect on the future of this country.

19 I look forward to that. I am  
20 excited by that. I hope you are as well.

21 We always have to note that there  
22 is not single answer to our energy challenges

1           that we face, and we should not over-promise.  
2           Solving them as the president has noted will  
3           require reviving domestic exploration and  
4           production of oil; expanding our refining  
5           capacity; as well as developing other  
6           renewable energy sources, particularly energy  
7           sources like biofuels.

8                         But the serious debate on whether  
9           biofuels are an important and sustainable part  
10          of this solution, the serious debate, is  
11          really over from our standpoint. Biofuels  
12          have clearly earned their place in the  
13          nation's portfolio, and they I believe and you  
14          believe are here to stay.

15                        Achieving our goals will take  
16          smart science, targeted to government support,  
17          innovative business minds, and the application  
18          of plenty of energy and hard work throughout  
19          rural America to make these goals achievable.

20                        We are going to need all the tools  
21          of Title IX, all the tools that it gives us,  
22          to lay this foundation for a new industry, and

1 to nourish it, and to bring it about until we  
2 see the day when these biofuels, particularly  
3 biofuels from cellulosic ethanol, can make  
4 their way into the mainstream private sector  
5 market.

6 We look forward to those days.  
7 It's a long road ahead, but today we believe  
8 it's one of those first steps that we must  
9 take, and if we step in the right direction we  
10 will succeed.

11 So ladies and gentlemen, again,  
12 please give us your best thoughts, your best  
13 comments. We are here to listen; we are here  
14 to work together with you on this very very  
15 exciting endeavor going forward.

16 And again, thanks for  
17 participating once again in our joint efforts.

18 Thank you all.

19 (Applause.)

20 OPENING REMARKS - UNDER SECRETARY DORR

21 MR. DORR: Thank you, Chuck, thank  
22 you for the very helpful remarks to start this

1 hearing off with. And again to all of you  
2 welcome to USDA.

3 I would like to take just a  
4 moment, though, to personally thank Joe  
5 Glauber, Gary Mast, Floyd Gaibler, Karl Simon  
6 and John Mizroch, all who are taking  
7 substantive amounts of time out of their  
8 schedule today, to also indicate that all of  
9 us, myself included, have a number of other  
10 commitments. So we are going to be floating  
11 in and out of here today, and I do hope that  
12 it isn't too disruptive.

13 But it shows you in my view the  
14 commitment that we have both within the  
15 Department of Agriculture and across the  
16 government on an interagency basis to building  
17 out this new industry, taking it very  
18 seriously, and trying to ramp up these  
19 opportunities as quickly as possible.

20 Your commitment interestingly  
21 enough, and I want to acknowledge this at the  
22 outset, is also substantive, in that we have

1 a full roster of speakers today that we could  
2 legitimately get in. We have every time slot  
3 filled, and it is going to press us to get  
4 this all in in the appropriate time.

5 One other introduction I would  
6 like to make is that I am delighted that we  
7 have some members of the senior staff of the  
8 House ag committee and Senate ag committees  
9 with us today. I believe Anne Simmons and  
10 Adam Durand are here from the House ag  
11 committee. And Eldon Bowes who is on the  
12 Senate ag committee staff have joined us as  
13 well.

14 I think that these comments today  
15 will also be helpful and insightful to them as  
16 well.

17 You know after the deputy  
18 secretary's remarks, there's perhaps little to  
19 add. We are determined if I have anything to  
20 say about it to start on time at 9:00 o'clock.  
21 This is a day for you to talk and for us to  
22 listen, so I intend to be very brief.

1                   We are here today though because  
2                   renewable energy is an extraordinary  
3                   opportunity for the nation and especially for  
4                   rural America. And all of us collectively  
5                   involved recognize that potential.

6                   All of us I'm sure also understand  
7                   the long historical evolution that has brought  
8                   us here. For national security, for economic  
9                   security, and for environmental reasons, for  
10                  rural development reasons, the rapid  
11                  commercialization of renewable energy is a  
12                  high priority, and so ultimately is exploiting  
13                  the potential of bio-based products and the  
14                  carbohydrate economy.

15                  These things are now clearly  
16                  within our reach, and I would even be so bold  
17                  as to suggest that we are far beyond the basic  
18                  research stage in this effort.

19                  Now that said talking and doing  
20                  are two completely different things. There  
21                  have been many false starts before, and many  
22                  of you are warriors of the last 30 years in

1 many of those false starts.

2 Today I believe that we are in a  
3 much different situation. Technologies have  
4 literally matured. Global energy demand is  
5 surging; we know that. The comparative price  
6 regimes have shifted. And growing  
7 environmental concerns constrain our options  
8 pretty much across the board.

9 So for all of these reasons  
10 renewable energy is clearly of age.

11 The good news, though, is that the  
12 United States has made tremendous progress on  
13 renewables since the beginning of this decade,  
14 in fact due to most of your tireless efforts  
15 we lead in most renewable energy categories  
16 around the world and across the spectrum.

17 We are very much aware, that  
18 renewables are in fact building out from a  
19 very low base. Essentially what we have done  
20 is reach the lift off stage, and the test of  
21 our success will ultimately be our ability to  
22 sustain and accelerate the buildout over



1           decades, and not just months or years, or to  
2           the next farm bill.

3                       The potential is very clear. And  
4           our intent I hope is quite clear. But the  
5           devil, as is always the case, is in the  
6           details. In the notice for this meeting, for  
7           example, we listed 59 specific questions  
8           related to those issues in Title IX that we  
9           hope to implement.

10                      Several of those had subparts, and  
11           I'm sure that some of you will raise  
12           additional questions and concerns that have  
13           clearly not yet occurred to us.

14                      This meeting is being held in fact  
15           to solicit your advice and your counsel, and  
16           we look forward to your presentations.

17                      Now many of you have been down  
18           this road before. I know that; we all have.  
19           But nevertheless let me say from a USDA  
20           standpoint it is refreshing that we are in  
21           fact at a time that is not beginning from  
22           scratch. Much work has already been done by

1 many of you involved in this effort.

2 In 2002, just six years ago,  
3 Congress gave us for the very first time an  
4 energy title in the farm bill, and we have  
5 come a very long way in that short period of  
6 time. In 2002 and 2003 we had a very  
7 challenging job of literally standing up a  
8 series of new programs essentially from  
9 scratch.

10 Now I know that Bill Hagey is  
11 here. I don't know if Pandor Hadjy or George  
12 Schultz or Joseph Ben Israel or David Grahn  
13 are with us today, but let me acknowledge the  
14 substantive path-breaking work that they have  
15 done over just the last six years.

16 Let me also acknowledge that we  
17 now have a team just in rural development  
18 alone of in excess I believe of two dozen  
19 people focused entirely on a plethora of  
20 renewable energy strategies.

21 So we are moving on to the next  
22 stage. We have assembled another

1 implementation team for the 2008 farm bill  
2 from across USDA, and we are of course  
3 collaborating closely with our partners in the  
4 Department of Energy as well as EPA.

5 The key people here though today  
6 are really you. Our mission is to support  
7 you, you in the private sector, so that you  
8 can succeed. And if renewable energy is to  
9 achieve its potential, in the final analysis  
10 it is going to be singularly because of the  
11 work and the successes that you experience in  
12 the private sector, and frankly because of  
13 some of the failures that you experience that  
14 also reflect on things that we need to know.

15 And I want to make that point, and  
16 I want to make it very clear. You know we  
17 reflect a lot of this in the biotech world in  
18 the context of the technology environment that  
19 occurred in Silicon Valley over the last 30  
20 years. Remember one thing: we at agriculture  
21 don't tend to celebrate success very well. In  
22 fact if we lose a farm we hide our tails and

1 we walk away in shame.

2 Clearly Silicon Valley learned how  
3 to celebrate success, and they also learned  
4 how to celebrate failure, because they knew it  
5 was the next point to the next success story.  
6 And I think it's important that we remember  
7 that as we go down this road.

8 So we are eventually going to  
9 publish a proposed regulation in a number of  
10 these program title areas, all of which you  
11 will have an additional opportunity to respond  
12 to after we have received the written comments  
13 at the end of the 15-day period following this  
14 hearing today.

15 We are grateful for your  
16 participation. And so with no further ado,  
17 let me turn the balance of the day over to  
18 you. I encourage you to challenge us with  
19 everything you have in your quiver, and  
20 hopefully we will all go away today much more  
21 informed as to the challenges that we have to  
22 deal with to make these various titles



1           came in this morning there is an exhibit out  
2           on the left. There are a lot of fact sheets  
3           for you to pick up there as well as some USDA  
4           experts to answer any questions you might  
5           have.

6                           A few groundrules for the  
7           presenters today. Each of you will be called  
8           up to the podium and will have up to 10  
9           minutes to present. I will announce who will  
10          follow each presenter, and you will be timed.  
11          Your times will be monitored by Tyler O'Bourne  
12          down there. If you see him, he's waving  
13          there. He will give you a sign when you are  
14          at five minutes, and then again when you are  
15          at one.

16                           I ask that you be mindful of the  
17          time.

18                           The agenda will be as follows.  
19          Section 9003, 9007 will be discussed prior to  
20          noon. And then we will have lunch from 12:00  
21          to 1:00. Lunch is on your own; the cafeteria  
22          is down the hall to the right.

1                   After lunch Sections 9009, 9013  
2                   are open for comment. And then we will be  
3                   heading for closing remarks somewhere around  
4                   4:00 o'clock.

5                   If you need to take a break please  
6                   do so quietly. As you exit the auditorium the  
7                   men's restroom is out to your left at wing  
8                   five, and the ladies of course will be down  
9                   here in wing four.

10                  All right, we will begin. First  
11                  speaker today is Ms. Geri Simon, and then  
12                  following that will be Ron Barmore.

13                  Would you please come up, Ms.  
14                  Simon?

15                  GERI SIMON, TYONEK NATIVE CO.

16                  MS. SIMON: Thank you. Good  
17                  morning. As someone said, if you need more  
18                  coffee there is a Starbucks down the hall, in  
19                  the basement.

20                  I am Geri Simon. I represent the  
21                  Tyonek Native Corporation in Anchorage,  
22                  Alaska.

1                   Before I go on I'd like to  
2           introduce our board president, Danida Slawson,  
3           is here in the audience with me.

4                   Thank you.

5                   We appreciate this opportunity to  
6           talk about some of the projects in and around  
7           Tyonek. And after this last week most  
8           everybody is becoming familiar with Alaska I  
9           think from Governor Palin.

10                   I'm trying to figure out how to  
11           work this. There you go.

12                   There is the state of Alaska. And  
13           the red star there is where Anchorage is.

14                   (Pause.)

15                   All right, there is Anchorage.  
16           Right next to it is Tyonek across the water.  
17           This little machine is giving trouble.

18                   There is the Cook Inlet. Again,  
19           Anchorage is about half an hour plane ride  
20           from Anchorage - or Tyonek is. There are no  
21           roads to there. And the next year we may be  
22           getting a fast ferry.



1                   Tyonek Native Corporation has  
2           about 200,000 acres of land in the West Cook  
3           Inlet. It is the former Dena'ina reservation.  
4           It is the only Athabascan whaling community in  
5           Alaska. TNC was formed under the Alaskan  
6           Native Claims Settlement Act, of 1971, and  
7           through that act we own as I mentioned  
8           approximately 200,000 acres of surface land.  
9           The subsurface is owned by a regional  
10          corporation, Cook Inlet Region, Inc.

11                   Tyonek itself is a gated community  
12          in the sense that you will find gated  
13          communities in Chicago and California and  
14          other places. The village itself was built up  
15          with private funds, the airstrip there is  
16          private, and the community members continue to  
17          want to keep that community private.

18                   It is an offroad system as I  
19          mentioned. There are no roads there. The  
20          plane round trip air ticket to go into town to  
21          go shopping or make your doctor's  
22          appointments, it's about \$180 roundtrip.

1                   In the area itself there have been  
2                   gas fields that have been developed over the  
3                   last 40 - 50 years supplying the urban area of  
4                   Anchorage. And as this next slide will show  
5                   you, there are a number of developments in and  
6                   around Tyonek.

7                   The village itself is right on the  
8                   water there, the native village of Tyonek.  
9                   The red outlines the land, the 45,000 acres  
10                  that is the former reservation. There is an  
11                  industrial site and a port site, which if we  
12                  had another 800 feet, would be cape class  
13                  available.

14                  Up in the far right hand, you will  
15                  see the town of Nakacheba. This is land that  
16                  Tyonek Native Corporation is obligated to give  
17                  to the community for future expansion, and the  
18                  village of Nakacheba is placed in that  
19                  specific spot because it is quite far from the  
20                  core of the community where it will still  
21                  remain a gated community.

22                  As you will see outlined in the

1 top left the Chuitna coal mine. That's about  
2 12 miles. Also from this map you will be able  
3 to see that the native village of Tyonek is  
4 about 12 miles from the Beluga power plant.  
5 And that's the plant that provides about 375  
6 megawatts to the rail belt.

7 The green area that you see there,  
8 that's the Chuitna River, and that is one of  
9 the areas that the Tyonek Native Corporation  
10 is seeking a conservation easement to protect.

11 The projects in and around Tyonek  
12 Native Corporation include the Chuitna coal  
13 mine, which will be about a \$600 million  
14 investment. There is a coal to liquid power  
15 generation plant being discussed. The  
16 Chakachamna hydropower, and the Mt. Sputt  
17 geothermal power. All of those are within  
18 about 45 miles of Tyonek and its ports.

19 The Chuitna coal mine is planned  
20 to be the second largest coal strip mine in  
21 the U.S. Infrastructure permit application has  
22 been submitted. Tyonek Native Corporation has

1           been negotiated with the Pac Rim Coal, and  
2           along with the native village of Tyonek, to  
3           seek contracting opportunities during this  
4           project.

5                       There are potential easements  
6           planned across TNC land. They are planning  
7           for an 180-man camp at the mine, a 10,000 foot  
8           conveyor across TNC land to the ship-loading  
9           dock. And this conveyor is much like the ski  
10          resort ski lifts that you see. The people  
11          that are producing the technology are the ones  
12          who have completed the Aleyska resort ski  
13          lift.

14                      The planned mine life is 25 years,  
15          and as I mentioned, \$600 million capital  
16          investment. The coal to liquids is another  
17          project. Again the coal mines are about 12  
18          miles from Tyonek's dock. The TNC board of  
19          directors has set aside a 1,000 acre port  
20          site, industrial site. There already is the  
21          existing port, and as I mentioned, with 800  
22          feet we will be able to take cape class sized

1 vessels.

2 The Fischer-Trope fuel system is  
3 being planned for 80,000 barrels a day, with  
4 400 megawatts of waste heat power generation  
5 which can either be pumped straight into the  
6 grid or used for other development projects  
7 within Alaska.

8 The unique situation for Tyonek is  
9 that because of the 40 or 50 years of gas  
10 development we can sequester the CO2 right  
11 there. I know that there has been quite a bit  
12 of push over the years to have that CO2 not be  
13 a major part of any development project. But  
14 again because of the gas development in the  
15 area, we are able to use that as - to pump up  
16 more gas from the reservoirs.

17 This is a \$12 billion project,  
18 5,000 construction workers planned for five  
19 years, and 500 operations staff. And this  
20 will need a base camp or a community for the  
21 life of the project.

22 Again as you will see right there,

1           that is where it says the FT plant at the  
2           Tidewater, that is the Fischer-Trope system  
3           can be built as with other Fischer-Trope  
4           systems in another country; pulled right up to  
5           the Tyonek industry site; and propped right up  
6           to begin working. And again 12 miles from the  
7           Beluga power plant.

8                         The next project is the  
9           Chakachamna hydropower. It's planned for 300  
10          megawatts of power to the rail belt with a 5-  
11          cent per kilowatt hour estimated. The three  
12          to five years of studying and permitting; five  
13          years of construction completed in 2018; it's  
14          a \$2 billion project. That's 40 miles from  
15          Tyonek.

16                        The folks that we have been  
17          talking to have promised to use Tyonek and the  
18          native village of Tyonek whenever possible.

19                        Approximately 2,000 construction  
20          workers and 20-plus operational staff.

21                        The next project is the Mt. Spurr  
22          geothermal project. The bid opening is

1           September 10th, which is next week. There are  
2           two experienced bidders expected. The  
3           geothermal exploration will begin in 2009,  
4           with 150 megawatts for the rail belt grid.  
5           Four hundred megawatts is being planned with  
6           one of the bidders for aluminum production.  
7           It will be five to eight years for project  
8           completion; a \$3 billion project with an  
9           estimated 2 cents per kilowatt hour; again,  
10          3,000 construction workers, and 300  
11          operational staff.

12                     All right, thank you. Before I  
13          leave though, I would like to say that with  
14          these major projects coming on, we are also  
15          planning on protecting the natural resources  
16          in and around Tyonek with a conservation  
17          easement and with other projects, again making  
18          use of the full farm bill.

19                     Thank you for your time.

20          RON BARMORE, RANGE FUELS, INC.

21                     MR. BARMORE: Good morning.

22                     I'm Ron Barmore. I'm the director

1 of project development with Range Fuels, and  
2 I appreciate the opportunity to address the  
3 panel this morning.

4 And Under Secretary Dorr, this is  
5 a pleasure; it's a good opportunity for us.

6 On November 6th, 2007, Range Fuels  
7 broke ground on our first commercial scale  
8 cellulosic ethanol plant near Soperton,  
9 Georgia. This plant will be the first in the  
10 United States to produce commercial quantities  
11 of ethanol from biomass, which include all  
12 plant and plant-derived material, such as  
13 wood, grasses and corn stover.

14 The state of Georgia has an  
15 abundance of sustainable and renewable forest  
16 derived biomass, and it has a long standing  
17 and broad reaching program of conservation and  
18 stewardship of its forest lands. Known as the  
19 million-pine city, the town of Soperton's  
20 proximity to feedstock supplies for the plant  
21 as well as its proximity to the region's  
22 ethanol markets make this the perfect location



1           for our first facility.

2                         Utilizing this woody biomass the  
3           Soperton plant is expected to produce ethanol  
4           and other alcohols at a rate comparable to the  
5           latest and most advanced corn ethanol  
6           facilities running today.

7                         The challenge of building the  
8           first commercial scale ethanol facility is  
9           made more daunting because of the economic  
10          conditions in the United States and around the  
11          world today. The rapid rise in commodity  
12          prices, and the significant worldwide boom in  
13          energy and other capital-intensive projects  
14          have created challenges to our efforts to  
15          build large capital projects such as the one  
16          in Soperton.

17                        Range Fuels is very fortunate: we  
18          completed a very successful funding effort in  
19          the first quarter of 2008, reported to be one  
20          of very few that have closed in the first half  
21          of this year. We continue to advance our  
22          project, and remain encouraged by the results

1 we've obtained in our integrated test unit  
2 supporting all of our plans.

3           Despite these encouraging signs,  
4 however, the challenge remains a very large  
5 one. Our country's goals for cellulosic  
6 ethanol production as enumerated in the  
7 renewable fuel standard incorporated into the  
8 recently passed Independence and Security  
9 Act are very ambitious. Emphasizing the  
10 importance of renewable fuels to our nation's  
11 security.

12           Meeting these goals will require  
13 the utmost in coordination between industry  
14 and agencies and policymakers concerned with  
15 the security and economic health of our  
16 nation.

17           Adding to this challenge capital  
18 markets have been rocked by fallout from  
19 subprime mortgages, and related pressures on  
20 lenders make obtaining the capital resources  
21 necessary to commercialize projects such as  
22 Soperton more and more difficult.

1 All of this makes the swift  
2 enactment of Section 9003, the biorefinery  
3 assistance program, essential.

4 We have begun construction of the  
5 Soperton plant, and our construction is  
6 underway as we speak. Range Fuels encourages  
7 the USDA to enact the rules as swiftly and as  
8 broadly as the law allows to provide the  
9 essential financial assistance necessary to  
10 get these early projects to full  
11 commerciality. Time is of the essence.

12 The importance of loan guarantees  
13 cannot be underestimated in this market.  
14 Although Range Fuels was very successful in  
15 our Series B funding and has raised  
16 significant amounts of equity in our company,  
17 debt also will play a vital component in our  
18 company's ability to finance its operations.  
19 The tight debt markets make it virtually  
20 impossible to secure debt on a plant that is  
21 the first of its kind. The 9003 program will  
22 play a significant and meaningful role in

1 combining both debt and equity into a  
2 compelling fund-raising strategy.

3 Also we encourage the USDA to  
4 promulgate rules that judge each loan  
5 guarantee application on its merits, and  
6 maximize the amount of loan guarantee that an  
7 individual project can obtain.

8 For early stage projects the  
9 larger the production capacity of a project,  
10 the more likely it is that that project will  
11 benefit from economies of scale which increase  
12 its chances of commercial success. Any rules  
13 that penalize a project because of its sizes  
14 or the capital needs that it requires are  
15 going to be counterproductive to the  
16 commercial deployment of second generation  
17 biofuels.

18 Finally we ask that the department  
19 keep in mind that those of us who are the  
20 early entrants are participants in the  
21 creation of an entirely new industry. This is  
22 an industry whose future promise can only be

1           imagined. But it is also an industry that  
2           cannot be judged by the metrics currently  
3           applied to mature energy businesses.

4                        To attempt the building of such an  
5           industry in competition with these mature  
6           businesses without the support of our  
7           policymakers will slow implementation and  
8           stymie our attempts to assist in reaching our  
9           nation's energy goals.

10                      That's why we need the federal  
11           government's assistance now. Our programs  
12           should recognize that this is a brand new  
13           industry. These are first of a kind  
14           commercial facilities, and we are driving it  
15           forward into the teeth of a very challenging  
16           credit market.

17                      Any analysis done on applications  
18           for loan guarantees needs to reflect not only  
19           where the technology is today but also where  
20           it can go from here and its promise in the  
21           future.

22                      Thank you for your time.

1                   MODERATOR ORTIZ: Thank you. Next  
2 up will be Mr. Manea. And following that will  
3 be Bret Healy.

4                   ION MANEA, FLOWER POWER USA AND HERITAGE  
5 FARM COOPERATIVE

6                   MR. MANEA: Good morning. My name  
7 is Ion Manea. I'm with Flower Power USA, a  
8 Heritage Fund Cooperative. And I'd like to  
9 thank you for the opportunity to make this  
10 presentation, and have some recommendations  
11 for two terms for the bill.

12                   We grow sunflowers in Washington  
13 and Oregon State, and including the Yakima  
14 Nation reservation. And they crush these  
15 seeds, and they make a specialty type of oil  
16 that can be used directly as a diesel fuel  
17 into the farm equipment.

18                   So I'm going first to make my  
19 recommendation, and then time permitting, I  
20 will go to do the narrative for this  
21 recommendation.

22                   So the first recommendation is in

1            regards to the term biofuel. We propose the  
2            following interpretations: the term biofuel  
3            includes all fuels-solid, liquid, gases-  
4            derived from renewable biomass including  
5            vegetable oils from plants and algae. The  
6            term, advanced biofuels, includes natural  
7            vegetable oil that can be used directly or  
8            indirectly as fuel, fuel additive, or  
9            feedstock for the production of energy,  
10           regardless of energy's enriching tasks. These  
11           are jet engine or fuel cells.

12                            And the second recommendation in  
13            regards to the definition of biorefinery. We  
14            propose a definition of biorefinery to be  
15            interpreted as: the term, biorefinery, means  
16            a facility including equipment and processes  
17            that, A, converts any organic matter that is  
18            available on a renewable or recurring basis,  
19            including agricultural communities; and to  
20            advanced fuels including vegetable oil that  
21            can be used directly or indirectly as fuel,  
22            fuel additives, or fuel feedstock for the

1 production of energy; and B, may produce  
2 electricity; and C, produced by oil based  
3 products including food or feed.

4 Now I will go ahead and time  
5 permitting to read the narrative to these two  
6 proposals.

7 As for this bill, original  
8 technology includes advanced biofuel and  
9 biorefinery terms. Advanced biofuel  
10 specifically includes diesel equivalence for  
11 a fuel from renewable biomass including  
12 vegetable oil.

13 Biorefinery means a facility that  
14 converts renewable biomass into biofuels, and  
15 bio-based products, and may produce  
16 electricity. Biofuel means a fuel derived  
17 from renewable biomass.

18 Renewable biomass includes any  
19 organic matter that is available on a  
20 renewable basis including renewable prime  
21 material including feed grains and other  
22 agricultural commodities, other plants and



1 trees and algae.

2 It is well established that plant  
3 and algae materials are renewable biomass. It  
4 is well established that vegetable oil is a  
5 product of plant and algae and could be  
6 derived from their deposits, not from starch  
7 deposits.

8 It's a well established fact that  
9 vegetable oil is a fuel that can be combusted  
10 with oxygen to generate energy close to that  
11 generated by an equal volume of fossil diesel  
12 fuel.

13 It follows according to the bill  
14 definition that vegetable oil as a fuel  
15 derived from renewable biomass is a biofuel,  
16 and vegetable oil as a fuel derived from  
17 renewable biomass but not from corn kernel  
18 starch is an advanced fuel.

19 Vegetable oil used as a feedstock  
20 is the sole reason some chemical derived  
21 diesel equivalent fuel claimed biofuel and  
22 advanced biofuel status.

1                   Though emerging technologies for  
2                   direct usage of natural vegetable oil as  
3                   diesel or heating fuel equivalence are  
4                   emerging, and at least potential for jet fuel  
5                   formulation and fuel cell hydrogen feedstock  
6                   has been documented in America. Fuel grade  
7                   quality assured vegetable industries --

8                   We propose the following  
9                   interpretation. The term, biofuel, includes  
10                  all fuel, solid, liquid and gasses, derived  
11                  from renewable biomass including vegetable oil  
12                  from plants and algae. The term, advanced  
13                  biofuels, includes natural vegetable oil that  
14                  can be used directly or indirectly as fuel;  
15                  fuel additives; or feedstock for the  
16                  production of energy regardless of the energy  
17                  generation pathway. These are jet engine,  
18                  fuel cells, et cetera.

19                  And now in regards to biorefinery  
20                  definition - biorefinery, excuse me.  
21                  Biorefinery is a facility that converts  
22                  biomass into biofuels and bio-based products

1           that may produce electricity. Biobased-  
2           product means a product determined by the  
3           secretary to be a commercially or industrial  
4           product other than food or feed, that is  
5           composed in whole or in significant part of  
6           biological products, or an intermediate  
7           ingredient or feedstock.

8                         It is not clear if in addition to  
9           conversion of an equal biomass to biofuels at  
10          biorefineries mandated to produce bio-based  
11          products as well. In the production of bio-  
12          based products - if the production of bio-  
13          based products is not mandatory, then no  
14          further clarification is needed, and any  
15          facility that produces advanced biofuels  
16          includes vegetable oils meets the definition  
17          of biorefinery, regardless of production of  
18          bio-based products.

19                        If the production of bio-based  
20          products is mandatory, then more clarification  
21          is needed. One interpretation would be that  
22          if food and feed are commercial industrial

1 biological products, then they can be used as  
2 an intermediate ingredient or feedstock, the  
3 secretary's determination is not needed. This  
4 interpretation is in accordance with Section  
5 9008 that specifically includes animal feed as  
6 a commercial industrial product derived in  
7 connection with the conversion of biomass to  
8 fuel.

9 It's also in accordance with  
10 another specification in Section 9008 that  
11 includes animal feed as a part of the range of  
12 diversified bioproducts that potentially can  
13 include the feasibility of fuel production and  
14 fuel biorefinery.

15 Another interpretation would be  
16 that food and feed are not bio-based products.  
17 In this case a facility that converted  
18 biological materials to advanced biofuels and  
19 food or feed byproducts will not meet the  
20 definition of biorefinery, regardless of their  
21 high commercial or industrial value as foods  
22 or feeds, intermediate agreement or feedstock.

1 An example would be a facility that produced  
2 advance biofuel, and other commercial  
3 industrial byproducts, that either have a high  
4 biological content, or can be used as  
5 intermediate ingredients or feedstock.

6 If the byproducts are utilized in  
7 the food or feed supply chain, a value will be  
8 added to them to substantially reduce the cost  
9 of that advanced biofuel. However, the  
10 facility will not meet the requirements for  
11 the biorefinery definition, despite fulfilling  
12 the purpose and goals of Section 9003, and  
13 having the potential to increase the  
14 feasibility of fuel production in that  
15 facility. If the same products would be  
16 utilized in a nonfood or nonfuel application,  
17 thus leaving the food and feed supply chain,  
18 it is probably that their contribution to the  
19 production, cost reduction, of advanced  
20 biofuel be minimum. However, the facility  
21 will meet the requirements of biorefining  
22 definition.

1                   And we have another issue here  
2                   with definition of commercial or industrial  
3                   products. If the byproduct isn't a commercial  
4                   or industrial byproduct, and it is not  
5                   composed in significant part of biological  
6                   products, or is not an intermediate ingredient  
7                   of foodstock, then it is not a biobased  
8                   product. And then the facility producing it  
9                   as biofuel does not meet the definition of  
10                  biorefinery requirements.

11                  IN this case even a facility with  
12                  a high degree of conversion of biological  
13                  material to advanced biofuels, while having a  
14                  small byproduct of known commercial or  
15                  industrial value will not be meeting the  
16                  biorefinery requirements. An example would be  
17                  a wood gassification facility that will  
18                  convert most of the wood to clean combustion  
19                  gas, and will have a small nonbiological ash  
20                  residue of no commercial or industrial value.

21                  We propose a definition of  
22                  biorefinery to be interpreted as: the term,

1           biorefinery, means a facility including  
2           equipment and processes that, A, converts any  
3           organic matter that is available on a  
4           renewable recurring basis including  
5           agricultural commodities, and advanced  
6           biofuels, including vegetable oil that can be  
7           used directly as fuel, fuel additives, or  
8           feedstock for the production of energy; B, may  
9           product electricity; and C, may product bio-  
10          based products including food and/or  
11          feedstock.

12                            Thank you very much for your  
13           attention or consideration. If you have any  
14           time for questions, I would be happy to  
15           address them.

16                            MODERATOR ORTIZ: Thank you, Mr.  
17           Manea.

18                            Next up is Bret Healy. He will be  
19           followed by Al Christopherson.

20           BRET HEALY, KANSAS BIOSCIENCE AUTHORITY

21                            MR. HEALY: Good morning, and  
22           thanks for the opportunity to be here.

1                   I want to applaud the leadership  
2 of Under Secretary Dorr in bringing this  
3 forum together and pushing Title IX which as  
4 he rightly noted can be one of the big  
5 levers for the renewable energy industry.

6                   I'll help get us on time, because  
7 I'm going to be very, very brief. I've got  
8 two main recommendations I want to make from  
9 the perspective of the Kansas Bioscience  
10 Authority, which is a public entity created  
11 by the legislature and governor of Kansas to  
12 invest in the biosciences, bioenergy being  
13 one of the five main sectors of investment.

14                   First and foremost, as the rules  
15 are developed, and the loan guarantee model  
16 that maximum amortization to the fullest  
17 extent allowed I guess by statute, by  
18 precedent, is in place.

19                   Oftentimes renewable energy  
20 projects are faced with a more challenging  
21 capital structure and amortization schedule  
22 compared to conventional oil and gas, and



1 conventional coal-fired and other electrical  
2 generation capacity projects that have 30 to  
3 50-year time periods on the amortization.

4 It's critically important to  
5 these projects.

6 Secondly, and probably a more  
7 specific to the interests of the Kansas  
8 Bioscience Authority, is that as this loan  
9 guarantee package is put together, given  
10 that there is a statutory limitation that  
11 the secretary can only do 90 percent loan  
12 guarantees, that rules if they are allowed  
13 to be developed that other entities can fill  
14 up the bucket for a 100 percent loan  
15 guarantee for that portion, particularly as  
16 another speaker mentioned the challenging  
17 debt markets that we are in, the fact that  
18 this is cutting edge technology. There are  
19 going to be hits and misses as these  
20 technology projects go forward, and that a  
21 very critical component to getting the  
22 investors, getting the banks and other

1 financial institutions will to underwrite  
2 those loan guarantees and put the funds in  
3 place, that they are not be a confusing 10  
4 percent tail that's out there. So that  
5 entities like the Kansas Bioscience  
6 Authority or others can step in, fill that  
7 loan guarantee bucket up, making that a  
8 product that trades a little easier in the  
9 markets, and something that is easier to get  
10 those loan guarantees.

11 With that, those were the two  
12 specific recommendations we had to make  
13 today, you'll have written comments for some  
14 of the rest. And with that, get us back on  
15 track.

16 Thanks.

17 MODERATOR ORTIZ: Thank you.

18 Next up is Al Christopherson, and  
19 following that will be Rick Grant.

20 AL CHRISTOPHERSON, AGRICULTURAL UTILIZATION  
21 RESEARCH INSTITUTE

22 MR. CHRISTOPHERSON: My name is Al

1 Christopherson. I'm chairman of the board  
2 of directors of Minnesota Agricultural  
3 Utilization Research Institute, which is a  
4 nonprofit organization created by the  
5 Minnesota legislature to improve the economy  
6 of rural Minnesota through the development  
7 of new uses of our state's agricultural  
8 commodities.

9 A key area of value added  
10 advancement continues to be in the  
11 development and implementation of renewable  
12 energy enterprises, fueled by the  
13 agricultural products and other renewable  
14 sources.

15 AURI has a long history of  
16 advancing renewable energy from agricultural  
17 products. We've worked extensively on  
18 biofuels research and development of  
19 alternative energy resources, such as  
20 biodiesel, biomass, and biogas. Since 2004  
21 we have operated the Center for Producer-  
22 Owned Energy which was created from USDA

1 funding, awarded through the agricultural  
2 innovation center demonstration program.

3 Since 2006 we have coordinated  
4 the Minnesota Renewable Energy Roundtable,  
5 which is a statewide effort involving more  
6 than 100 organizations to identify barriers  
7 and create action plans for advancement of  
8 renewable energy opportunity in the state.

9 It is our belief that this  
10 background and experience can help  
11 contribute to the efficiency and  
12 effectiveness of several of the energy  
13 programs outlined in this bill. It has been  
14 our experience that providing local  
15 grassroots assistance that can be applied  
16 locally offers businesses and community the  
17 greatest chance for commercial success.

18 Under Section 9003, biorefinery  
19 assistance, we certainly understand the  
20 importance of that program. AORI programs  
21 revolve around determining technical and  
22 economic feasibility and commercial

1 viability. It is important that unbiased  
2 studies are conducted, and to the extent  
3 possible results shared with other  
4 interested parties. This prevents  
5 unnecessary duplication, or as we call it,  
6 reinventing the wheel, of efforts and paves  
7 the way for future groups in the next  
8 generation of development.

9           It is vital that economies of  
10 scale are considered as well as plans for  
11 applying what has learned on the  
12 demonstration scale to fit commercial sized  
13 operations.

14           It has been our experience that a  
15 key factor in the viability of any renewable  
16 energy enterprise, particularly one  
17 involving biomass, revolves around the  
18 feedstock. Most biomass has different cost,  
19 handling, storage, and transportation  
20 considerations, other than traditional  
21 energy sources. These variables factor  
22 heavily into a project's operating costs and

1 overall viability.

2 We have found it vital that  
3 organizations venturing into this area have  
4 a network of resources to assure access to  
5 the best possible solutions and the  
6 implementation plans.

7 In terms of 9004, repowering  
8 assistance: for existing biorefineries,  
9 existing or energy cost greatly impact the  
10 profitability. Many are looking to offset  
11 these costs by adapting new technologies  
12 utilizing biomass or other available  
13 resources to their operations.

14 We have successfully assisted  
15 several Minnesota processors in their  
16 efforts to repower using biomass. These  
17 plants are using various feedstocks such as  
18 agricultural residue, wood fiber, ethanol  
19 processing co products, and other low value  
20 sources to power their operations.

21 Through technologies such as  
22 gassification, fluid bed reactors, and

1 anaerobic digesters, many of these  
2 processors have significantly reduced their  
3 need for fossil fuels.

4           Installing many of the current  
5 technologies requires significant capital  
6 investment, and we've talked about that  
7 here. Funding through the repowering  
8 assistance program will certainly help  
9 offset that barrier. It is vital that  
10 biorefineries that are considering  
11 repowering get unbiased information and  
12 consider all possible technology given the  
13 available feedstocks.

14           Seeking out and tapping into  
15 expertise is certainly vital to success, and  
16 helps opportunities to develop more rapidly.

17           Colocating facilities should also  
18 be considered. Currently in Minnesota, warm  
19 water from a sugar beet processing plant is  
20 being captured for an aquaculture facility,  
21 and excess heat from a refinery is being  
22 captured for greenhouses that produce food

1 for local markets.

2 This colocation can maximize the  
3 efficiency and spur development as well as  
4 wise energy use.

5 The biorefinery program is  
6 outlined in 9005, certainly the Mustang  
7 wasn't Henry Ford's first car. It was  
8 developed after several generations of  
9 vehicles. Similarly, efforts are underway  
10 to develop the next generation of biofuels  
11 using alternative feedstocks.

12 The key to success in this  
13 program will be to - the ability to foster  
14 implementation. Now here our experience has  
15 been that many technologies using biomass  
16 and forestry resources for fuel are  
17 technically feasible but aren't currently  
18 economically competitive.

19 It will take funding as well as a  
20 network of support to develop sustainable  
21 options.

22 These options will need to be



1 proven both technically and economically  
2 prior to implementation. And again,  
3 unbiased evaluations need to be developed,  
4 and that information shared with interested  
5 parties in an effort to spur further large  
6 scale development.

7 Now we have some comments  
8 regarding the rural energy self-sufficiency  
9 initiative, and into the biomass assistance  
10 program. I'm going to exclude those in the  
11 effort to remain within my time.

12 One of the things we have found,  
13 however, that audits of each community will  
14 reveal unique resources and circumstances  
15 with baseline information that could be  
16 universally beneficial. And all of this  
17 begs the effort to be communicative amongst  
18 the various agencies which has been a  
19 problem to say the least, and to share that  
20 information. Again, in this whole arena, we  
21 need not keep reinventing the wheel. We  
22 need to swallow our own pride and recognize

1           that other people may have done some of the  
2           things that we are trying to do.

3                         In conclusion one of the most  
4           important lessons that the AORI has learned  
5           in its 20 year history is that no project  
6           should stand in isolation, but rather a  
7           broad collaborative work of experts. And  
8           that work of experts should be credited to  
9           assure success from feasibility to  
10          implementation. Whether a project is found  
11          to be viable or not, the lessons learned  
12          from each should add to a broader body of  
13          knowledge that is easily accessible and  
14          fosters wider success in the next generation  
15          of programs.

16                        I want to thank you for the  
17          opportunity to provide these comments today.  
18          It is encouraging to see the serious  
19          attention being given to the development of  
20          long term energy solutions from renewable  
21          resources that not only work towards energy  
22          independence but also economic prosperity



1 and I thank you for the opportunity to speak  
2 to you today on behalf of Boise, Inc. 4,600  
3 employees, headquartered in Idaho.

4 Boise, Inc., is a paper and  
5 packaging manufacturing company that  
6 generates revenues in excess of \$2 billion  
7 annually. My intention today is to draw  
8 attention to the unintended effects of  
9 government subsidization of biomass-based  
10 renewable energy initiatives may have on the  
11 national supply and demand balance of our  
12 national raw wood materials.

13 I request as you develop and  
14 implement regulations that you are fully  
15 aware of the consequences of companies in  
16 the forest-based industries. We are seeing  
17 new pressures on the raw wood materials  
18 supply from government subsidized bioenergy  
19 companies. Given this new competition,  
20 established industries are not only  
21 contending with higher input costs for  
22 energy, chemicals and freight, but also

1 stand to be unfairly disadvantaged by  
2 competing with subsidized entities for vital  
3 biomass feedstock.

4 Wood fiber is the key component  
5 in the production of paper and packaging  
6 materials. At Boise, we are committed to  
7 sustainability. Our integral values are  
8 working safely, using our natural resources  
9 wisely, engaging in our communities where we  
10 operate, and taking positions to improve the  
11 environment for future generations.

12 We have obtained chain of custody  
13 certification, the sustainable forest  
14 initiative, FSI, and the program for the  
15 endorsement of forest certification.

16 Our paper and manufacturing  
17 facilities have an environmental management  
18 system that is certified to meet ISO 14001.  
19 Boise has made it a priority to protect air  
20 quality. From 2000 to 2004 we reduced  
21 greenhouse gas emissions by 5 percent  
22 companywide. In 2007 we set a new goal for

1 further reductions of at least 10 percent by  
2 2014.

3 As part of our commitment as a  
4 member of EPA's climate leadership  
5 partnership, which Boise joined in 2005,  
6 Boise is also a member of the Chicago  
7 Climate Exchange and Energy Star.

8 At Boise, Inc., approximately 65  
9 percent of the energy used in our  
10 manufacturing facilities come from renewable  
11 resources, with the bulk being biomass.  
12 Given our commitment to sustainability, and  
13 the fact that we operate a de facto  
14 biorefinery already, Boise supports the  
15 movement to biomass based energy. We  
16 understand the vital role it plays in  
17 reducing our country's dependence on fossil  
18 fuels and greenhouse gas emissions.

19 But the government and  
20 legislature emphasis on biomass energy has  
21 significant implications for our company and  
22 our peers in the forest products industry.

1 For example in the state of Alabama where we  
2 operate our Jackson paper mill, we are  
3 seeing a rapidly expanding number of new and  
4 planned bioenergy facilities that will  
5 compete with us for wood biomass in that  
6 state. In Minnesota six facilities are  
7 under consideration with one to 260 miles of  
8 our International Falls mill.

9 All that would consume mill  
10 residuals, open market biomass, and/or round  
11 wood and woody biomass. In the Pacific  
12 Northwest where we operate two paper mills  
13 the situation is similar.

14 The reason for their increased  
15 activity we believe are partly global in  
16 nature, and partly the result of pressure in  
17 the U.S. to identify alternative sources of  
18 fuel given high oil and gas costs. Globally  
19 various environmental initiatives including  
20 the cap in trade, are emerging from the  
21 European Union. This has provided an  
22 impetus for member countries to look for

1 alternative fuels to meet their  
2 environmental objectives. The U.S. is one  
3 of their targets.

4 Here in the U.S. as you know  
5 there are several specific driving  
6 contributes to this trend: development of  
7 regulations for energy; the title of the  
8 farm bill by your office is a critical  
9 component to this situation.

10 I would like to now address  
11 specific elements of Title IX on energy in  
12 the 2008 farm bill, biorefinery assistance.

13 Specifically the energy title for  
14 the farm bill provides one billion to  
15 promote biomass energy, including forest  
16 based biomass energy, in several programs.  
17 Section 9003 calls for grants and loan grant  
18 guarantees to new and retrofitted commercial  
19 scale biorefineries.

20 The secretary must take into  
21 consideration whether the project will be a  
22 positive impact on resource conservation,



1 public health and the environment.

2           Moreover in Section 9003, the  
3 Secretary must evaluate several critical  
4 criteria including whether an applicant can  
5 establish that if adopted the biofuel  
6 production technology process in the  
7 application will have - not have any  
8 significant negative impacts on existing  
9 manufacturing plants or other facilities  
10 that use similar feedstocks, page 424.

11           We believe this determination is  
12 essential to avoid potential economic  
13 hardship on mills' operation already using  
14 this fiber.

15           In addition the legislation  
16 provides \$320 million in mandatory funding  
17 for loan guarantees for commercial  
18 biorefineries; \$250 million of the maximum  
19 amount is guaranteed for physical year 2009  
20 and `10. The joint manager state that  
21 exists in facilities including wood products  
22 facilities should be eligible for this

1 program, page 217.

2 It's essential that the funds  
3 amending the Biomass Research and  
4 Development Act of 2000 be provided.

5 Lastly, Section 9005 of the 2008  
6 farm bill includes \$300 million for a period  
7 of four years to fund biomass growers. In  
8 this regard we urge the Agency to factor in  
9 the following managers' statement: With  
10 respect to forest biomass, the feedstock for  
11 the production of advanced biofuel is often  
12 the same feedstock used by forest products  
13 facilities, including pulp and paper mills.  
14 The managers encourage the secretary to  
15 consider competing market outlets when they  
16 establish a payment rate for such  
17 feedstocks, page 226 of the joint statement  
18 of managers.

19 Biomass crop assistance: we urge  
20 Section 9011 that current wood products  
21 operations be eligible for remuneration  
22 under Section D. We believe this may be the

1 original intent of the legislation, and we  
2 believe that the Agency taking this  
3 position, it will be a greater incentive for  
4 my company and others to expand their  
5 renewable energy supplies.

6 Boise's position: we appreciate  
7 the new economic development opportunities  
8 in our local area, and under the need to  
9 diversify our national energy portfolio, but  
10 we must ensure that existing wood consuming  
11 mills be given a fair opportunity for  
12 survival.

13 It is critical that an economic  
14 balance be focused on the agencies  
15 developing regulations. Otherwise we may  
16 damage economic equilibrium and created  
17 unintended consequences for operations and  
18 our employees.

19 History has shown that subsidized  
20 competitors often behave differently in a  
21 marketplace than unsubsidized competitors.  
22 A new plan bioenergy producers bolstered by

1 subsidies and incentives disproportionately  
2 consume and constantly run up the price of  
3 chips, round wood, local mills will be  
4 placed in a crisis situation. Ultimately  
5 jobs may move offshore.

6 Existing businesses have  
7 contributed to the nation's economy engine  
8 for decades, and we want this tradition to  
9 continue. This will ensure that our  
10 packaging, paper, manufacturing businesses  
11 are given a fair opportunity to prosper and  
12 thrive in the years ahead.

13 We appreciate the opportunity to  
14 share our viewpoint with you today. We  
15 offer any assistance that will be useful to  
16 ensure prosperity for our employees, our  
17 communities, and shareholders, while also  
18 recognizing the importance for the U.S. and  
19 the rest of the world in creating more  
20 sustainable sources of energy.

21 Thank you.

22 MR. DORR: One quick question. We

1 appreciate your remarks. There was nothing  
2 in them that reflected on the gains and  
3 productivity based on a number of new  
4 technologies that are occurring and creating  
5 the development of enhanced production  
6 efficiencies.

7 Do you have information that you  
8 could provide us that would factor in on  
9 some of these issues, too, relating your  
10 existing concerns?

11 MR. GRANT: Sure. We'll send that  
12 to you.

13 MR. DORR: Thank you.

14 MODERATOR ORTIZ: All right.

15 Thank you, Mr. Grant.

16 Next is Mr. Kyle Simpson, and he  
17 will be followed by Mr. Chris Roach.

18 KYLE SIMPSON, RENTECH LLC.

19 MR. SIMPSON: Thank you for the  
20 opportunity to provide comments on the  
21 implementation of Title IX. My name is Kyle  
22 Simpson. I'm with the firm Brownstein, Hyatt,

1 Farber, Shreck, and I'm appearing here at this  
2 public meeting on behalf of Rentech, which is  
3 one of the world's leading synthetic fuels  
4 technology and development companies.

5 Over the last 25 years the company  
6 has developed and patented the Rentech  
7 process, an advanced version of the well  
8 established Fischer-Trope process. The  
9 Rentech process can convert a wide array of  
10 carbon-bearing material, including green  
11 resource such as biomass, into ultra-clean  
12 fuels and chemicals.

13 Our objective is to create value  
14 for our stakeholders by helping the world  
15 reduce its dependency on oil and to lower  
16 emissions including harmful greenhouse gases.

17 With these goals in mind, we  
18 strongly supported the inclusion of language  
19 in the conference report that accompanied the  
20 act that specifically encourages the secretary  
21 of agriculture and the secretary of energy to  
22 put development of renewable aviation fuels on

1 equal footing with other fuels by giving  
2 consideration to projects under the  
3 initiatives in Title IX that would perform  
4 innovative and beneficial research and  
5 commercial development of renewable aviation  
6 fuels.

7 This language in the conference  
8 report clearly shows that the Congress sought  
9 to expand the United States Department of  
10 Agriculture's efforts on renewable fuels,  
11 development to include renewable aviation  
12 fuels.

13 Rentech is a company that is  
14 developing a U.S.-based synthetic jet fuel  
15 production capability, and is interested in  
16 support from the federal government to meet  
17 the capital requirements that are necessary to  
18 build these very expensive facilities.

19 An initial customer for the  
20 renewable jet fuel will be the United States  
21 Air Force which has a goal of providing about  
22 half of its fuel in a synthetic combination

1 with petroleum-based fuel by 2016.

2 The bioenergy program for advanced  
3 biofuels authorizes initiatives that could  
4 provide funding that would help us to  
5 accelerate our ability to demonstrate the  
6 company's capacity to commercialize a facility  
7 to make renewable aviation fuel.

8 For example as a part of our  
9 development plan, Rentech would like to  
10 acquire a gassifier to convert renewable  
11 feedstocks to synthetic gas. Rentech has a  
12 proprietary process that can convert that  
13 syngas to jet fuel.

14 The current challenge is the  
15 commercialization of biomass gassification  
16 systems, which exist but are not in commercial  
17 operation in the U.S. Rentech would like to  
18 acquire and install an existing gassifier at  
19 its East Dubuque, Illinois fertilizer plant.  
20 The gassifier would provide syngas from  
21 biomass to the fertilizer plant for fertilizer  
22 production which would be a one-of-a-kind



1 facility. And we would also transport some of  
2 that syngas to our product demonstration unit  
3 in Colorado, where it would be used to produce  
4 jet fuel.

5 Just a few weeks ago we began to  
6 produce synthetic aviation fuel from natural  
7 gas at that production demonstration unit.

8 In addition to Section 9003, and  
9 perhaps 9005 in the act, other sections that  
10 you are taking comment on today may well be  
11 suited to advance the production of renewable  
12 aviation fuel and feedstocks for that purpose.

13 As intended by Congress, we  
14 encourage you to give equal consideration to  
15 projects implemented under any of these  
16 initiatives that would perform innovative and  
17 beneficial research in commercial development  
18 of renewable aviation fuels.

19 Thank you.

20 MODERATOR ORTIZ: Thank you, Mr.  
21 Simpson.

22 Up next is Mr. Grant - excuse me,

1 Mr. Chris Roach; is going to be followed by  
2 Ryan Stroschein.

3 CHRIS ROACH, ABENGOA BIOENERGY

4 MR. ROACH: Thank you. We'll wait  
5 a second for the presentation to be put up on  
6 the screen.

7 I'd like to thank Under Secretary  
8 Dorr and the committee for the opportunity to  
9 speak today.

10 My name is Chris Roach. I'm the  
11 project development manager with Abengoa  
12 Bioenergy. Today I'd like to talk about our  
13 company and our efforts to develop the first  
14 commercial scale facility employing our  
15 cellulosic ethanol technology.

16 Considering the time I'm going to  
17 move through the slides pretty quickly to get  
18 to our comments about the sections in Title  
19 IX.

20 Abengoa is a technology company  
21 that is dedicated to the development of  
22 sustainable solutions and sustainable

1 technologies, especially in the area of  
2 energy. Two of our business units up on this  
3 slide are our bioenergy unit and our solar  
4 unit.

5 Abengoa Bioenergy today, we are  
6 one of the largest producers of ethanol in  
7 North America. We are the largest producer of  
8 ethanol in Europe. We are present in all  
9 three major markets, Brazil, Europe and North  
10 America. We also are a leader in the  
11 development of new ethanol technologies, and  
12 we've got almost \$500 million committed today  
13 to the development of new ethanol  
14 technologies, including biomass conversion to  
15 ethanol.

16 This is our facilities globally.  
17 By 2010 we'll have nearly 700 million gallons  
18 a year of ethanol production.

19 One of the key components of our  
20 strategic growth today is the development and  
21 commercialization of a price-competitive  
22 biomass to ethanol technology.

1           I skipped over a slide I'll just  
2           mention. We are also very involved with the  
3           Department of Energy in the development of  
4           these technologies. In particular we've  
5           received a \$76 million grant for this  
6           commercial biorefinery that we are working on  
7           in southwest Kansas, which I'll talk a little  
8           bit about, which is Abengoa Bioenergy Hybrid  
9           of Kansas. That's the name of the project  
10          company.

11                 First commercial facility of  
12          Abengoa Bioenergy, cellulosic energy  
13          technology. It's a \$500 million project, of  
14          which we received, again, the \$76 million  
15          grant from the Department of Energy. And  
16          Abengoa, our parent company, is going to  
17          supply all the required equity for this  
18          project.

19                 Our project start of construction  
20          is anticipated in the middle of 2009, with  
21          operation by 2011. We currently have project  
22          engineering and development which has been

1 ongoing since 2007 with over \$20 million spent  
2 to date. Our location is in Hugoton, Kansas,  
3 which is the southwest corner of Kansas, and  
4 that was based on the local grain and feed  
5 market. A significant supply of biomass - we  
6 are targeting corn stover, wheat straw and --  
7 and then eventually dedicated energy crops,  
8 mainly switchgrass for that area. And the  
9 very strong state and local support that we  
10 received when we were doing our site  
11 selection.

12 The project: it's a hybrid  
13 facility. We are combining our cellulosic  
14 biomass to ethanol technology. In addition we  
15 are also implementing a biomass gassification  
16 technology. And then also a more tradition  
17 grain-to-ethanol facility, which is going to  
18 be primarily utilizing grain sorghum as  
19 available in the area.

20 We're looking at 150,000 dry tons  
21 per year of biomass converted to 12 million  
22 gallons per year of cellulosic ethanol;

1           250,000 dry tons of biomass to synthesis gas  
2           or biogas to replace any natural gas that we  
3           would normally need for this facility. And  
4           then 30 million bushels of a combination of  
5           primarily grain sorghum and then corn as  
6           necessary for 90 million gallons of ethanol.

7                       Challenges today to the cellulosic  
8           ethanol industry: these are new technologies  
9           that have not yet hit their commercial scale,  
10          and are not yet competitive with more  
11          conventional ethanol technologies. And there  
12          is certainly a higher risk associated with  
13          these new technologies. The development of a  
14          sustainable supply of biomass is also a  
15          challenge today. We are looking to college  
16          biomass on a scale that really hasn't been  
17          done before.

18                      So one of the key components for  
19          the future success of our industry is the  
20          development of that sustainable supply of  
21          biomass. So in essence, really, what we are  
22          looking at are challenges to be economic, to

1           be financial competitive, for these projects  
2           to stand alone and be financially viable. And  
3           then also the technology risk associated with  
4           them.

5                         For our project and our company,  
6           it's not an issue of raising the necessary  
7           equity to get this project off the ground;  
8           it's a matter of getting the necessary  
9           financing which is really our biggest  
10          challenge today.

11                        Which leads to our comments about  
12          Title IX, the main being the potential  
13          assistance in the biorefinery assistance  
14          program; the loan guarantee program really  
15          could go a long way towards our project and  
16          our company being able to secure the kind of  
17          financing needed to get this project into  
18          construction.

19                        A guarantee could ensure a higher  
20          subscription rate during our syndication  
21          process which is where we solicit lenders to  
22          join in on the project.

1                   As far as how to maximize the  
2                   program's effectiveness, for us, because we  
3                   are starting the project next year, it needs  
4                   to be available to us in as early 2009 as  
5                   possible, so that when we go to the financial  
6                   market we've got some kind of commitment  
7                   available to us.

8                   Comments earlier about the level  
9                   of guarantee are also important for us, either  
10                  to get a 100 percent loan guarantee, which is  
11                  not what is currently written into the bill,  
12                  or to allow stripping of the non-guaranteed  
13                  debt from the guaranteed debt, because having  
14                  a non-guaranteed debt split off will allow us  
15                  to attract more investors for the guaranteed  
16                  debt piece. Having a quasi-combined debt  
17                  piece is going to limit the types of financial  
18                  institutions that would be willing to invest  
19                  in the project.

20                  And then also we think it's  
21                  important to prioritize awards not only on  
22                  probability of success technically but



1 financially.

2 I also would like to make some  
3 comments about the biomass crop assistance  
4 program, which we also think is potentially a  
5 big asset in the development of biomass supply  
6 of reliable and sustainable biomass supply,  
7 which is important for us for financing as  
8 well. I'd like to read some comments about  
9 the section.

10 Part (a)(7), the definition of  
11 producer with regards to payments: we would  
12 like consideration to include a producer that  
13 has partial investment or ownership by the  
14 project sponsor or project companies like  
15 ours. In many cases we are finding that to  
16 get producers to move into biomass crop  
17 production may require some outside  
18 investment, and we may be the only outlet to  
19 provide that investment.

20 In part (c)(5)(b) which is about  
21 the land preparation costs, these should  
22 include land preparation - leveling of land to

1           make it suitable for harvesting; week control  
2           during the first establishment years - we  
3           would believe the first three years is  
4           appropriate; and any nutrient supplements that  
5           might be required.

6                           And then secondly, although the  
7           law excludes land currently enrolled in CRP,  
8           we feel it is critical for the successful  
9           establishment of energy crops that this  
10          program supports the proactive and sustainable  
11          version of CRP acres into eligible land under  
12          this program. Benefits from this would  
13          include: for acres that are coming off CRP  
14          that can't be re-enrolled due to  
15          oversubscription, which is the case near our  
16          project, those acres could be converted to  
17          producing switchgrass that would preserve the  
18          same conservation goals of CRP, and after a  
19          few years will be supported by private  
20          industry instead of the CRP program.

21                           The alternative is, these fragile  
22          soils could be torn up and converted to

1 farmland once they come off CRP. For  
2 landowners who want to convert fro CRP to this  
3 program for economic reasons, potentially the  
4 same benefits that I just mentioned. CRP  
5 conservation goals could be met after these  
6 incentives expire, and the costs again would  
7 be covered by private industry.

8 We are also thinking about how to  
9 successfully convert from CRP to BCAP. We  
10 would propose a consideration that CRP acres  
11 that are coming up for expiration but are  
12 still in CRP be allowed to begin to establish  
13 these energy crops prior to coming off a  
14 contract, so that when they come off contract  
15 they would already be producing energy crops.  
16 Or for acres that are going to come off of  
17 contract in the near term before this program  
18 is available, consider an extension of those  
19 acres within CRP so that they could then go  
20 through this establishment period and again  
21 have these dedicated energy crops available  
22 when they come off of CRP.

1                   MODERATOR ORTIZ: Thank you, Mr.  
2                   Roach. Ten minutes has passed. Your comments  
3                   will be available on the public comment site,  
4                   on the website, so we will have to move on  
5                   unfortunately.

6                   MR. ROACH: Thank you. Thank you  
7                   very much.

8                   MODERATOR ORTIZ: Next is Mr. Ryan  
9                   Stroschein, and will be followed by Richard  
10                  Altman.

11                 RYAN STROSCHEIN, AIR TRANSPORTATION  
12                 ASSOCIATION, AVIATION

13                 MR. STROSCHEIN: I have a  
14                 presentation.

15                 MODERATOR ORTIZ: Thank you.

16                 MR. STROSCHEIN: Well, thank you  
17                 for the opportunity to be here today. My name  
18                 is Ryan Stroschein. I'm director of  
19                 government affairs for the Air Transport  
20                 Association.

21                 The ATA is a group that represents  
22                 all the major airlines and air carriers in the

1 United States: Alaska, American, Continental,  
2 Jet Blue, Midwest, and several others; and  
3 also the major cargo carriers in the U.S.  
4 including UPS and FedEx.

5 And my presentation today is  
6 designed to demonstrate how very interested  
7 and committed the U.S. aviation industry is to  
8 the development of renewable alternative fuel  
9 sources.

10 And my presentation is intended to  
11 be considered in conjunction with one that you  
12 will hear in a few minutes by Richard Altman  
13 who is the director of CAAFI, the Commercial  
14 Aviation Alternative Fuels Initiative. We are  
15 a member of CAAFI, and he will have some  
16 specific recommendations on exactly what we  
17 would like to see for the implementation of  
18 Title IX.

19 But I'm here today to make it  
20 clear how committed we in the U.S. aviation  
21 industry are to developing renewable aviation  
22 fuels.

1                   As you can see from slide one,  
2                   that depicts the expense that we've incurred  
3                   over this decade in fuel costs. And as you  
4                   can see early on in this decade we were  
5                   spending well under \$20 billion a year in  
6                   fuel. This year we will spend in excess of  
7                   \$61 billion on fuel alone.

8                   Put that in context: that's the  
9                   equivalent of 267,000 full-time jobs assuming  
10                  \$75,000 a year in salary. So a very  
11                  conservative estimate.

12                  As you can see by the green line  
13                  on this chart, that is not a function of our  
14                  increasing our fuel usage. We will use less  
15                  fuel in 2008 than we did in 200, but our fuel  
16                  costs will have gone up more than five times,  
17                  an increase of \$20 billion in just one year.

18                  So fuel has become the single  
19                  largest cost center for the airline industry,  
20                  and it's causing us significant economic  
21                  hardship.

22                  The reaction to that: we've been

1           forced to cut service. As you can see these  
2           bars indicate the contraction in service that  
3           we've undertaken over the early part of this  
4           year, and some projections about what's  
5           already been announced for service cuts toward  
6           the late part of the year. As you can see  
7           fewer planes, fewer flights, fewer seats  
8           flying around the country.

9                           And obviously we are not in the  
10           business of getting smaller and providing less  
11           service. But that is what we've been forced  
12           to do to react to these soaring fuel costs.

13                           And one take-away from this slide:  
14           I would suggest that you may want to book your  
15           holiday travel plans now.

16                           This map just quickly shows, every  
17           single three digit code on this map is an  
18           airport that has completely lost service from  
19           a major air carrier in the United States,  
20           completely pulled out, lock stock and barrel.  
21           And as you can see, these are not all tiny  
22           airports: BWI, JFK in New York, Chicago

1 Midway, St. Louis, San Antonio, Oakland. All  
2 of these airports, dozens and dozens of them,  
3 have completely lost commercial air service  
4 just strictly due to the high cost of  
5 petroleum.

6 In the last chart I'll show on  
7 this impact is the impact on the U.S.  
8 workforce in the aviation industries. You can  
9 see, 2003, we were almost 470,000. And by the  
10 end of this year we expect to be under  
11 400,000. And this is almost all due to high  
12 fuel costs.

13 That's why access to sustainable  
14 renewable domestically produced fuel is so  
15 important to our industry, and why we are so  
16 committed trying to see that developed.

17 This last slide speaks to why we  
18 are so interested in domestically produced  
19 fuel. This chart shows, the blue line is what  
20 we have historically paid for fuel here in the  
21 U.S., for jet fuel. The red line indicates  
22 what our European competitors are paying for



1 jet fuel. And as you notice, at the very peak  
2 in July, when prices hit their highest, we  
3 were paying \$180 a barrel for jet fuel in the  
4 U.S. Our European competitors, because they  
5 were paying in Euros, were paying \$115; a \$65  
6 difference, putting us at a huge disadvantage  
7 to our international competitors.

8 So those are some of the economic  
9 reasons why we are so excited about Title IX,  
10 and about what the prospects the farm bill has  
11 for helping us develop this industry.

12 And the other thing that is highly  
13 motivating us is the change that we see coming  
14 in federal and international policy as it  
15 pertains to the treatment of carbon. If we  
16 are being realistic, I think we certainly in  
17 the airline industry are anticipating  
18 operating in a carbon constrained economy in  
19 the years going forward. Because that is such  
20 a huge component of our cost structure, we are  
21 very concerned about that. The Lieberman-  
22 Warner bill we estimate would have cost our

1 industry \$5 billion in the first year, with  
2 prices going up from there.

3 The European Union is in the final  
4 stages of approving an amendment to their  
5 emissions trading scheme to pull aviation into  
6 that scheme, so that U.S. air carriers that  
7 fly into Europe will have to pay a European  
8 special assessment for the carbon that they  
9 burn.

10 Obviously we are going to fight  
11 that, and there will be some litigation. But  
12 I think it indicates that that is the track we  
13 are going down.

14 So we are anticipating that, and  
15 obviously anything that we can do to swap out  
16 the fuel we are using now for lower carbon,  
17 more efficient fuel, is only going to inure to  
18 the benefit of us, and to the whole country.

19 So we do seriously believe that  
20 renewable fuels can be the game changer for  
21 the U.S. aviation industry in terms of supply  
22 and economics and environmental impact.

1                   That concludes my remarks, and  
2                   again, I do commend the presentation of Rich  
3                   Altman in a few minutes from CAAFI, and he  
4                   will give some specifics about what we and  
5                   CAAFI would like to see contained or like to  
6                   see for implementation steps for Title IX.

7                   Thank you.

8                   MODERATOR ORTIZ: Thank you, Mr.  
9                   Stroschein. Next is Mr. Richard Altman, and  
10                  will be followed by Mr. Bill Imbergamo.

11                 RICHARD ALTMAN, COMMERCIAL AVIATION  
12                 ALTERNATIVE FUELS INITIATIVE

13                 MR. ALTMAN: Thank you, and thanks  
14                 for the introduction, Ryan. And thanks to  
15                 Under Secretary Dorr and Deputy Under  
16                 Secretary Faulkner, who assisted in helping us  
17                 to gain some dialogue with the community.

18                 What I'd like to do is just go  
19                 through and explain who CAAFI is. And is my  
20                 picture up yet? Maybe I can get some help?

21                 MODERATOR ORTIZ: We're working on  
22                 it. If you could just go ahead and begin,

1 please, and we'll get it.

2 MR. ALTMAN: Just push arrow one?

3 Now we have a dark screen.

4 MODERATOR ORTIZ: If you could go  
5 ahead - if you could just begin your  
6 presentation, we'll be looking for it here.

7 MR. ALTMAN: Okay, all right.

8 Let me just explain to you who  
9 CAAFI is specifically. What we are is a  
10 coalition of airlines represented by ATA, and  
11 Ryan's organization, airports, the Airport  
12 Council International; the aerospace  
13 industries' association, which are the  
14 manufacturers of airplanes and engines; and  
15 the FAA Office of Environment and Energy.

16 Shall I try again?

17 The - now as mentioned previously  
18 we are very pleased that we did - were able to  
19 provide provisions in the legislation, and  
20 that the agriculture department are now acting  
21 on provisions to give equal consideration to  
22 projects that would perform innovative and

1           beneficial research on commercial development  
2           of renewable aviation fuels.

3                       So we appreciate that; we  
4           appreciate the aggressive action which you are  
5           taking, and the assistance of Deputy Under  
6           Secretary Faulkner's office in helping us to  
7           focus on that activity.

8                       You've heard both from Rentech as  
9           a supplier - here I am, okay. You have heard  
10          both from Rentech as a potential supplier to  
11          our industry, and from the airline users. And  
12          I wanted to just explain why we think - we  
13          understand there is no birthright in this  
14          legislation or in your implementation of it,  
15          for aviation. But I just wanted to point out  
16          that aviation we think is a very good partner  
17          for the Department of Agriculture, and for the  
18          agricultural energy producers, as we are  
19          really dependent on hydrocarbon-based fuels.  
20          There are no windmills; there is no geothermal  
21          energy that will help airplanes.

22                       We have a concentrated

1 distribution system which should not be  
2 underestimated in its importance. Eighty  
3 percent of the fuel goes to 35 locations in  
4 the aviation business, and that helps with  
5 deployment initially.

6 We have a single regulatory  
7 framework, governed by the Chicago Convention;  
8 it's actually international in nature, and we  
9 create a global market, and we don't have  
10 regulation by 50 different states per se.

11 We have accelerated our safety and  
12 worthiness certification targets, both for  
13 Fischer-Trope biomass blends similar to what  
14 Rentech is working on that you heard about  
15 earlier; and hydro-treated renewable jets,  
16 which are targeted for certification in 2010.

17 We have globally accepted air  
18 quality models implemented via the FAA MIT  
19 Environmental Center of Excellence that we  
20 would like to grow to fully accommodate  
21 biofuels.

22 We have aviation systems

1 engineering and R&D experience, and we have a  
2 small group of evaluators - that's what CAAFI  
3 is - and implementers that drive rapid  
4 consensus in the aviation industry. So I  
5 think we are very well suited to be an  
6 introductory party to what it is that the  
7 Department of Agriculture is attempting to do  
8 with Title IX. Oops.

9 We in as early as April began  
10 working with the renewable rural development  
11 area, in the partnership office, business  
12 development, on candidate tasks under the  
13 section. And we have identified five areas  
14 that we think are extremely important.

15 Production scale-up for engine  
16 certification: I'll go into that in a little  
17 bit more detail in the next chart.

18 Optimization of biomass and coal  
19 blend, co-production techniques. That's  
20 similar to what Rentech was talking about, and  
21 very important that we economically optimize  
22 how we bring biofuel to a coal-biomass blend.

1 And that is a lot of what will produce  
2 adequate quantities of production.

3 Optimize distribution to the  
4 customers, and use of sustainable biofuels in  
5 aviation. Very important with the pipeline  
6 companies that supply airports is to make sure  
7 that that works well.

8 Production scenario analysis: as  
9 you may know the aviation industry has a next-  
10 gen program to grow the aviation system long  
11 term in this country. Right now I'd have to  
12 say it's fuel challenged. Where is the fuel  
13 going to come from to support 2X or 3X growth  
14 in aviation?

15 So being able to predict with the  
16 help of Title IX what might be available to us  
17 and when will be important.

18 And then optimize indirect land  
19 use algorithms in the analysis. FAA is  
20 extremely well qualified to produce the output  
21 of aviation flight. But one of the key  
22 issues in well-to-wake is going to be indirect



1 land use. It's very much crop dependent, and  
2 we need help with some of the supply community  
3 to do that.

4 Next week we have a important  
5 mission. Just to go on the supply issue,  
6 specifically this chart indicates the level of  
7 supply that we need in order to fully certify  
8 a product. It's on the order of 250,000  
9 gallons, and that's bigger than lab supplies.

10 So the purpose of 9003 the way I  
11 read it, could very well be a key factor in  
12 loan guarantees, to provide the activity and  
13 support the activity that we are intending via  
14 the production of pilot plants.

15 The airlines I know will be  
16 helpful in moving that along.

17 Next week we have a meeting that  
18 Bill Hagee will speak to, and we will have a  
19 combined Air Force CAAFI group, advisory  
20 group, to put together a program. It includes  
21 manufacturers; it includes biofuels producers  
22 UOP, GE, Tysons, University of North Dakota,

1           NESTI, all of whom have supplied adequate fuel  
2           to the Air Force research lab to begin fit-  
3           for-purpose testing with key qualification  
4           criteria.

5                         But we will need to move toward  
6           pilot plants, so I think the USDA program fits  
7           in extremely well.

8                         So in closing I'd just like to  
9           point out to you that we have certainly from  
10          what you've heard from Ryan a compelling  
11          supply requirement. We are extremely  
12          organized and focused on early certification  
13          and development of our program. We have a  
14          favorable distribution model, an environmental  
15          LCA focus, which will be important to  
16          acceptance as we go forward. And we have  
17          implementation aligned with the farm bill,  
18          Sections 9003 and 9005 provisions, and we  
19          would like to continue to work with the  
20          offices of rural development, and with the  
21          assistance of Bill Hagee and others, be able  
22          to join with the BRDI and have you do in with

1 us as we go forward.

2 So thank you again.

3 MODERATOR ORTIZ: Thank you, Mr.

4 Altman.

5 Next is Mr. Bill Imbergamo, and

6 following that will be Mr. Robert Kozak.

7 BILL IMBERGAMO, AMERICAN FOREST & PAPER

8 ASSOCIATION

9 MR. IMBERGAMO: Thank you. Mr.

10 Under Secretary, other panelists, thank you

11 for the opportunity to present the statement

12 on behalf of the American Forest and Paper

13 Association.

14 AFPA is the national trade

15 association of the forest, pulp, paper board

16 and wood products industry. We produce

17 essential products from renewable and

18 recyclable resources that sustain the

19 environment. And our industry accounts for

20 about 6 percent of U.S. manufacturing, and we

21 rank among the top 10 manufacturing employers

22 in 42 states, with an estimated payroll

1 exceeding \$50 billion.

2 Our industry supports policy  
3 efforts to increase our nation's energy  
4 security. As you heard from one of my  
5 members, Boise, Inc., earlier, we are major  
6 producers of renewable energy at our  
7 facilities currently. Sixty-four percent of  
8 the energy used in AFPA member paper mills,  
9 and 74 percent of the energy in our solid wood  
10 products industry is already produced by  
11 carbon-neutral biomass. We are the largest  
12 producers of renewable biomass energy in the  
13 country, accounting for 82 percent of  
14 renewable biomass energy produced by all  
15 industries.

16 We produce and use renewable  
17 energy while adhering to a disciplined market-  
18 based standard of accountability that ensure  
19 that the wood fiber we use is grown and  
20 harvested in a sustainable manner.

21 Since 1995 all AFPA members must  
22 subscribe to the Sustainable Forestry

1 Initiative, or SFI, which sets rigorous  
2 forestry management standards that are  
3 reviewed by external partners from  
4 conservation groups and research  
5 organizations.

6 With over 226 participants and 156  
7 million acres of certified well managed  
8 forests, the SFI program ensures that  
9 America's forest and paper companies are  
10 committed to sustainable management.

11 Our historic commitment to  
12 renewable energy and sustainable forest  
13 management demonstrates that a balance between  
14 the two is both possible and necessary.

15 As has been pointed out, both the  
16 text of the farm bill and the statement of the  
17 managers indicate that the new bioenergy  
18 programs are intended to strike a similar  
19 balance between the needs of existing biomass  
20 users, and the need to develop additional  
21 sources of bioenergy.

22 We strongly support this goal. We

1 encourage USDA to make every effort to ensure  
2 that these programs are implemented to achieve  
3 it, and ensure that existing users of biomass  
4 and producers of bioenergy can participate in  
5 all of the new programs.

6 In particular we are concerned  
7 about three of the programs: biorefinery  
8 assistance, Section 9003; bioenergy program  
9 for advanced biofuels, 9005; and biomass crop  
10 assistance, Section 9011, which I will  
11 discuss.

12 As you know the biorefinery  
13 assistance program creates grants and loan  
14 guarantees for commercial scale biorefineries,  
15 both new and retrofitted. Both the grants and  
16 loan guarantees have a number of criteria that  
17 USDA has to take into consideration. For  
18 grants they will have to demonstrate that the  
19 project will have a positive impact on  
20 resource conservation, public health and the  
21 environment.

22 And for loan guarantees, the

1 Secretary has to analyze 10 factors, including  
2 whether or not the new technology will not  
3 have any significant negative impacts on  
4 existing manufacturing plants or other  
5 facilities that use similar feedstocks.

6 We urge USDA to evaluate product  
7 proposals under this program carefully under  
8 this criteria, and ensure that existing users  
9 are not severely harmed, and that the  
10 agricultural and civil cultural capability of  
11 the forest regions of the U.S. is not  
12 compromised.

13 There is widespread concern about  
14 the unintended consequences from biofuel  
15 production. Carefully reviewing proposals to  
16 ensure that they do not threaten natural  
17 resources while meeting the demands of  
18 existing biomass feedstock users will help  
19 address this concern in advance.

20 Ensuring that this review is  
21 meaningful and rigorous will help maintain a  
22 working balance between the resource needs of

1 existing biomass users, and the emerging needs  
2 of the cellulosic biofuels industry. So all  
3 produce the health, vitality and productivity  
4 of our agricultural and forest lands  
5 throughout the country as well as the  
6 economies in rural areas.

7 The joint statement of the  
8 managers specifically states that existing  
9 facilities, including wood product facilities,  
10 should be eligible for this program. And we  
11 would encourage you to take that into  
12 consideration as you receive proposals.

13 The bioenergy program for advanced  
14 biofuels similarly recognizes that with forest  
15 biomass there are competing demands. The  
16 gentleman from Boise mentioned the statement  
17 of the managers.

18 We urge USDA to take this caveat  
19 seriously and evaluate the impacts of this  
20 bioenergy program on other biomass users.

21 The potential of the farm bill  
22 programs, combined with the narrow definition



1 of renewable biomass in the Energy  
2 Independence and Security Act causes us great  
3 concern. It restricts eligibility for biomass  
4 based on forest types and successional stages,  
5 and disqualifies most fiber from public  
6 ownerships, which has the potential to focus  
7 all wood bioenergy demand on existing forest  
8 plantations which are a critical part of our  
9 fiber supply.

10 The biomass crop assistance  
11 program has already been mentioned. It is  
12 potentially a very large program that in  
13 addition to establishing project areas with  
14 sign-up for enrollment. There is up to a \$45  
15 per ton subsidy for storage, transportation  
16 and harvest of renewable biomass to a biomass  
17 conversion facility.

18 Again, as Mr. Grant noted, we  
19 believe that existing wood products facilities  
20 and paper mills, which as I noted are large  
21 bioenergy producers, should be eligible for  
22 payment under this program. We believe that

1 was the intent of the bill, and that this will  
2 encourage renewable energy production at  
3 existing facilities, and the development of  
4 bioenergy industry in harmony with the  
5 existing wood and paper products industry.

6 Thank you again for the  
7 opportunity to provide input on these  
8 important programs. We know that the USDA has  
9 heard a great deal about the need to balance  
10 food needs with new bioenergy production, and  
11 we believe that the model of sustainable  
12 management pioneered by America's forest  
13 products industry can be used as a guide to  
14 implement the bioenergy provisions to avoid  
15 unnecessary conflicts, and support development  
16 of new bioenergy sources in a rational manner.

17 Thank you very much.

18 MODERATOR ORTIZ: Thank you, Mr.  
19 Imbergamo.

20 Next is Mr. Robert Kozak, and will  
21 be followed by Mr. Denny DeVos.

22 ROBERT KOZAK, ATLANTIC BIOMASS CONVERSIONS

1                   MR. KOZAK: Good morning, thanks  
2                   for inviting me. My name is Bob Kozak. I'm  
3                   president of Atlantic Biomass Conversions.

4                   We produce enzymes to overcome  
5                   biomass recalcitrance in hemi-cellulose,  
6                   pectin and lignin biomass. And I'm also a  
7                   founding board member of Advanced Biofuels,  
8                   USA.

9                   In looking forward I hope that the  
10                  next administration whoever it might be will  
11                  take the comments that we are making today to  
12                  heart, and I hope this doesn't wind up on the  
13                  floor somewhere when the next administration  
14                  comes in.

15                  I also hope that once we get past  
16                  the continuing resolution in FY 2009 there  
17                  actually might be money appropriated for these  
18                  projects. But enough of that.

19                  In looking at Title IX of the  
20                  energy bill, the implementation of it, I think  
21                  there should be two overall considerations.  
22                  And the first one is that it should be used to

1       develop an American advanced biofuels industry  
2       that is sustainable both environmentally and  
3       economically. I think those are two key  
4       things. I know we've all talked about it, but  
5       I don't think it's a bad thing to say it  
6       again.

7                   I think the other thing to  
8       recognize in implementation of this is that  
9       USDA and DOE must recognize that the advanced  
10      biofuels technology that are commercially  
11      available - that there are a lot that are not  
12      commercially available today in 2008.

13                   There's lots of very good  
14      innovative ideas and conversion systems and  
15      new crops at the lab level, and I think it's  
16      important to use Title IX to get these to  
17      market as fast as possible.

18                   In terms of Section 9003, I  
19      suggested, because the program does have  
20      limited funds, that it should be focused on  
21      only third generation advanced biofuels. And  
22      here real quickly are my definitions.

1                   Just for clarify, first generation  
2           biofuels are the corn to ethanol and soybean  
3           biodiesel that we all know about that is  
4           commercial.

5                   Second generation are the  
6           cellulosic ethanol conversion systems. It  
7           seems that there is a fair amount of money out  
8           there right now. DOE has funded a number of  
9           projects, and from my hearing today that there  
10          are other projects out there. Therefore I  
11          think that money in this section should be  
12          focused on third generation.

13                   And some examples of third  
14          generation biofuels are are the advanced  
15          biojet fuels that were discussed earlier; the  
16          advanced bio-diesel fuels; gasoline  
17          substitutes, the so-called grassolines; and  
18          also advanced hemi-cell lignin conversion  
19          processes that produce intermediates.

20                   In terms of the selection  
21          criteria, I'd like to make the following  
22          recommendations.

1                   First off, especially for the  
2                   grant programs, that when - these are high  
3                   risk technologies, and USDA should not be  
4                   afraid of a number of these failing. Lots of  
5                   state programs that are involved in venture  
6                   type efforts recognize that and I think you  
7                   should do that as well. If you come up with  
8                   conservative criteria that ensure a high rate  
9                   of success, you get conservative technologies.

10                   Secondly, I think that because of  
11                   the limited amount of money pilot scale  
12                   facilities should be focused on more bang for  
13                   the buck, quite simply.

14                   Furthermore, another issue is in  
15                   biorefinery design. I hope that USDA-DOE is  
16                   not limited to the integrated biorefinery  
17                   concept that is out there. Some such things  
18                   as decentralized or hybrid models should be  
19                   considered as well.

20                   And the reason I bring this up is,  
21                   it's something we often forget in the  
22                   production of biofuels is that the

1 transportation of the biomass is one of the  
2 largest costs, and if we can come up with  
3 biorefinery designs that limit those costs, I  
4 think that is - I think that should be a key  
5 factor.

6 I just have two questions on the  
7 wording in the farm bill. First, what is  
8 demonstration scale? I guess those of us in  
9 the field are used to pilot or prototype. I  
10 think that needs some clarification.

11 And furthermore, what is a large  
12 scale market? In transportation fuels I think  
13 all markets tend to be rather large.

14 Just a couple of quick comments on  
15 Section 9005. In terms of selection factors,  
16 again, I think it should be limited to third  
17 generation biofuels only. Perhaps an extra  
18 concern for national defense issues in terms  
19 of selection. This gets into the jet and  
20 turbine markets.

21 And also I'd hope that there is  
22 some way that the payments could not only go

1 to the finished producers of the final fuel,  
2 but also intermediates. And anybody who is in  
3 the jet fuel development knows this, that you  
4 have 40 to 50 components going in, that there  
5 has to be some way that the producers at that  
6 lower level should benefit from this program  
7 as well.

8 Those are all my comments on that.  
9 I thank you for your time. I will be  
10 submitting final written comments.

11 MODERATOR ORTIZ: Thank you, Mr.  
12 Kozak.

13 Up next is Mr. Danny DeVos, and  
14 will be followed by Mr. Steve Flick.

15 DANNY DeVOS, POET

16 MR. DeVOS: Thank you. Under  
17 Secretary Dorr and distinguished panel  
18 members, I thank you for the opportunity to  
19 provide input in this very important energy  
20 title that we have before us.

21 As stated, I am Danny DeVos. I  
22 am the corporate finance director for POET.



1 POET currently has 26 ethanol facilities in  
2 the Midwest with a combined production  
3 capacity of approximately 1.5 billion  
4 gallons.

5 I will provide input on 9003,  
6 biorefining assistance; 9004, repowering;  
7 and then 9005, the bioenergy program for  
8 advanced biofuels.

9 Relating to biorefining  
10 assistance, POET believes that the  
11 biorefining assistance grant program will  
12 potentially benefit our project, BELL, which  
13 is a cellulosic pilot plant that will  
14 convert corn cobs and corn fiber into  
15 ethanol.

16 Project BELL is currently under  
17 construction and will be producing  
18 cellulosic ethanol before January 1st of  
19 2009.

20 Research conducted at Project  
21 Bell, along with research at POET's bench  
22 and lab scale facilities, will enable POET

1 to begin construction of Project Liberty, a  
2 25-million gallon cellulosic facility, in  
3 late 2009 or early 2010.

4 Of equal if not greater  
5 importance, under Title Section 9003 is the  
6 biorefining assistance loan guarantee  
7 program. POET believes that we will not be  
8 able to obtain loan funds to finance new or  
9 emerging technologies being adopted to  
10 produce advanced biofuels without loan  
11 guarantees.

12 Examples of biomass conversion  
13 facilities that would be supported by the  
14 loan guarantee program are: solid fuel  
15 boilers; cellulosic ethanol facilities;  
16 anaerobic digesters; oil extraction; and  
17 fractionation facilities.

18 These technologies will be  
19 adopted in both new and existing facilities.  
20 Because of this it is essential that  
21 implementation of the guarantee program  
22 includes the ability to work with facilities

1           that have existing debt.

2                       I will provide a couple of  
3           scenarios, because this same issue comes up  
4           under the repowering program.

5                       With that I will move onto my  
6           comments about repowering. The repowering  
7           assistance programs offers the opportunity  
8           for our existing ethanol production  
9           facilities to further reduce or eliminate  
10          the use of fossil fuels in our production  
11          process.

12                      At POET we do not believe there  
13          is a single solution to eliminating the use  
14          of fossil fuels. A combination of systems  
15          such as anaerobic digestion, solid fuel  
16          boilers, land-fill biogas, and wind towers,  
17          might be employed at a single production  
18          facility.

19                      Assuming a cost of \$9 per MMBTU  
20          of natural gas, the cost of natural gas on  
21          an annual basis at a 65 million gallon  
22          ethanol production facility are

1 approximately \$17 million. We estimate that  
2 the capital investment required to  
3 significantly reduce or eliminate the use of  
4 fossil fuels to be somewhere between \$1 and  
5 \$1.25 per gallon of production capacity.

6 At present lenders are only  
7 willing to lend approximately \$1 per gallon  
8 of production capacity for the basic ethanol  
9 production facility without any repowering.  
10 Therefore there is no financing available  
11 for repowering ethanol facilities without  
12 guaranteed loans to support the new  
13 investment.

14 And again these technologies will  
15 be adopted in existing facilities.  
16 Therefore it is again essential for the  
17 guarantee program to be able to work with  
18 existing debt.

19 Possible scenarios of how this  
20 might work are, and I will provide more  
21 information in my written comments in this  
22 area, but a producer obtains a \$20 million

1           guaranteed loan to add solid fuel boiler  
2           fueled by renewable biomass to an existing  
3           facility. The cost of the boiler project is  
4           \$25 million, so there is a room there for  
5           the limited guarantee at 80 percent.

6                       Prior to the solid fuel boiler  
7           project, there is remaining debt with first  
8           lien security on all the company assets of  
9           \$35 million. The original cost of the plant  
10          was approximately \$65 million.

11                      For the guaranteed program to be  
12          utilized, the guaranteed loan would only be  
13          able to obtain a first security lien  
14          position on the new solid fuel boiler  
15          assets, or be of adequate size to refinance  
16          the existing debt.

17                      If the existing debt is not  
18          refinanced, the guarantee could be provided  
19          a second lien on the existing company  
20          assets.

21                      Not only will the guaranteed  
22          loans be essential to achieve repowering, at

1 a minimum level, the authorization is also  
2 available to provide a payment for the  
3 energy replaced or produced. POET  
4 recommends a payment of \$3 per MMBTU. This  
5 payment is needed for approximately three to  
6 five years.

7 This is a program that we would  
8 be ready to implement today. We have a  
9 facility today where we are very close to  
10 bringing online a solid fuel boiler that is  
11 taking local wood waste from the area, and  
12 we are in the process of piping landfill gas  
13 to that facility.

14 And we, if we had the capital  
15 available, we would be able to implement  
16 current technologies we have available to  
17 implement this program. So we strongly urge  
18 you to implement and make this program  
19 available as soon as possible.

20 Now I would like to make comments  
21 on the bioenergy program for advanced  
22 biofuels, Section 9005. This program

1           authorizes the secretary to make payments to  
2           an eligible producer of advanced biofuels.

3           An advanced biofuel is defined as a fuel  
4           derived from a renewable biomass other than  
5           corn kernel starch.

6                        By definition the Secretary could  
7           enter into a contract with a producer of  
8           cellulosic ethanol or a producer of ethanol  
9           from starch, as long as the starch is not  
10          from the corn kernel.

11                      Furthermore, renewable biomass is  
12          defined as any organic matter that is  
13          available on a renewable or reoccurring  
14          basis. Therefore the Secretary is also  
15          authorized under this program to make  
16          payments for the utilization of landfill and  
17          sewer gas, and solid fuels such as wood  
18          chips, wood waste, corn stover grasses, and  
19          manure, as sources of energy.

20                      POET recommends that the payment  
21          be made based on gallons produced, or energy  
22          unit replaced, such as MMBTU, or kilowatt.

1                    Since the payment is made  
2                    directly to the producer of the advanced  
3                    biofuel, it should not have any impact on  
4                    eligibility for other tax credits that might  
5                    apply.

6                    It is strongly recommended that  
7                    the duration of the contract with the  
8                    Secretary match with the length of the loan  
9                    obtained to finance the capital investment  
10                   required to produce the advanced biofuel.  
11                   This will greatly enhance the ability to  
12                   obtain financing, since it provides some  
13                   stability to the cash flow.

14                   If Section 9005, the bioenergy  
15                   program for advanced biofuels, were used in  
16                   conjunction with Section 9004 for repowering  
17                   assistance, it would not be necessary to  
18                   make payments for energy replaced by  
19                   repowering from funds allocated to Section  
20                   9004, the repowering assistance program.

21                   Likewise, as long as there is a  
22                   separate payment made to producers of



1 cellululosic ethanol, payments made under this  
2 program could exclude payments for the  
3 production of cellululosic ethanol.

4 This program for advanced  
5 biofuels is a great opportunity to encourage  
6 rapid deployment of capital and investment  
7 in the production of the advanced biofuels.  
8 I encourage you to move quickly not only on  
9 this program but all these programs, because  
10 the greatest inhibitor we have today is not  
11 the technologies necessarily; it is more the  
12 capital that is not available to implement  
13 the technologies we have.

14 I thank you for the opportunity  
15 to provide input and would be open to any  
16 questions.

17 MODERATOR ORTIZ: Thank you, Mr.  
18 DeVos. Following Mr. DeVos, next up is Mr.  
19 Steve Flick, and after Mr. Flick is Mr.  
20 Michael Brower. Mr. Michael Brower will be  
21 closing out the Section 9003 biorefinery  
22 assistance, and we'll be moving into Section

1 9005, the bioenergy program for advanced  
2 biofuels, with - beginning with Ms. Brenda  
3 Robinson after Mr. Michael Brower.

4 Mr. Flick, thank you.

5 STEVE FLICK, SHOW ME ENERGY COOPERATIVE

6 MR. FLICK: Under Secretary Dorr  
7 and distinguished panel members, thank you for  
8 your time.

9 My name is Steve Flick, and I'm  
10 chairman of the board of the first 400-member  
11 producer coop in the United States of  
12 cellulosic energy. That's Show Me Energy in  
13 Missouri.

14 It's designed and built on  
15 science, and operated on economics, for bio-  
16 based products.

17 With the advent of high fossil  
18 fuel prices, bio-based products' time is now.  
19 Several renewable ideas have been talked  
20 about, but as an organization we on the ground  
21 are operating, providing jobs, reducing CO2,  
22 and creating rural opportunities.

1                   In the past years the coop has  
2                   learned a lot about growing, collecting,  
3                   harvesting, and processing biomass for fuel -  
4                   miscanthus, switchgrass - and is eager and  
5                   willing to assist USDA in developing programs  
6                   that will launch the United States into the  
7                   next cellulosic revolution and lessen our  
8                   dependence on fossil non-renewable fuels.

9                   We have put our blood, sweat and  
10                  tears into making this plant a reality, and we  
11                  are not asking for a handout, but a hand up.

12                 Show Me Energy cooperative is a  
13                 biorefinery, and we suggest to the USDA to use  
14                 broad definitions of biofuel and  
15                 biorefineries. If we as a society are moving  
16                 to a renewable future, why limit the  
17                 opportunities for the advancement of biofuels.

18                 Our definition of a biofuel is  
19                 straightforward: the final product of  
20                 commingling cellulosic fiber or plant oil, and  
21                 then chemically or physically altering the  
22                 biomass the yield a fuel.

1                   Show Me Energy is a replicable  
2                   model driven by producers' input and  
3                   ownership. Our biorefinery processes several  
4                   different feedstocks, from switchgrass to corn  
5                   stocks to wood. Our location allows us to use  
6                   wood fittings from the Ozarks, along with  
7                   native warm and cool season grasses, harvested  
8                   within Missouri's seed producing area.

9                   In fact, in the past we would have  
10                  burned this grassy biomass as there was no  
11                  market for its use now.

12                 Our recommendation to USDA is to  
13                 support processes that provide both  
14                 environmental conservation benefits on the  
15                 farm, and real energy applications allowing  
16                 the end user to displace coal or liquid fuels.

17                 USDA should support biofuels based  
18                 on net energy ratio, BTU value, and CO2  
19                 reduction.

20                 We also recommend the USDA that  
21                 the collection of feedstocks should be limited  
22                 to within 85 to 100 miles of the biorefinery,

1 and have strong but simple wildlife  
2 considerations.

3 Further, USDA should support  
4 programs that use industrial biomass sources,  
5 such as coffee, tea, grass clippings; that's  
6 what we're doing. By incorporating these  
7 inputs, the biorefinery reduces landfill  
8 space, and mitigates generation of methane.

9 All biorefineries should receive  
10 financial support to help this embryonic  
11 industry to get off the ground. Show Me  
12 Energy believes that a 20 to 30 percent target  
13 support of the fuel manufacturer will help  
14 facilitate this market approach.

15 Project proposals should be well  
16 organized, and should identify funding sources  
17 capitalized by regulatory or a non-regulatory  
18 institution.

19 In fact, one of the hardest  
20 accomplishments of our coop was receiving  
21 financing even though we had 70 percent equity  
22 ownership cash money in the bank. This has to

1           be easier, folks; and in today's market credit  
2           is key - strong private investment with cash  
3           in the bank to launch this industry.

4                        Size has no bearing.  Although  
5           Show Me believes that the biofuel industry  
6           will have a competitive economy of scale with  
7           smaller locally owned biorefineries.  Also the  
8           type of fuels should not have any bearing in  
9           determining what entity will receive payment.

10                      We would also like to comment on  
11           the participating end user size: it does not  
12           matter, from the smallest boiler in the local  
13           American Legion hall to the energy plant for  
14           this huge building.  I am willing to sell you  
15           some pellets to get a boiler started.  The  
16           building we are in now is the key.  Utilizing  
17           the fuel today.

18                      As a group we need to start  
19           cellulosic landscape now.  With 200 bushel  
20           corn farmers from Iowa, wheat farmers from  
21           Kansas, and grass farmers from Missouri.  
22           Producers will provide feedstock right away.

1                   But we should be thinking about  
2                   reducing our reliance on crops. Instead of  
3                   corn stocks, myofiber cereal straws, cool  
4                   season grass stock, native grass seed-  
5                   producing monocultures and newly established  
6                   polycultures can be used. Let's not reinvent  
7                   the wheel and tear up our existing farm  
8                   resources, but complement them.

9                   On the issue of BCAP if we make  
10                  too many restrictions on the rules for  
11                  producers to participate in the BCAP program  
12                  we will push back the development and growth  
13                  of cellulosic biomass industry many many  
14                  years. Producers must be able to participate  
15                  in this new industry no matter what the size  
16                  of their operation, because producer or  
17                  producer group participation in this new  
18                  agriculture production arena is a critical  
19                  element in moving the industry forward along  
20                  today.

21                  One other thing I'd like to share  
22                  with you, it is going to be very important for

1 us to focus on giving priority to projects  
2 that provide optional benefits to the local  
3 producers even after the removal of target  
4 support occurs. We need to assure that large  
5 entities are not able to come into a local  
6 region, through the advantage of government  
7 subsidies, and be able to drive down the long  
8 term value of bioenergy crops in an area.

9 Now I will share with this group -  
10 I have spoke many many places about our  
11 cooperative. And just the other day a lady  
12 seen me in the airport, and she said, you are  
13 with that farmer group that partnered with the  
14 University of Missouri Columbia and the  
15 University of Missouri Rolla, making  
16 cellulite. No, ma'am, it's cellulose.

17 (Laughter.)

18 Thank you for giving your time and  
19 attention, and thank you for holding this  
20 important meeting.

21 MODERATOR ORTIZ: Thank you.

22 Next is Mr. Flick - oh, you're Mr.



1 Brower. Thank you. Sorry, go ahead.

2 MICHAEL BROWER, MOSAIC FEDERAL AFFAIRS

3 MR. BROWER: I have a presentation.

4 MODERATOR ORTIZ: Okay, thank you.

5 If you could - are you able to start?

6 MR. BROWER: I'm Michael Brower

7 from Mosaic Federal Affairs. Thanks to Deputy

8 Secretary Faulkner, good to see you, and Mr.

9 Dorr, and all of y'all for being here and

10 holding this important meeting.

11 I'm acting for and on behalf of

12 some open loop and closed loop woody biomass

13 interests in New York, and the northeast. The

14 biorefinery in New York, Catalyst Renewables

15 Corporation, Renewables LLC, Tree Source

16 Solutions, Lyonsdale Biomass, U.S. Salt's

17 Woody Biomass Conversion Project, SUNY ESF,

18 which is a college of environmental science

19 and forestry in New York; the College of

20 Technology at Delhi; the SUNY Center for

21 Sustainable and Renewable Energy; Obrenegear,

22 and SUNY College of Agriculture's controlled

1 environment and agriculture project.

2 We need the programs in Title IX  
3 that are authorized by the act deployed as  
4 soon as you can get them deployed. And we  
5 urge USDA as you move this year and next year  
6 and years forward in the budget process that  
7 you hold on to the strategy that the farm bill  
8 holds, and make sure that the Congress gets  
9 the requests as they wrote them this year,  
10 because sometimes they change. Because this  
11 was a good strategic maneuver.

12 We are very pleased with what you  
13 have done with the biorefinery assistance  
14 program, because we figure it's a chance for  
15 us to stand up and say, that the northeast has  
16 been excluded generally, all things being  
17 equal, in biorefinery kinds of assistances,  
18 from the federal government. And we ask that  
19 you, as you make your rules and make your  
20 decisions, to ensure regional parity for New  
21 York and for the northeast in the application  
22 of woody biomass kinds of technologies.

1                   You know using a New York State  
2                   renewable portfolio standard required  
3                   sustainable forest management plan, Lyonsdale  
4                   Biomass, one of the interested parties here,  
5                   has been cited by New York State DEC as the  
6                   healthiest forest in New York State. This can  
7                   be done with forest biomass.

8                   And there is a lot of it; there is  
9                   a lot of it in the northeast; there's a lot of  
10                  it in the nation. There are 368 million dry  
11                  tons for the nation is one of the numbers that  
12                  is kicked around.

13                  Nationally we know that growth  
14                  rates exceed removals by 50 percent, and in  
15                  the northeast it's better than that, and in  
16                  New York State with huge forests, there is a  
17                  lot of rural New York north of the Tappan Zee  
18                  Bridge, New York State biomass growth exceeds  
19                  removals by 300 percent. That is because the  
20                  pulp and paper industry has virtually moved  
21                  out of New York State.

22                  We weren't as pleased with

1           repowering assistance. We felt that it was a  
2           subsidy to corporate agriculture to existing  
3           plants, and if there is a way within the  
4           statute, and it seems like there is a way  
5           within the statute, that you can expand the  
6           eligibility we strongly suggest that.

7                        You finally have got the right  
8           answer with advanced biofuels. Somebody has  
9           finally gotten one bill that comes and says,  
10          we can move biomass forward. So we ask that  
11          you ensure there is parity for thermal  
12          chemical and biochemical processes. WE ask  
13          you to ensure parity for advanced  
14          hydrocarbons. There are a lot of people who  
15          have been talking about jet fuel. There are  
16          other advanced hydrocarbons that are important  
17          particularly in the northeast like heating  
18          fuels and things like that. And for next  
19          generation alcohols as well.

20                       And we ask that USDA ensure that  
21          you put these plants where the demand is,  
22          because transportation is another big cost

1           always. And we say the northeast has a big  
2           argument for that.

3                       Rural energy for America: again we  
4           are only asking that you provide regional  
5           parity both in the audit programs so that you  
6           look at open and closed loop woody biomass as  
7           part of that mix on a regular basis; that you  
8           use local resources and expertise in the  
9           northeast, the northeast states research  
10          cooperative, part of the Forestry and Range  
11          Research Act of the Forestry Department; SUNY  
12          ESF circuit rider program; and that  
13          feasibility studies look at regional rural  
14          feeding districts using woody biomass.

15                      It will solve the issues where  
16          people are coming up with legislation for wood  
17          for schools and everything else.

18                      9006 grants in the northeast, all  
19          the applications that were made for 9006  
20          forest utilization grants were pretty much  
21          excluded. Part of it is that MSA exclusive  
22          requirements in the northeast because all the

1 metropolitan service areas are quite rural in  
2 the northeast as they exclude most grants.

3 We need to get our hands around  
4 the difference between federal lands and  
5 public lands, and understand that the public  
6 lands in the northeast are just as important  
7 as the federal lands. Adirondacks is bigger  
8 than a lot of parks.

9 Biomass crop assistance program:  
10 we want to ensure regional parity for short  
11 rotation woody biomass crops, willow, it's  
12 been supported by the department for a long  
13 time. It is finally moving forward. It is  
14 proven. It's been cofired, it's been fired,  
15 it's been gassified, it's been extracted, it's  
16 been catalyzed. It is a great resource for  
17 the northeast and other places.

18 This year Catalyst Renewables  
19 installed 600 acres of commercial willow.

20 This is a transition for  
21 university research to real operational  
22 adaptation by farmers. This isn't a Catalyst

1 program. They have leased to farmers, they  
2 have farmers planting this willow now as a  
3 crop on their farmland, and in New York  
4 unfortunately there is over 1.2 million acres  
5 of underutilized or abandoned farmland. We  
6 are not talking food crop land. Half of it  
7 was private dollars; half of it was federal  
8 and state dollars for this initial expansion.

9 This program is in fact still a  
10 demonstration. It has to be proved that it's  
11 operational. And so we need a mechanism which  
12 can enable farmers to take the leap from  
13 applying a three year or four year lead time  
14 crop into the ground, to bridge those kinds of  
15 risks, and deploy this crop for all of the  
16 energy and environmental reasons that are  
17 there.

18 We can't let this - and this is  
19 not a criticism of what conservation reserve  
20 is, but we wrote in the last farm bill, not  
21 this one, provisions for harvest for willow in  
22 the previous farm bill, and it was never

1           deployed because of rulemaking. And so we  
2           need to make sure that there is a straight  
3           pathway in rulemaking to be able to deploy  
4           these closed loop energy biomass products.

5                        Again, we have great projects in  
6           the northeast that are ready to go. We have  
7           plenty of transportation fuels that can be  
8           produced; we have plenty of heat and power  
9           that can be produced; these are being produced  
10          right now. But there is no unified federal  
11          support program in the northeast.

12                       Right now at Lyonsdale Biomass  
13          they are producing heat and power, and the  
14          only reason that Burroughs Paper exists in  
15          Lyonsdale, New York, is because they can sell  
16          them the steam from their plant for \$3 per  
17          million BTU as opposed to \$9 per million BTU  
18          of natural gas. That is the largest employer  
19          in the region.

20                       Thank you very much for your time,  
21          and you will be getting the written testimony.

22                       MODERATOR ORTIZ: Thank you, Mr.



1           Brower.

2                           That closes our section 9003,  
3           biorefinery assistance.

4                           Thank you.

5           SECTION 9005, BIOENERGY PROGRAM FOR ADVANCED  
6           BIOFUELS

7                           MODERATOR ORTIZ: And we are now  
8           moving into Section 9005, bioenergy program  
9           for advanced biofuels. And our first speaker  
10          would be Ms. Brenda Robinson, and following  
11          Ms. Robinson will be Mr. Manning Feraci.

12          BRENDA ROBINSON, ENVIRONMENTAL SOLUTIONS, INC.

13                          MS. ROBINSON: Thank you. Thank  
14          you for the opportunity to address the panel.

15                          Good morning, my name is Brenda  
16          Robinson, and I'm president and CEO of  
17          Environmental Solutions. We are headquartered  
18          in Richmond, Virginia. We are an 18-year-old  
19          women-owned business, and our business is the  
20          beneficial use of waste materials as - the use  
21          of agricultural and industrial byproducts to  
22          make new products.

1                   One of the major initiatives we  
2                   have is the manufacture of a proprietary  
3                   cellulosic fuel or biomass that is used for  
4                   industrial manufacturers to supply energy. We  
5                   have relieved the demand on the paper industry  
6                   for some of the demand of the forest products,  
7                   and we've doubled the BTU for some of the  
8                   boilers that the paper industry is using.

9                   We also provide environmental  
10                  consulting services, help companies evaluate  
11                  processes to both increase recycling  
12                  opportunities and minimize waste.

13                  ESI also provides a brokering  
14                  services for industrial waste to maximize both  
15                  economic return and beneficial use  
16                  opportunities.

17                  We employ more than 30 people, and  
18                  also own and operate the Sustainability Park  
19                  which is an old tobacco manufacturing company  
20                  that has been converted to an eco-industrial  
21                  park in a rural community south of Richmond  
22                  Virginia where businesses manufacture and

1 market environmentally sustainable products  
2 and services.

3 Contained within in the park's 140-  
4 acre boundary is infrastructure that includes  
5 a water treatment plant, a waste water  
6 treatment plant, and three modern boilers.  
7 These ready-to-use assets represent an  
8 opportunity for rapid commercialization of a  
9 bioenergy project.

10 We have tenants in the park that  
11 are consumers of energy, and industrial  
12 manufacturers seeking green energy solutions.

13 We are seeking partners to convert  
14 the boilers to an alternative energy using  
15 cellulosic or renewable energy crop, or a  
16 combination of the two.

17 This background is important,  
18 since I believe the components of the farm  
19 bill have some correlation with where I see  
20 our company heading.

21 This morning I'd like to share the  
22 opportunities we see, but more specifically

1 the barriers I believe may exist for companies  
2 like mine that wish to engage in the very  
3 active search for better, more environmentally  
4 appropriate alternatives for energy.

5 As a background representatives of  
6 our company have met with the USDA staff on  
7 several occasions to discuss opportunities at  
8 the Sustainability Park, and how we might  
9 participate in the government's intensive  
10 effort to establish alternative energy  
11 sources. To this point we have not applied  
12 for nor have we received any funding to  
13 support any initiatives at the park or ESI  
14 through the farm bill.

15 It's not because we don't want to  
16 however. Based on our discussions and our  
17 research the program provided for the farm  
18 bill are generally not designed to help small  
19 rural companies leverage their experience,  
20 knowledge and history to support either  
21 modifications to existing energy systems,  
22 expand unique energy alternatives; or to

1           participate or expand research activities.

2                       The available USDA funding is  
3           structured to pass through large institutions  
4           or companies; universities; or nonprofit  
5           organizations. The fast track solutions that  
6           small entrepreneurial businesses may offer are  
7           excluded as the challenges of partnering have  
8           severe barriers.

9                       We believe that as you begin to  
10          explore the most efficient manner to implement  
11          the 2008 farm bill, renewable energy programs,  
12          you should do the following.

13                      Target small business as a viable  
14          resource to introduce new technologies and  
15          energy solutions. The USDA and its government  
16          partners should encourage research in  
17          agriculture and energy that promotes  
18          partnerships between the private and public  
19          sectors, with focus and specific emphasis on  
20          supporting small business. The country was  
21          built on the shoulders of American  
22          entrepreneurs, and I believe that the

1 government has a responsibility to foster  
2 creativity not just in the public sector but  
3 the private sector as well.

4 Job creation and innovation is  
5 strongly tied to small business entrepreneurs.  
6 Let me give you an example. Tomorrow I will  
7 be headed for Virginia Tech in Blacksburg,  
8 Virginia. It is a trip that I am very excited  
9 about. Tech is a land grant university, and  
10 it has historic interests in agriculture and  
11 forest products. My company and Virginia Tech  
12 have much in common and my trip is designed to  
13 explore with Virginia Tech possible partnering  
14 opportunities. Should they exist, we would  
15 like to think that one or two potential  
16 projects would complement specific objectives  
17 of the farm bill. ;

18 I'm a business woman, and my  
19 perspective on an opportunity is different  
20 from Virginia Tech. I have to make payroll,  
21 pay taxes, develop strategy, and then  
22 implement those strategies to sustain my

1 company.

2 I have an urgency to commercialize  
3 technologies for those very reasons. I  
4 mention this, because while conversations and  
5 our dialogue will happen with or without the  
6 farm bill, specific opportunities that might  
7 have very real promise, whether they are  
8 related to rural energy self-sufficiency, crop  
9 biomass, or cellulosic biomass, may not occur  
10 without access to grants or other funding  
11 sources provided by the farm bill.

12 Perhaps I have customer demand for  
13 new solutions, and expertise capable of  
14 executing projects, but we seek research funds  
15 to move our ideas to market.

16 That is why I would encourage you  
17 to make application process efficient,  
18 establish a quick response protocol that  
19 supports small business; rural agricultural  
20 businesses; the world economy is fast and  
21 difficult, and I believe that the efforts like  
22 the farm bill should provide much needed

1 support to ensure businesses like mine can  
2 compete with other large institutions and  
3 organizations.

4 Let me mention one or two examples  
5 of what I see as a potential barrier. The  
6 forest biomass for energy program is a good  
7 step at deriving the use of sustainable  
8 biomass as fuel source. ESI has a great  
9 product that we already produce, and that is  
10 made from recycled wood. This is innovative  
11 and unique technology, and I believe it is  
12 easily transferrable to the low valued forest  
13 biomass. Our technology is proprietary; it  
14 has great promise, and we would like to be  
15 ensured that we engage in a substantial  
16 research and development effort with a public  
17 university for instance; and the technology  
18 could remain ours.

19 Decisions regarding the energy and  
20 whether and how to commit resources to  
21 research are generally challenge decisions by  
22 Fortune 500 companies. However, they are



1           considered in many cases life or death to  
2           small minority businesses like mine.

3                       I believe the USDA and various  
4           government agencies responsible for  
5           accelerating those programs contained in the  
6           farm bill, and specifically 9004, 9005 and  
7           9012, should prioritize funding in a manner  
8           that supports rural farmers and small rural  
9           businesses like ours, rather than allocating  
10          large dollars to a few projects that are only  
11          available to nonprofits, universities or large  
12          organizations. I would suggest that a portion  
13          of the farm bill be set aside to encourage  
14          small businesses, farmers, and rural  
15          entrepreneurs the opportunity to change the  
16          face of our energy landscape, and provide  
17          innovative technology solutions for  
18          alternative energy products.

19                      Thank you very much for the  
20          opportunity to speak.

21                      MODERATOR ORTIZ: Thank you. Next  
22          is Mr. Manning Feraci, and following Mr.

1 Feraci will be Ed Hegland.

2 MANNING FERACI, NATIONAL BIODIESEL BOARD

3 MR. FERACI: Good morning. Thanks  
4 for sticking around.

5 My name is Manning Feraci. I'm  
6 the vice president of federal affairs for the  
7 National Biodiesel Board.

8 And before I start I'd like to  
9 thank USDA for holding this public hearing  
10 today. We really appreciate the opportunity  
11 to weigh in with you, and let you know what we  
12 think about these important programs.

13 And likewise, we want to thank you  
14 for your continued support for biofuels.  
15 You've always been there, very supportive of  
16 advancing biofuels in the U.S. And I think  
17 it's good public policy, and our industry  
18 certainly appreciates everything you do.

19 Just for a little background so  
20 that everyone understands who NBB is, what we  
21 do, the National Biodiesel Board is the  
22 industry trade association for the U.S.

1           biodiesel industry. And we really do  
2           represent the whole waterfront of the  
3           biodiesel industry, everything from biodiesel  
4           producers to fuel marketers to feedstock  
5           providers.

6                           And as an industry we've  
7           experienced some pretty significant growth  
8           here in the past couple of years, and we are  
9           pretty proud of some of the things that we  
10          have done as an industry to integrate  
11          ourselves into the fuel supply. We are  
12          starting - what started off as a niche fuel is  
13          now becoming a mainstream fuel. We are seeing  
14          consumers are more comfortable with our fuel.  
15          We are seeing more acceptance with engine  
16          manufacturers. We are seeing dramatic  
17          improvements in fuel quality that are helping  
18          to increase biodiesel's penetration into the  
19          fuel supply.

20                           I'm going to be very brief,  
21          because we've got some people who are going to  
22          follow me up here that are going to provide a

1 little more meat on the bone, and I want you  
2 to hear from them.

3 But the main thing that we want to  
4 talk about today is Section 9005, the  
5 bioenergy program for advanced biofuels  
6 program.

7 Let me just give you some of our  
8 thoughts on how we'd like to see that program  
9 implemented.

10 You know this was a program that  
11 we were very supportive of its inclusion in  
12 the farm bill. We worked closely with the  
13 American Soybean Association to advocate this  
14 program's inclusion. We think it has a lot of  
15 merit and value in terms of helping out the  
16 U.S. biodiesel industry and subsequently  
17 getting the good public policy benefits that  
18 you have from having increased biodiesel use  
19 in the United States, displacing petroleum  
20 fuels.

21 With me today and some of the  
22 folks that are going to speak after me to kind

1 of highlight this, I mentioned at the  
2 beginning that we have a wide swath of folks  
3 from industry. What you are going to have is,  
4 you are going to have the chairman and vice  
5 chairman of our organization. One is a  
6 farmer; one is a significant fuel producer and  
7 marketer. You are going to hear from a small  
8 producer who's multi-feedstock, produces  
9 multiple feedstocks. You are going to hear  
10 from a soy producer. You are going to hear  
11 from the American Soybean Association.

12 And what you are going to hear  
13 from them is a consistent message about the  
14 way that we want to see this program  
15 structured to make it work best for everybody.  
16 And let me just briefly touch on that, and  
17 then again, I'm going to defer to the other  
18 speakers behind me to kind of let them fill in  
19 some of the blanks beyond that.

20 Under Secretary Dorr made an  
21 interesting comment in this opening comments,  
22 and I think it's relevant to what we are

1 talking about here. He said that in 2002 that  
2 farm bill really helped lay the groundwork for  
3 a lot of the programs that we are talking  
4 about there. And we really think that that  
5 applies on the bioenergy - on this bioenergy  
6 program. You know our - the people in our  
7 industries experienced with the previous CCC  
8 bioenergy program was mostly a positive one.  
9 In terms of the administration of the program,  
10 they were very supportive of it.

11 So I think if you look back at  
12 that program, there's going to be a lot there  
13 that we think is going to be helpful and  
14 useful in implementing the new program. But  
15 there are two things that we think are  
16 important that could be done to improve the  
17 program.

18 The first is adjusting the way the  
19 payments are made. Previously you had,  
20 everyone is aware that you had two levels of  
21 payment. You had one where you had a base  
22 production allowance, and then increased

1 production. And what you will see in written  
2 comments that we are going to provide is that  
3 we are suggesting that there be one level of  
4 payment for all gallons of production, which  
5 is another change. Previously it was based on  
6 feedstocks consumed, is what your payment was  
7 based on. We are advocating a system that you  
8 provide it on gallons produced. So if you go  
9 to a single level of payment, and you do it on  
10 gallons produced, we think it would make the  
11 program easier to administer; we think it will  
12 be easier for producers to take advantage of  
13 the program so it will make it easier for them  
14 as well; and we think it is consistent with  
15 sound energy policy in terms of it's going to  
16 be feedstock neutral and provide assistance to  
17 producers out there.

18 The second thing I'm going to  
19 point out is something that you guys have  
20 heard a billion times; maybe not a billion  
21 times, but you've heard multiple times this  
22 morning. But it's a sentiment that we echo:

1 implementing the program as timely as possible  
2 is an industry priority, using the authority  
3 that you have to get the funding that Congress  
4 provided, and beginning in FY `09 to have that  
5 available to have that available at the  
6 beginning of the fiscal year.

7 And then a timely implementation  
8 of the final rules so there is some certainty  
9 out there for providers and producers so they  
10 would know the benefit is coming.

11 You know we think that if you  
12 implement the program in this manner, these  
13 slight tweaks to the existing bioenergy  
14 program that you had previously, that you will  
15 have an effective program that will do a lot  
16 of good to help the U.S. biodiesel industry.

17 And speakers after me will get  
18 into some of the public policy benefits that  
19 you get from increased biodiesel use.

20 I'll be very candid: it's not  
21 going to be a silver bullet. It's not going  
22 to be the be-all and end-all for the U.S.



1 biodiesel industry. But the fuel's business  
2 is a high volume low margin industry, and to  
3 support that can come from this bioenergy  
4 program can go a long way in terms of making  
5 U.S. biodiesel producers more competitive in  
6 the marketplace.

7 So as we go forward, we look  
8 forward to working with you on this. We've  
9 always had a great relationship with USDA. We  
10 look forward to working cooperatively with you  
11 to get a program that is structured optimally  
12 to help our industry out.

13 With that I'll conclude my  
14 remarks. Thank you.

15 MODERATOR ORTIZ: Thank you, Mr.  
16 Feraci.

17 Next up Mr. Ed Hegland, and will  
18 be followed by Gary Haer.

19 ED HEGLAND, NATIONAL BIODIESEL BOARD

20 MR. HEGLAND: Thank you, and good  
21 morning.

22 I'd also like to echo the

1 sentiments of the previous speakers. Thank  
2 you very much for allowing us this public  
3 forum to address these issues.

4 My name is Ed Hegland, and as  
5 Manning said in his statement, I'm the  
6 farmer of the group. And I farm in Western  
7 Minnesota; I raise corn, soybeans and wheat.  
8 And I've been involved in the biodiesel  
9 industry I guess as a spokesperson and as a  
10 voluntary lobbyist through the Minnesota  
11 Soybean Growers Association. And now I've  
12 been working with the National Biodiesel  
13 Board, still a voluntary lobbyist. My wife  
14 says now I've been promoted to a full time  
15 volunteer. But I do manage to be home on  
16 the farm and do that sort of work.

17 Manning said he wasn't going to  
18 steal my thunder, but I think it's been  
19 stolen. He said a number of things I'm  
20 going to say, but I will reiterate and add  
21 to some of those.

22 The National Biodiesel Board is

1 the national trade association representing  
2 the biodiesel industry as the coordinating  
3 body for research and development in the  
4 United States. It was founded in 1992 by  
5 state soybean commodity groups who were  
6 funding biodiesel research and development  
7 programs.

8 Since that time the NBB has  
9 developed into a comprehensive industry  
10 association, which coordinates and interacts  
11 with a broad range of cooperators including  
12 industry, government and academia.

13 NBB's membership is comprised of  
14 state, national and international feedstock  
15 and feedstock processor organizations;  
16 biodiesel suppliers; fuel marketers and  
17 distributors; and technology providers.

18 We've seen tremendous growth in  
19 the biodiesel industry in the last number of  
20 years, over the last 15 years. In 2007 the  
21 industry produced 500 million gallons of  
22 biodiesel and is on pace to increase

1 production above these levels in 2008.

2 Today there are 171 plants in  
3 operation, with a capacity to produce more  
4 than 2.2 billion gallons of biodiesel and 60  
5 new plants under construction or expansion  
6 which will add another estimated new  
7 capacity of nearly 1.13 billion gallons.;

8 One of the reasons we are here  
9 today in front of this group of people is  
10 economic development and providing green  
11 jobs in rural America. In 2007 alone the  
12 U.S. biodiesel industry contributed over  
13 \$4.1 billion to the nation's gross domestic  
14 product, and supported 21,803 jobs.

15 In addition economic modeling  
16 suggests that a vibrant biodiesel industry  
17 will positively impact the U.S. economy in  
18 multiple ways. America's biodiesel  
19 industry will add \$26 billion to the U.S.  
20 economy between 2007 and 2012, assuming  
21 biodiesel growth reaches one billion  
22 gallons of annual product by 2012.

1                   Biodiesel production will create  
2                   a projected 38,856 new jobs in all sectors  
3                   of the economy, and additional tax revenues  
4                   from biodiesel production will more than pay  
5                   for the federal tax incentives provided to  
6                   the industry.

7                   Equally as important it will keep  
8                   billions of dollars in America that would  
9                   otherwise be spent on foreign oil.

10                  NBB urges USDA to implement the  
11                  bioenergy program for advanced biofuels in a  
12                  timely manner, as Manning had stated, and in  
13                  an equitable manner that provides payment on  
14                  all gallons of production.

15                  With is the CCC bioenergy program  
16                  important for U.S. biodiesel producers?

17                  This program provides CCC payments to  
18                  biodiesel producers to help offset the cost  
19                  of the feedstock used to produce biodiesel.  
20                  Feedstock costs make up more than 80 percent  
21                  of production costs. Over the past year  
22                  feedstock costs have doubled, reaching

1 record highs, and making it difficult to  
2 economically produce the fuel.

3 A CCC bioenergy program that  
4 provides payment on all gallons of  
5 production will help all U.S. biodiesel  
6 producers displace petroleum with clean-  
7 burning domestically produced biodiesel.

8 Thank you.

9 MODERATOR ORTIZ: Thank you, Mr.  
10 Hegland. Next is Mr. Gary Haer, and  
11 following Mr. Haer will be Bob Henry.

12 Mr. Haer.

13 GARY HAER, REG

14 MR. HAER: Good morning. I'm Gary  
15 Haer, I'm vice president of sales and  
16 marketing for Renewable Energy Group, and also  
17 serve as vice chairman of the National  
18 Biodiesel Board.

19 I'd like to thank the panel for  
20 the opportunity to address you this morning,  
21 and I want to talk today about the state of  
22 the biodiesel industry.

1                   First a little background on  
2           Renewable Energy Group. Renewable Energy Group  
3           is a leading company in the biodiesel industry  
4           that has helped build the U.S. biodiesel  
5           industry through construction of biodiesel  
6           plants, providing biodiesel production  
7           technology, and providing marketing and sales  
8           of biodiesel within the U.S. market, and in  
9           emerging markets for biodiesel.

10                   I think just from the state of the  
11           industry today, as was said previously, huge  
12           growth opportunities; a lot of emerging  
13           applications for biodiesel in the U.S. market.  
14           A very bright future. We contribute and  
15           support energy independence. We provide 3.5  
16           units of energy for every unit of energy used  
17           in the production and manufacture of  
18           biodiesel.

19                   From a lifecycle analysis we have  
20           the highest energy balance of any fuel  
21           produced in the United States today.

22                   We also provide climate benefits

1 in reduction of CO2 emissions, so our fuel is  
2 very well poised to help our nation contribute  
3 to climate benefits as well as energy  
4 independence.

5 Then as Ed mentioned, we also  
6 provide new jobs in rural America, an  
7 investment in rural America that is solely  
8 needed at a time when jobs are leaving rural  
9 America for higher paying opportunities in  
10 metropolitan areas, biodiesel and biofuels  
11 production in rural America provides new high  
12 paying jobs to those communities that are  
13 sorely needed.

14 So those are bright future  
15 opportunities for biodiesel, and things that  
16 we are contributing to the U.S. marketplace.

17 We have also received many  
18 positive market developments. Recently we  
19 passed a renewable fuel standard for biodiesel  
20 which will go into effect in 2009, which again  
21 helps provide a base for biodiesel demand in  
22 the U.S. marketplace.



1                   Our industry has a goal of 5  
2                   percent biodiesel usage in the diesel fuel  
3                   pool in the United States market. That  
4                   represents a three billion gallon opportunity  
5                   for biodiesel today.

6                   As Ed mentioned, our current  
7                   production capacity, or current production  
8                   level, is currently 500 million gallons. So  
9                   there is a huge growth opportunity for our  
10                  industry and a very bright and promising  
11                  future.

12                  However, with that positive  
13                  outlook, our industry is hurting severely. We  
14                  are faced with challenges in terms of high  
15                  feedstock costs. Feedstock costs contribute  
16                  or account for over 80 percent of the costs of  
17                  biodiesel in the marketplace today from a  
18                  manufacturing standpoint.

19                  Many of our biodiesel plants were  
20                  built with the idea or the working capital  
21                  needs and estimates that were more of an  
22                  historic nature in terms of feedstock costs.

1 Today feedstock costs are three times those  
2 historic levels that we have seen. So we have  
3 never seen feedstock costs at these high  
4 prices. It is a severe challenge to our  
5 industry and to our biodiesel producers. And  
6 while there is much research and development  
7 going on to look for alternatives to  
8 traditional feedstocks for biodiesel, and we  
9 believe that those will come into the  
10 marketplace, we are going to be challenged as  
11 an industry until those are commercialized and  
12 help bring more competitive feedstocks to us  
13 as an industry.

14 We also have a U.S. marketplace  
15 that is open to the world, and open to global  
16 production in biodiesel. Many of those  
17 overseas producers can come into the U.S.  
18 market and compete on a level playing field.  
19 Many of those overseas producers receive  
20 financial assistance, or financial incentives,  
21 for production of biodiesel by their home  
22 countries. So they are a challenge to us as

1 an industry, but it's a challenge that our  
2 industry is prepared to meet.

3 We also are facing a situation now  
4 where many of our plants have idled, and  
5 reasons for our plants to have - in our  
6 industry to have idle capacity today is  
7 because we are faced with a profit margin  
8 squeeze, obviously due to the high feedstock  
9 costs.

10 Our estimate is that currently 25  
11 percent of our capacity is being utilized  
12 today, and part of that is due to working  
13 capital constraints; part of that is due to  
14 inefficiencies of production. Our market in  
15 our industry was a young, growing and emerging  
16 market, characterized by small scale  
17 production. Some of that small scale  
18 production is inefficient. But there are ways  
19 for us to transition over to a thriving  
20 industry and a more competitive industry.

21 The result of this has been that  
22 our industry is going through a consolidation

1 and attrition phase, and we are challenged  
2 with an industry that has been weakened, and  
3 is currently on its knees. The bioenergy  
4 program for advanced biofuels will be helpful  
5 in that, and we are much appreciative as an  
6 industry.

7           However, the previous program that  
8 was available to our industry was much helpful  
9 as well, because it did help launch our  
10 industry. So we are grateful and appreciative  
11 for that assistance from USDA.

12           However, a short term program will  
13 not solve our industry's challenges. Our  
14 industry needs creative and innovative  
15 solutions to form a solid financial foundation  
16 for our industry to grow and flourish. Some  
17 of the ways that this may be met would be  
18 through direct loans to complete new capacity  
19 that is on the drawing boards today. This new  
20 capacity again is different from the capacity  
21 that came into the marketplace when it was an  
22 emerging market. This capacity is commercial

1 size and large scale, utilizing modern  
2 production technology that will give it more  
3 efficient production and manufacturing cost  
4 and allow us to be more competitive in the  
5 marketplace.

6 Loan guarantees may be another  
7 option. Long term low interest loans or  
8 financing would be a way that our industry  
9 could be assisted.

10 And also production loans for  
11 working capital for the reasons that I  
12 mentioned earlier.

13 In summary, our industry is very  
14 appreciative, and realizes and recognizes,  
15 that the bioenergy program for advanced  
16 biofuels will be helpful. However our  
17 industry needs a bridge for a long term  
18 solution. A long term solution that will  
19 enable the U.S. biodiesel industry to grow and  
20 flourish and meet the demand goals that we  
21 have as an industry.

22 A short term program is not going

1 to be the solution to our industry's  
2 challenges. And with our help and with a long  
3 term program, our industry will be poised to  
4 help our nation achieve its national energy  
5 independence goals.

6 And with that I thank you for the  
7 time to address you today.

8 MODERATOR ORTIZ: Thank you, Mr.  
9 Haer.

10 Next is Mr. Bob Henry, and  
11 following that will be Mr. Bill Horan.

12 BOB HENRY, AMERICAN SOYBEAN ASSOCIATION

13 MR. HENRY: Good morning. I'm Bob  
14 Henry. I am also a corn and soybean farmer  
15 from Robinson, Kansas.

16 I am here today on behalf of the  
17 American Soybean Association, as soybean oil  
18 is the primary feedstock used for U.S.  
19 biodiesel production, we have a strong  
20 interest in the implementation of Section  
21 9005, the bioenergy program for advanced  
22 biofuels.

1                   We are submitting full comments in  
2 writing, but I would like to address the major  
3 issues here today.

4                   We appreciate very much USDA rural  
5 development and rural business cooperative  
6 services holding this public meeting on the  
7 farm bill energy title programs, including the  
8 bioenergy program. The ASA and National  
9 Biodiesel Board work together to actively  
10 support the inclusion of the bioenergy program  
11 and the farm bill reauthorization. I believe  
12 our organizations were the most active  
13 supporters of the program, which is also  
14 evident by our presence here today.

15                   The soybean producer organizations  
16 played a large role in the development of the  
17 U.S. biodiesel industry. We continue to work  
18 closely together with our industry partners,  
19 and soybean producers and rural communities  
20 that we live in have benefitted tremendously  
21 from the new markets that have resulted from  
22 the biodiesel production.

1                   We are very proud to be  
2                   contributing to the effort to move our country  
3                   toward energy independence while boosting the  
4                   economy in rural America and improving the  
5                   environment.

6                   While U.S. biodiesel is being  
7                   produced from a diverse array of feedstocks,  
8                   and more second generation feedstocks are in  
9                   development, soybean oil is still used for up  
10                  to 80 percent of U.S. biodiesel production.  
11                  This market has helped to reduce the  
12                  historical surplus level of soybean oil stocks  
13                  and replace the markets lost as a result of  
14                  the shift away from trans fats.

15                  In addition the increased use of  
16                  soybean oil for biodiesel has created  
17                  increased supplies of soybean meal, a valuable  
18                  food and feed commodity.

19                  As you know the biodiesel industry  
20                  has grown tremendously over the past several  
21                  years. Production has increased from two  
22                  million gallons in 2000 to over 500 million



1 gallons in 2008.

2 While the industry has made  
3 tremendous strides in a short period, it is  
4 not without challenges. Due to feedstock  
5 costs, which represent over 80 percent of  
6 biodiesel production input costs, many  
7 producers have been forced to suspend  
8 operations, or operate at below margin.

9 We are also facing a well  
10 publicized investment in biodiesel production  
11 on the part of foreign countries such as  
12 Argentina, which uses differential export  
13 taxes as an export subsidy, and has an  
14 artificially lower cost of production.

15 We believe that the challenges  
16 facing the U.S. biodiesel industry can and  
17 will be overcome. In the near term feedstock  
18 costs have eased recently, and USDA's most  
19 recent crop estimates for 2008 project one of  
20 the largest soybean crops in history.

21 Beginning in 2009 there will be an  
22 expanded renewable fuel standard. That

1 includes a specific program for biomass-based  
2 diesel and other advanced biofuels.

3 This RFS for biomass-based diesel  
4 begins at 500 million gallons in 2009, and  
5 ramps up to one billion gallons in 2012.

6 Longer term we expect to see continued  
7 advances in agricultural productivity that  
8 will increase yields and efficiency. There  
9 could also be developments in second  
10 generation feedstocks that could further  
11 expand biodiesel production capabilities.

12 To realize that future potential  
13 and meet the objectives of greater U.S. energy  
14 independence, rural economic development, and  
15 improving the environment, we need this  
16 Section 9005 bioenergy program for advanced  
17 biofuels to support current domestic biodiesel  
18 production.

19 The bioenergy program should  
20 support necessary to make U.S. biodiesel more  
21 competitive, and ensure that the new RFS is  
22 filled with domestically produced biofuels.

1           As mentioned previously as an  
2           example, Argentina is poised to substantially  
3           increase their biodiesel exports. Argentina's  
4           use of DDTs provides an effective export  
5           subsidy to its biodiesel exports, and this has  
6           contributed to the tremendous expansion of  
7           Argentine biodiesel capacity production and  
8           exports that is underway.

9           Seed piracy and the lack of  
10          intellectual property enforcement has allowed  
11          Argentine producers to utilize seed  
12          technologies for free while U.S. farmers are  
13          paying for these very same technologies.

14          This seed piracy and lack of  
15          intellectual property enforcement allows  
16          Argentine soybean and soybean oil to be  
17          produced and marketed at an artificially lower  
18          cost.

19          Again the bioenergy program could  
20          provide the support necessary to make U.S.  
21          biodiesel more competitive, and ensure that  
22          the new RFS is filled with domestically

1 produced biofuels, further our goal of energy  
2 independence.

3 There are several important  
4 implementation priorities for the biodiesel  
5 industry that we believe will help ensure that  
6 the bioenergy program is utilized to its  
7 fullest extent, that is consistent with the  
8 congressional intent and national goals and  
9 energy independence, economic development and  
10 a cleaner environment.

11 Number one, timely implementation.  
12 First we urge you to move expeditiously to  
13 implement the bioenergy program and provide  
14 payments to U.S. biodiesel producers in fiscal  
15 year 2009. As you know the program provides  
16 \$55 million in mandatory funding for fiscal  
17 year 2009.

18 While the development of final  
19 program rules and regulations may be lengthy,  
20 we urge you to use your authority to ensure  
21 that the full \$55 million in program funding  
22 is delivered to eligible producers as early as

1 possible in 2009.

2                   Number two, payment on all gallons  
3 of eligible biodiesel produced. A top  
4 priority for U.S. biodiesel producers is to  
5 ensure that the bioenergy program payments are  
6 provided on all gallons of biodiesel produced.  
7 The previous bioenergy program was focused by  
8 statute on increased or incremental  
9 production.

10                   Based on extensive comments from  
11 biodiesel producers, USDA used its authority  
12 to provide some payments on base production.

13                   The statutory language for the bioenergy  
14 program has changed in this farm bill  
15 reauthorization to eliminate the reference to  
16 increase production and report language was  
17 included that indicates the intent of Congress  
18 that the program support existing advanced  
19 biofuel production as well as encourage new  
20 production.

21                   This principle is important to  
22 ensure competitive fairness among biodiesel

1 producers that have maintained production  
2 during the industry's difficult economic  
3 times.

4 If the program were to focus or  
5 provide a higher level of payment on increased  
6 production, it would provide a competitive  
7 advantage to new producers, or those who  
8 restart after having suspended production.

9 Those who have maintained their  
10 biodiesel production should not be punished or  
11 put at competitive disadvantage. We believe  
12 that providing payments on all gallons of  
13 biodiesel produced will also have an added  
14 benefit in simplifying the program rules.

15 Again I want to reiterate our hope  
16 that the bioenergy program supports biodiesel  
17 to the fullest extent possible; that the  
18 program be implemented in a timely manner; and  
19 that payment be provided on all gallons of  
20 eligible U.S. biodiesel produced.

21 I want to thank you for your  
22 consideration on these comments. We look

1 forward to working with you and your staff to  
2 implement the bioenergy program quickly and  
3 effectively.

4 We also appreciate your interest  
5 in the long-term rural development and  
6 renewable energy answers of our nation, and  
7 the economic viability of the biodiesel  
8 industry. We stand ready to work with you on  
9 any ideas or concerns that you may have to  
10 ensure U.S. soybean farmers and U.S. biodiesel  
11 producers continue to increase our  
12 contribution to renewable energy, energy  
13 independence, rural development, and the  
14 environmental goals of this nation.

15 Thank you.

16 MODERATOR ORTIZ: Thank you, Mr.  
17 Henry. Next is Mr. Bill Horan, and following  
18 him will be Mr. Jim Conway.

19 BILL MORAN, REG

20 MR. MORAN: Good morning. I also  
21 want to thank the committee today for your  
22 time in allowing us to offer some comments.

1 I have worked with many of you in the past,  
2 and it's a pleasure for me to be back today.

3 I am also a farmer from northwest  
4 Iowa, corn and soybeans, and I always like to  
5 start my remarks with an illustrated story or  
6 joke. And my wife told me yesterday that that  
7 would be totally inappropriate for this  
8 meeting. So I said, but Pam, you know, I'd  
9 like people to remember me as kind of a wit.  
10 And she said, well, you're half way there.

11 (Laughter.)

12 You're going to have to keep up.  
13 I'm going to end up with the same  
14 recommendations to the committee that you've  
15 heard from the three previous speakers. But  
16 my job here today as I see it is to explain  
17 why that's important.

18 About two years ago four partners  
19 and myself started a company, the Biodiesel  
20 Group, and we proceeded to build four  
21 biodiesel plants in Iowa, 30 million gallon  
22 plants, around the state. We went out and



1 raised \$85 million of equity, most of it came  
2 from ma and pa checkbooks. People were very  
3 interested for all the reasons you've heard  
4 this morning in investing in renewable energy,  
5 particular biodiesel.

6 Well, our plants that we built  
7 contracting through REG are multi-feedstock  
8 plants, and it was - we are very thankful that  
9 we did that because we have been surviving on  
10 animal fat. Of course we all started out  
11 soybean oil, but as the soybean oil prices  
12 skyrocketed, we were able to convert to animal  
13 fats. We've run all the vegetable oils in our  
14 plants; we've run all of the animal fats. So  
15 we have the economic numbers on all the  
16 feedstocks.

17 The reason that it is important in  
18 this margin environment we have today, for a  
19 few cents at a time, is that we are in a  
20 business that is going to be converting now  
21 back to more and more veg oils as we move into  
22 the winter months, because we you know because

1 of the coal flow properties.

2 As we do that the margins are  
3 going to get tighter and tighter, because of  
4 the high veg oil prices. So it's been  
5 critical in a low margin business all summer.  
6 It's going to get more critical as we go  
7 through the winter. We need this program  
8 implemented to bridge us into next summer.

9 We think that the animal fat  
10 acceptance has been tremendous. We've even  
11 seen animal fats being used now in Europe. So  
12 the quality is there. We can produce the  
13 fuels. We have multiple feedstock, and we're  
14 going to be able to go forward with this  
15 bridge legislation to the bright future that  
16 Gary Haer and others talked about down the  
17 road.

18 We have coming corn oil from DDGs;  
19 we're very excited about that. Virtually  
20 every ethanol plant in the Midwest is  
21 installing equipment to take the corn oil from  
22 the DDGs. That is going to be a great

1 feedstock for us. It's a difficult feedstock  
2 to work with, but we have developed the  
3 technology to do it. So we need to bridge to  
4 that. The equipment is just now being  
5 installed. It will be next year before much  
6 of that oil is on the market; so that's why it  
7 is very critical.

8 I want to end my comments with  
9 anecdotal evidence. When we started this  
10 business we thought people would want to  
11 invest in renewable fuels to make some money.  
12 And we did when people wrote out their checks,  
13 we did hear some of that. But more often than  
14 not we heard people say, I'm writing this  
15 check out of our savings account because I  
16 want to lessen our dependence on foreign oil.  
17 This is money that is going to stay in the  
18 United States.

19 And I'm very pro-military. I'm an  
20 ex-Marine, and a Vietnam veteran. But we had  
21 one lady write out a fairly sizeable check.  
22 And she said to us, if this check stops one

1 more flag-draped coffin from coming into this  
2 country I'm happy. I don't care if I make a  
3 dime on renewable fuels.

4 So my point is, the renewable fuel  
5 business is much bigger than the economics,  
6 and environmental benefits, the rural  
7 development; all of those things are great.  
8 But the American people understand that the  
9 renewable fuel industry is much bigger and  
10 much more important than that.

11 And so that's why I think that the  
12 work that you are doing here today, and the  
13 implementation of this legislation, is one of  
14 the greatest things we can do for our country.

15 Thank you.

16 MODERATOR ORTIZ: Thank you, Mr.  
17 Horan.

18 Next is Mr. Jim Conway, and  
19 following Mr. Conway will be Mr. Race Miner.

20 JIM CONWAY, GRIFFEN INDUSTRIES

21 MR. CONWAY: Good morning.

22 Biofuels are a very important segment of any

1 future energy policy of the United States, so  
2 I appreciate your interest, Under Secretary  
3 Dorr and the entire panel, to discuss the  
4 benefits that renewable energy produced  
5 basically by rural America can have for our  
6 entire country, and how to best implement the  
7 new energy program passed by the 110th  
8 Congress, and I am particularly interested in  
9 Section 9005 of the farm bill.

10 As I said, I am Jim Conway. I am  
11 vice president of sales and marketing for  
12 Griffen Industries. And currently I also  
13 serve as the secretary of the National  
14 Biodiesel Board.

15 Griffen Industries is a family-owned  
16 company, located in Northern Kentucky, that  
17 has been in business for over 65 years. We  
18 currently have over 1,400 employees that  
19 operate 23 plants in 15 states. Mostly in  
20 rural communities like Dublin, Georgia; Butler  
21 in Russelville, Kentucky; Bastrop, Texas, and  
22 Hampton, Florida, to name a few.

1                   All of our operations recycle food  
2 waste. We do collection and processing of  
3 bakery waste, collection and processing of  
4 waste cooking oil from restaurants. And last  
5 year we processed over one million tons of  
6 food waste that might have ordinarily gone to  
7 landfills.

8                   In addition since 1998 we have  
9 operated a biodiesel production plant full-  
10 time. In fact we were the fourth biodiesel  
11 production plant opened in the United States.

12                   The head of the Griffen family,  
13 back in the early '90s, had a vision of how  
14 important biofuels would be to the long term  
15 energy security of our country. He invested  
16 the family money in building a plant to  
17 produce biodiesel, which at that time was a  
18 product very few people had even heard of.

19                   During those early years of  
20 production, our company operated this plant at  
21 an economic loss. But we were committed to  
22 the concept of renewable fuels, and dedicated



1 old program that I feel need to be addressed  
2 to make it even more relevant effective in  
3 supporting continued development of advanced  
4 biofuels of which biodiesel is perhaps the  
5 leading producer.

6 I would encourage the department  
7 to formulate a payment plan that treats and  
8 pays all gallons equally. I emphasize gallons  
9 produced as opposed to pounds of feedstock  
10 used as a simpler and more effective program.

11 The biodiesel industry must have  
12 equal treatment of all produced gallons to  
13 ensure fair and sustained growth of both the  
14 industry and all of its participants. As  
15 you've heard higher feedstock prices have  
16 affected all producers equally. And the  
17 program, this program, is designed to offer  
18 some relief from those costs.

19 And while we want to encourage new  
20 and expanded production, we cannot exclude  
21 older and more established producers from this  
22 type of assistance. By treating all



1 production equally, the program will ensure  
2 the optimum return that the program was  
3 designed, to the energy consuming public.

4 I would also encourage the  
5 department to ensure that the entire funded  
6 amount, \$55 million for 2009, be fully  
7 disbursed to advanced biofuels industries. If  
8 the supplemental \$25 million is funded, it too  
9 should be fully disbursed again on gallons  
10 produced.

11 And hopefully these funds will be  
12 made available for gallons produced beginning  
13 October 1st of this year, or at least  
14 retroactive to that date if at all possible.

15 Contrary to the early formats  
16 contained in the old bioenergy program, I also  
17 think it is important that all feedstocks be  
18 treated equally with the new program. As  
19 production has increased, and as further  
20 increases are envisioned, it is paramount that  
21 all feedstocks capable of producing quality  
22 biodiesel should be utilized. The cost of

1 various feedstocks are closely related. As  
2 one goes up in price, they all tend to follow.

3 All producers should be afforded  
4 the opportunity to access the feedstocks which  
5 are the most favorably logistically available  
6 to them, without regard to how they may be  
7 treated by this program.

8 Uniformity of treatment of all  
9 feedstocks is imperative to the continued  
10 success of this important program.

11 Again, I wish to thank Under  
12 Secretary Dorr and the entire panel for your  
13 time today, and for allowing me to share these  
14 brief comments with you. I know that your  
15 task is a huge one, but I am confident that  
16 you will produce a program that is both fair  
17 to all producers, and is effective in  
18 promoting energy security for the American  
19 public.

20 I thank you. I will be submitting  
21 written comments to follow these up, and if  
22 there are any I would be happy to answer any

1 questions.

2 Thank you.

3 MODERATOR ORTIZ: Thank you, Mr.

4 Conway.

5 Up next will be Mr. Race Miner,  
6 which will get us very very close to the noon  
7 hour, and we may not have another speaker, and  
8 we'll be breaking for lunch, and I'll have a  
9 few comments before we go. So.

10 MR. MINER: Is that a hint to be  
11 brief?

12 MODERATOR ORTIZ: No, do what you  
13 got to do.

14 MR. MINER: I will be anyway.

15 MODERATOR ORTIZ: Ten minutes,  
16 that's all you've got.

17 MR. MINER: I don't need that much  
18 time.

19 RACE MINER, KEYSTONE BIOFUELS, INC.

20 MR. MINER: Again, thank you for  
21 allowing me to be here. It is a privilege.

22 My name is Race Miner. I'm the

1 president, CEO and founding partner of  
2 Keystone Biofuels.

3 Keystone Biofuels is a biodiesel  
4 producer located in south central  
5 Pennsylvania. We are about 2-1/2 hours north  
6 of Washington, D.C.

7 We started producing biodiesel  
8 from soybean oil in March of 2006, and since  
9 that time as everybody has testified here  
10 earlier, soybean stock prices have gone from  
11 18 cents a pound at that time to over 70 cents  
12 a pound now. We of course have started  
13 looking for other feedstocks, and we were  
14 successful in that endeavor. We have a multi-  
15 feedstock facility. We have the ability to  
16 produce biodiesel from a range of feedstocks,  
17 and we have successfully done that, going from  
18 soybean oil to chicken fat to pork fat to now  
19 most recently to used cooking oil.

20 We have grown our facility from  
21 initially a half a million gallon plant per  
22 year to now being able to produce 20 million

1 gallons of biodiesel a year. And part of that  
2 was with the help of the Rural Development  
3 community, and their loan guarantee program  
4 that we took advantage of in 2007.

5 Starting production in 2006, we  
6 weren't really able to take advantage of the  
7 existing 2002 farm bill, CCC program. But it  
8 still played a pivotal role in our decision-  
9 making process as to whether or not to build  
10 a plant. Unfortunately, we just weren't able  
11 to take advantage of it because of  
12 construction delays, and that particular  
13 program exhausted.

14 We believe very strongly that the  
15 CCC program of the 2002 farm bill as well as  
16 the one now proposed in the 2008 farm bill, as  
17 well as the federal excise tax credits and any  
18 local and state incentives that you are able  
19 to receive are investments, very sound  
20 investments, in what I see as a post-petroleum  
21 era, and the place that we are headed, and the  
22 place that we need to be investing our money.

1                   We think it's a very viable  
2                   investment, and we applaud rural development  
3                   and USDA for their efforts.

4                   We would just like to in closing  
5                   reiterate those points that have been made by  
6                   my colleagues before me, which is, the CCC  
7                   bioenergy advanced biofuels program, if it is  
8                   to be implemented, we ask for swift timely  
9                   implementation, on a per gallon basis, per  
10                  gallon produced domestically, U.S. biodiesel  
11                  refiners, regardless of feedstock. We think  
12                  that program would be easily implemented. The  
13                  most efficient and effective way to implement  
14                  it, not only from the department's standpoint,  
15                  but also from a producer's standpoint as well.

16                  And we have - or actually I have  
17                  submitted a letter that highlights all these  
18                  things as well.

19                  So thank you all very much for  
20                  your time.

21                  MODERATOR ORTIZ: All right, great.  
22                  I think we have Mr. J.C. Bell - are you back

1           there, Mr. Bell? We've got some extra time,  
2           Mr. Bell. But you have 10 minutes.

3           J.C. BELL, BELL BIOENERGY

4                         MR. BELL: Thank you. I'm J.C.  
5           Bell with Bell Bioenergy. I am grateful for  
6           the opportunity to be here to speak to tell  
7           you about our company and our concerns in the  
8           new farm bill.

9                         Bell Bioenergy is in the  
10          development process of manufacturing long  
11          chain hydrocarbons from biomass. We use a  
12          bacterial process to break down the biomass  
13          directly into hydrocarbon.

14                        The hydrocarbon molecules are  
15          commonly referred to as petroleum, or oil. We  
16          are not talking a biodiesel; it is actually  
17          oil.

18                        We are to the step now of building  
19          seven production facilities that are going on  
20          six Army bases, and one Defense energy support  
21          center installation.

22                        During the next year we will be

1 working through Defense energy to certify that  
2 all of the products that we are producing are  
3 drop-in equivalents, and meet all ASTM  
4 standards for hydrocarbon fuels, whether it be  
5 gasoline, diesel, jet fuel, or home heating  
6 oil.

7 In the new farm bill what concerns  
8 us the definitions of a biofuel. We are  
9 chemically and from a molecular standpoint  
10 indistinguishable from fossil fuel, but we  
11 manufacture it from renewable biomass. We are  
12 to the point, one year from now, a year in  
13 October, we will begin the construction of  
14 full scale production facilities after all of  
15 our products have been certified.

16 In 18 months we will be to the  
17 point of manufacturing 500,000 barrels of what  
18 we call bio-crude per day, each of those  
19 barrels being 42 gallons, and go from there.  
20 In two, two and a half years, we'll be up to  
21 a million barrels a day.

22 We want to make sure that the



1 funding is there for the assistance to build  
2 those plants to make sure that farmers,  
3 cities, and other people have the capability  
4 to supply the biomass necessary. We need that  
5 feedstock.

6 Now a great deal of what we are  
7 using now in the demonstration facilities are  
8 waste components, whether it be corn stover or  
9 straw as I've heard, or city inert biomass,  
10 instead of going to a landfill, we take that  
11 inert biomass and turn it into oil.

12 We are very concerned that  
13 everyone be treated exactly the same. If  
14 there are credits to be issued for biodiesel  
15 or ethanol then our production should be  
16 covered in that.

17 We are looking at a very sizeable  
18 development, and are currently in the process  
19 of creating those plants.

20 The other thing that concerns us  
21 is the ability to help farmers with long term  
22 planning on additional biomass that they can

1 grow specifically for fuels, whether it be  
2 biodiesel or a product like ours.

3 The farmers out West, the farmers  
4 in south Georgia where we are from, need that  
5 additional income. And we can't have them  
6 making a decision, do I grow and energy crop  
7 or do I grow a food crop. WE have to plan for  
8 both.

9 And I thank you for the  
10 opportunity to speak, and I hope you have a  
11 good lunch.

12 MODERATOR ORTIZ: Thank you, Mr.  
13 Bell.

14 We will stop here so we can break  
15 for lunch. When we come back we'll hear from  
16 Mr. Mark Rokala. He's the last speaker under  
17 Section 9005, bioenergy program for advanced  
18 biofuels. And then we'll continue on with the  
19 rest of the agenda.

20 We will be starting promptly at  
21 1:00 o'clock so make sure that you are back  
22 here. I want to reintroduce the panel so we

1           can properly thank them with our applause for  
2           their time.

3                           And here today of course we had  
4           Under Secretary of Rural Development Thomas  
5           Dorr. But sitting in for him is Douglas  
6           Faulkner, who is deputy under secretary for  
7           rural development.

8                           We also have Joseph Glauber, chief  
9           economist from the office of the chief  
10          economist; Gary Mast, deputy under secretary,  
11          natural resources, and environment; Floyd  
12          Gaibler, deputy under secretary, farm and  
13          foreign services; Rob Hedberg, special adviser  
14          to research in education and economics; and  
15          Karl Simon, director of compliance and  
16          innovative strategies division, office of  
17          transportation and air quality environmental  
18          protection agency, and we also had John  
19          Mizroch, a principal deputy assistant  
20          secretary, office of energy efficiency and  
21          renewable energy, Department of Energy.

22                           Thank you so much, panel. And

1           we'll be breaking for lunch a little early,  
2           but please be back at 1:00. We'll start  
3           promptly at 1:00.

4                           (Applause.)

5                           (Whereupon at 11:55 a.m. the  
6           proceeding in the above-entitled  
7           matter went off the record and  
8           resumed at 1:06 p.m.)

9                           MODERATOR ORTIZ: Good afternoon,  
10          everyone. We are going to continue with the  
11          public meeting.

12                          We have to close out a couple of  
13          things. We have the panel back. Just to make  
14          sure everyone knows who the panel is, we have  
15          Doug Faulkner, Deputy Undersecretary for Rural  
16          Development. We have Joseph Glauber, chief  
17          economist, Office of the Chief Economist; Gary  
18          Mast, Deputy Under Secretary, Natural  
19          Resources, Environment; Floyd Gabler, Deputy  
20          Under Secretary, Farm and Foreign Services.  
21          We've got Rob Hedberg, special adviser,  
22          research, education and economics, and I

1 believe later we might have Karl Simon,  
2 director of compliance and innovative  
3 strategies division; and possibly John  
4 Mizroch, principal deputy assistant secretary,  
5 Office of Energy Efficiency and Renewable  
6 Energy, Department of Energy.

7 So that is our panel for this  
8 afternoon. We are going to have Mark Rokala.  
9 He is the last presenter for Section 9005,  
10 bioenergy program for advanced biofuels. And  
11 then we'll be moving on into Section 9007,  
12 rural energy for America program. And Mr.  
13 Craig Metz will be the first presenter right  
14 after Mark Rokala.

15 If the presenters would please  
16 speak into the mike so that all the audience  
17 can see. And this is again being taped, so  
18 that they can pick up what you have to say and  
19 present here.

20 So we'll start right away. Mr.  
21 Rokala.

22 MARK ROKALA, NATIONAL SORGHUM PRODUCERS

1 MR. ROKALA: Thank you.

2 First I'd like to thank Rural  
3 Development for the opportunity to provide  
4 comments on the expanding rural renewable  
5 energy opportunities provided in the new  
6 authorities of the energy title of the Food  
7 Conservation and Energy Act of 2008.

8 My name is Mark Rokala, and I'm  
9 here on behalf of the National Sorghum  
10 Producers.

11 I'd like to provide some  
12 background on sorghum's role as an advanced  
13 biofuels feedstock, before I provide some  
14 comments on Section 9005, the energy program -  
15 the bioenergy program for advanced biofuels,  
16 and Section 9011, the biomass crop assistance  
17 program.

18 Grain sorghum is known as a water  
19 sipping crop, as it uses one-third less water  
20 than other starch sources. More importantly,  
21 the plant goes dormant in times of drought  
22 rather than dying as most other annuals and

1 perennial plants do. When it does rain the  
2 plant reinvigorates itself and starts growing  
3 again.

4 Because of these drought traits,  
5 sorghum is grown in the semi-arid regions of  
6 the United States, from South Dakota to Texas,  
7 and west of the Mississippi to California.

8 Also there has been a recent Texas  
9 A&M study, research, that shows that foraged  
10 sorghums produce the same amount of silage  
11 using one-third to one-half the amount of  
12 water as corn silage.

13 The sorghum industry is very  
14 excited about the fact that sorghum is known  
15 as a water-sipping crop, and we believe that  
16 that characteristic and trait expands that  
17 ethanol belt outside the traditional ethanol  
18 belt, and also expands the cellulosic ethanol  
19 belt.

20 As I mentioned the sorghum  
21 industry is very excited by its role as a  
22 feedstock. Grain sorghum produces the same

1 amount of ethanol as a bushel of corn.  
2 Currently almost a quarter of sorghum is used,  
3 processed by an ethanol plant in the sorghum  
4 belt.

5 Next, sweet sorghum, a close  
6 cousin of grain sorghum, is used in India,  
7 Brazil, and the Philippines as a feedstock in  
8 ethanol production. Sweet sorghum's sugar  
9 content is almost identical to sugar cane.  
10 And many of you may know sweet sorghum as  
11 sorghum molasses, the old biscuits molasses.

12 Finally forage sorghums has a  
13 brown midrib, which is a lower percentage of  
14 lignin per ton, which means it can be  
15 processed into ethanol faster; it's easier to  
16 break down than other cellulosic feedstocks.

17 Also, brown midrib foraged  
18 sorghums is high in cellulose, which is an  
19 important feedstock needed by the cellulosic  
20 plants, processing plants, and yields a higher  
21 level of sorghum - or ethanol per ton.

22 Also just to give you a scope of



1 the scale of the sorghum industry, there are  
2 eight million acres of grain sorghum and  
3 foraged sorghums planted in the United States.  
4 There is a significantly smaller sweet sorghum  
5 population that is raised in Kentucky and  
6 Tennessee.

7 About eight million acres, the  
8 increase in the corn crop this year was 10  
9 million new acres, so that gives you kind of  
10 a concept of the size of the sorghum industry.

11 Related to the energy title  
12 comments, the sorghum industry also worked  
13 very hard to expand the scope of the energy  
14 title in the farm bill. We worked with our  
15 champions up on the Hill to make sure sorghum  
16 was included and would be eligible for  
17 programs like 9005 and 9011.

18 First we encourage USDA and DOE to  
19 similar chronologies in their biofuels  
20 programs. As they implement these programs,  
21 we want to make sure that there is not a lot  
22 of confusion between the two programs. And as

1 a producer group representing a potential  
2 feedstock, we ask that the energy title be  
3 implemented in a timely manner.

4 We understand some of the  
5 constraints that USDA and DOE are working  
6 with. However if you look at the importance  
7 of the cellulosic industry and the starch-  
8 based industry as providing domestically  
9 produced transportation fuel, we hope we can  
10 get this done in a timely manner, and get  
11 these programs working quickly.

12 Regarding Section 9005, the  
13 bioenergy program for advanced biofuels, the  
14 sorghum industry encourages USDA to include  
15 all advanced biofuel feedstocks in the  
16 program. As mentioned earlier, we also worked  
17 with our colleagues up on the Hill to move  
18 that program forward.

19 A majority of the sorghum is  
20 produced in states that also produce oil, and  
21 the ethanol industry has only recently started  
22 to find sorghum as a starch base. Including

1           sorghum in the program will help expand the  
2           ethanol industry, outside the traditional corn  
3           belt, and further develop the ethanol industry  
4           in the sorghum belt. And sorghum right now is  
5           the second largest feedstock, in terms of  
6           starch-based feedstock.

7                         Also the sorghum industry is well  
8           positioned to utilize Section 9011. Abengoa  
9           Bioenergy is building a commercial scale  
10          cellulosic demonstration belt in the heart of  
11          the sorghum belt, and they are focusing on  
12          using crop residues in that area. There are  
13          about 600,000 acres of CRP land. There is  
14          about 300,000 acres of dry land wheat. There  
15          is about 250-300,000 acres of dry land  
16          sorghum, and about 100,000 of corn.

17                        Obviously what USDA does in terms  
18          of moving this program forward has a huge  
19          impact on land use in that area. We encourage  
20          USDA to look at ways to make land that is  
21          coming out of CRP eligible, make it work so  
22          that they can be used to produce a biomass

1 feedstock.

2 As you look at that plant, they  
3 are needing 100 truck loads of bone dry  
4 material a day. That is a lot of material  
5 from the sorghum standpoint. They are very  
6 interested in making sure there is the  
7 resource, and the research and technology to  
8 make sure that the harvesting, storage,  
9 transportation of biomass works well.

10 In conclusion, at a recent USDA  
11 research education economics conference,  
12 highlighting sorghum's biofuel potential,  
13 Chinese officials discussed with the sorghum  
14 industry their desire to use sorghum as a  
15 feedstock for their biofuels industry. The  
16 Chinese are very excited about the drought and  
17 heat tolerance of sorghum. We hope the USDA  
18 recognizes these same traits as the Chinese,  
19 and works to include all sorghums in the  
20 energy title programs.

21 Thank you.

22 MODERATOR ORTIZ: Thank you, Mr.

1 Rokala. That closes out the Section 9005  
2 bioenergy program for advanced biofuels.  
3 SECTION 9007, RURAL ENERGY FOR AMERICA  
4 PROGRAM

5 MODERATOR ORTIZ: The next  
6 presenters will be addressing Section 9007,  
7 Rural Energy for America Program. Mr. Karl  
8 Metz.

9 MR. METZ: Think of the baseball  
10 team, the Mets.

11 MODERATOR ORTIZ: Okay, Metz. Mr.  
12 Metz, and after Mr. Metz will follow Ms. Karen  
13 Edwards. Thank you.

14 CRAIG METZ, ENSAVE, INC.

15 MR. METZ: Thank you very much.  
16 And I do have a presentation.

17 Well, first I want to say thank  
18 you very much to Rural Development, and also  
19 to the distinguished panel, for being present,  
20 and giving Ensava the opportunity to comment.

21 My name is Craig Metz. I'm the  
22 CEO of Ensava. And we have a history of

1           partnering or working with USDA on the energy  
2           title in the farm bill both in formulating  
3           policy and to implement program goals in the  
4           field.

5                       Areas we have assisted USDA in  
6           energy issues include in 2003 Ensave partnered  
7           with MacTech Federal Programs to assist USDA  
8           with establishing guidelines, regulations, and  
9           a delivery model for the loan portion within  
10          the energy title of the 2002 farm bill.

11                      Ensave also has recently worked  
12          with NRCS to develop the standards for the  
13          audits, and working through the American  
14          Society of Agricultural and Biological  
15          Engineers to be able to help those audit  
16          standards be developed.

17                      We also are part of the committee  
18          working with ASABE to be able to edit those  
19          standards, and to be able to work together.

20                      We also have worked with Rural  
21          Development and NRCS to be able to communicate  
22          a little better between the two agencies when

1 we wanted that NRCS wanted energy as a stated  
2 purpose, and we are looking into the farm  
3 energy audits, that we wanted to make sure  
4 that they were communicating with rural  
5 development, to be able to make sure that the  
6 two programs met or if there were any  
7 differences, to make sure that those  
8 differences were coordinated and addressed.

9 We also have made several comments  
10 presenting information about agriculture  
11 energy efficiency to USDA leaders and with  
12 field staff.

13 We also were invited to speak, by  
14 Chief Knight back in 2005, for the energy  
15 management dialogue about farm energy audits,  
16 and the availability of farm energy auditors  
17 throughout the United States.

18 I'd like to just set the table  
19 here a little bit, that Ensave, the reason why  
20 we are here, we are not an eligible entity to  
21 do farm energy audits, although we have had  
22 this long history, we and also working with

1 energy efficiency programs, and doing over  
2 1,500 audits throughout the United States, we  
3 are not an eligible entity.

4 And Ensave has recognized that  
5 there has been a need, in order to be able to  
6 get qualified energy auditors, data  
7 collectors, out in the field. And what we did  
8 is, we partnered with the National Association  
9 of Resource Conservation Development Councils  
10 as well as the National Association of  
11 Conservation Districts, and we have begun the  
12 training of those folks to be able to be data  
13 collectors in the field to be able to do the  
14 energy audits.

15 And in this partnership and the  
16 delivery of this infrastructure, which is well  
17 underway, the training has been completed in  
18 Alabama, Maryland, Oregon and Texas. And  
19 Ensave will be providing training in the  
20 following states in the coming months:  
21 Montana, Colorado, New Jersey, Florida,  
22 Vermont, Virginia, California and Arkansas.



1                   Four of those states will be  
2                   through conservation innovation grants; one  
3                   will be through the state energy office; and  
4                   two will be through other funding  
5                   opportunities.

6                   We also have a statewide program  
7                   in Texas where, through the office which is  
8                   operated by the Texas comptroller of public  
9                   accounts, and the state energy conservation  
10                  office, this program will support REAP by  
11                  generating more energy audits, and therefore  
12                  more REAP applicants from a state which  
13                  historically has had low participation in  
14                  rural development energy programs.

15                  In addition to providing farm  
16                  energy audit data collection training,  
17                  performing energy audits and promoting the  
18                  program, Ensave worked to ensure Texas rural  
19                  development could have multiple opportunities  
20                  to promote REAP and provide grant application  
21                  training to interested farms, rural small  
22                  businesses, and grant packaging consultants.

1           Within the title itself, there is  
2           a section at the bottom of this particular  
3           title, D, that states that any similar entity  
4           determined by the Secretary may be able to  
5           conduct audits. And what we are asking for is  
6           that language be added to the rulemaking that  
7           reads that a corporation or rural small  
8           business that has demonstrated the ability to  
9           conduct agricultural energy audits be added.

10           Ensave has developed an  
11           infrastructure. We have developed this  
12           infrastructure through this process, and  
13           hopefully those states that have not had a lot  
14           of applications will be participating in this  
15           program.

16           We also have over 17 years of  
17           experience in the agriculture energy field.  
18           Ensave has also conducted work with several of  
19           our program partners, but if we are not - if  
20           this language is not added to the rule, then  
21           we will have to partner with an entity that  
22           perhaps has the authority or the ability to do

1 the audits - or I should say, has the  
2 authority to do the audits, but maybe not the  
3 ability, which would add another layer of what  
4 we would consider bureaucracy, or an  
5 inefficient process.

6           Ensave has shared its knowledge  
7 with several agencies of USDA in regards to  
8 energy issues, and we would like to continue  
9 to do so. And Ensave, as Under Secretary Dorr  
10 had said in the beginning about the quiver  
11 analogy, that we believe that we are an arrow  
12 that fits well within that quiver, and we  
13 believe that as a leader in agricultural  
14 energy efficiency that we certainly should be  
15 able to do our work.

16                           And that is it. Thank you.

17                           MODERATOR ORTIZ: Thank you, Mr.  
18 Metz.

19                           Next presenter is Ms. Karen  
20 Edwards, and Mr. Charles Kubert will follow  
21 Ms. Edwards.

22                           KAREN EDWARDS, BIOBASED PRODUCTS COALITION

1 MS. EDWARDS: Thank you.

2 I appreciate the opportunity to  
3 testify on behalf of the Biobased Products  
4 Coalition. This coalition was formed last  
5 year with a group of small, medium and large-  
6 sized companies all producing biobased  
7 products in the United States, as well as  
8 allied organizations primarily representing  
9 the feedstocks that go into biobased products.

10 All of these groups care about the  
11 biobased provisions that were first created in  
12 the 2002 energy title of the farm bill, and  
13 work to enhance those provisions in the new  
14 farm bill.

15 First I would like to thank in  
16 particular Under Secretary Dorr who has been  
17 a long time champion of biobased products, and  
18 he gets it about the benefits that they do,  
19 and has supported USDA's implementation of the  
20 bio-preferred program, that now the new farm  
21 bill has carried further the vision for  
22 biobased products at the federal level to

1 encourage markets for biobased products  
2 throughout the nation, and has even renamed  
3 the program of course to the biobased markets  
4 program.

5 We see that as a real positive  
6 vision, because in fact Midwest governors,  
7 counties across this country, and the private  
8 sector are recognizing the benefits of  
9 biobased products ranging from carpet backing  
10 to spray-foam insulation to absorbents and  
11 many, many more for their potential to what we  
12 call the three Es, benefit the environment,  
13 energy security, and of course, the rural  
14 economy.

15 And we thank Dr. Glauber, your  
16 group, for providing an assessment in the U.S.  
17 biobased products market potential and  
18 projections through 2025.

19 Biobased products manufacturers  
20 gathered in July in Washington, D.C, and we  
21 appreciated that Agricultural Secretary  
22 Schafer came and met, and as a business

1 entrepreneur himself he also gets it about the  
2 challenges and the opportunities that face  
3 these biobased products industries as they try  
4 to market into a really traditional  
5 marketplace oftentimes.

6 So they see great potential, but  
7 they also see great obstacles. And that's  
8 where we have three points that we would like  
9 to communicate about how USDA rural  
10 development can assist the biobased products  
11 industry in this country.

12 Number one, please continue, and  
13 thank you for your past, the support that you  
14 have provided to the overall USDA efforts to  
15 implement the general bio-preferred program.  
16 USDA Rural Development has supported that  
17 effort, and in particular biobased products  
18 companies need that label. They need the  
19 whole program implemented soon, and they  
20 really need that label, because it is key to  
21 their marketing efforts to all sectors, not  
22 only just to the government but to the private

1 sector as well.

2 So if USDA can move forward on  
3 that, you can continue to be supportive, that  
4 is greatly appreciated.

5 Number two, I will relate to you a  
6 story of one of our biobased products  
7 manufacturers just this week. This is a small  
8 business in a rural area that is economically  
9 facing a lot of hardships. And this little  
10 company has been a startup, and they have  
11 created jobs.

12 Just this week they contacted  
13 their state rural development office and said,  
14 hey, we're a small business. We're producing  
15 this product. It's got great environmental  
16 benefits. Is there any program within rural  
17 development that would help us in our company  
18 including our marketing efforts? And the  
19 response to them was, wow, it sounds like you  
20 have a great product. But unfortunately, your  
21 small business doesn't really fit into any of  
22 our existing programs.

1                   So therefore the biobased  
2           companies would benefit from a carve out or  
3           something that specifically assists them in  
4           participating in USDA rural development  
5           programs so they can individually and  
6           collectively market and do other marketing  
7           efforts that will help their industry.

8                   Number three, the biobased  
9           companies can play a great role in the rural  
10          energy for America REAP program and similar  
11          efforts. There are biobased spray foam  
12          insulations; there are roofing products that  
13          can greatly contribute to the energy  
14          efficiency of existing or retrofitted  
15          facilities. Some of the biobased products can  
16          fit into ways to energy.

17                   So we would encourage you to look  
18          for ways to encourage the people who do get  
19          REAP program funds and other types of programs  
20          like that to use biobased products in their  
21          overall effort.

22                   And because, let me just conclude



1 and say there are so many biobased products  
2 out there, already USDA has designated 33  
3 biobased product categories that they estimate  
4 cover 2,741 different products. And there are  
5 many more to be designated, and there are many  
6 more products coming online.

7 Therefore, we look forward to  
8 working with you, because with so many  
9 different products it's hard to specify any  
10 one program. But we would look forward to  
11 working with you as you can identify  
12 opportunities to advance this young industry  
13 that is competing against some tough  
14 traditional products.

15 Thank you.

16 MODERATOR ORTIZ: Thank you, Ms.  
17 Edwards.

18 Next up to present is Mr. Charles  
19 Kubert. And following Mr. Kubert will be Ms.  
20 Martha Noble.

21 CHARLES KUBERT, ENVIRONMENTAL LAW AND POLICY  
22 CENTER

1                   MR. KUBERT: Thanks. I feel like  
2 I'm coming up for the high school play from  
3 the back of the room here.

4                   I'm Charley Kubert. I'm with the  
5 Environmental Law and Policy Center in  
6 Chicago.

7                   The Environmental Law and Policy  
8 Center is the largest energy advocacy group in  
9 the Midwest Great Plains area. We are based  
10 in Chicago, with satellite offices in Des  
11 Moines, Sioux Falls, and now Jamestown, North  
12 Dakota.

13                   ELPC has been active in the  
14 design, passage and implementation of the  
15 energy title in both the 2002 and the 2008  
16 farm bills, beginning in about the year 2000.  
17 And since that time we have built a national  
18 ag energy network, composed of producer  
19 groups, rural development organizations,  
20 sustainable ag advocates, and many others.  
21 We've got several thousand people on our farm  
22 bill interest list to keep them informed of

1           what's going on with farm bill energy issues.

2                       And we've developed a close  
3           partnership with USDA, some would argue  
4           perhaps too close, in the implementation of  
5           the Section 9006, now known as the REAP  
6           implementation. In fact, I think we actually  
7           coined the term, rural energy for America  
8           program, in a brainstorming session a year or  
9           two ago.

10                      Can we go back one, please?

11           Forward.

12                      To give you a sense of our close  
13           partnership, several of you may have seen the  
14           brochure on the left. This is an American  
15           success story. What we did in this  
16           publication was, we used it primarily to  
17           highlight some of the early successes out of  
18           the Section 9006 program, projects that were  
19           successful, projects that were saving farmers  
20           money through energy efficiency, or generating  
21           them revenue through renewable energy  
22           projects.

1                   We've circulated several thousand  
2                   copies of this publication. It's gone  
3                   everywhere from folks on the Hill to potential  
4                   applicants to the program to give them some  
5                   sense of how the program has been used in the  
6                   past.

7                   We've also developed a very -  
8                   fairly widely tracked website, [farmenergy.org](http://farmenergy.org).  
9                   This has provided both important resources for  
10                  potential applicants to the REAP program, as  
11                  well as trying to keep people up to speed both  
12                  in farm energy policy issues, and ag energy  
13                  events around the country.

14                  The bulk of my remarks is going to  
15                  be primarily on the Section 9007 program,  
16                  which has been enormously successful by any  
17                  account. It's funded almost 2,000 projects  
18                  since its inception in 2003 in all 50 states,  
19                  and we are pleased and excited that the  
20                  funding is going up from what had been \$23  
21                  million a year in the first four years of the  
22                  program to almost \$50-60 million over the next

1 four years.

2 I am also going to speak as time  
3 allows on the Section 9011 program, the BCAP  
4 program, which again I think is a tremendous  
5 opportunity to fund pilot projects to grow,  
6 transport, and process and utilize biomass.

7 And what is exciting about that is  
8 at least at this point there is no statutory  
9 funding cap on the program.

10 The guiding principles as we see  
11 them for the REAP program, one is really to  
12 identify opportunities to save and produce  
13 energy, through energy technical assistance.  
14 Now energy technical assistance was something  
15 that was included in the 2002 farm bill as a  
16 separate section but was never actually  
17 funded. This time we've got some funding for  
18 the program.

19 Second is really to improve the  
20 quality of the Section 9007 applicants through  
21 feasibility study support. This is often for  
22 many renewable energy projects, this is often

1 the hardest money to come by. And setting  
2 aside 10 percent of the money for a  
3 feasibility study will help farmers get, and  
4 rural small businesses get through those  
5 initial feasibility study thresholds.

6 And third, I think it's important  
7 that the REAP program going forward supports  
8 projects of all sizes, technologies, and  
9 markets throughout the country. Although we  
10 have had projects in all 50 states, as you  
11 will see a little bit later, we have had  
12 enormous concentration of REAP funding in just  
13 two or three states, and we'd like to see that  
14 spread out a little bit more.

15 In terms of specific  
16 recommendations on the energy technical  
17 assistance program, we want this to possibly  
18 include infield technical assistance for farms  
19 that are trying to figure out ways to reduce  
20 both diesel and fertilizer use in the field,  
21 either through the implementation of precision  
22 agriculture or other technologies.

1                   We think it's important that the  
2                   grantees of this program deliver both direct  
3                   audit services such as Ensave provides as well  
4                   as workshops and training to essentially  
5                   spread the word on the opportunities for  
6                   energy efficiency.

7                   It's important, this is a rural  
8                   development program, it's important that the  
9                   energy technical assistance support rural  
10                  small businesses as well as farms and  
11                  agricultural-related businesses.

12                  We believe the program should  
13                  support multi-year grants to ensure local  
14                  program continuity and success. One-year  
15                  grants are really not going to do it for a  
16                  program that is trying to sow the seeds of  
17                  energy efficiency over a broad group of  
18                  eligible farmers.

19                  Finally we think the grant  
20                  eligibility should extend to other nonprofits  
21                  as long as they have access to energy  
22                  professionals.

1                   And last we think that the  
2           preference for this grant program should go  
3           toward states without existing ag energy  
4           technical assistance programs, to essentially  
5           bring them up to the speed of some of the  
6           states that have had successful state funded  
7           or university funded programs.

8                   In terms of feasibility studies,  
9           again as I've emphasized, good feasibility  
10          studies make for good projects, and they  
11          derail bad projects before they get too far  
12          along. The REAP statute calls for 10 percent  
13          of the money set aside for these studies. We  
14          believe that the consultants that people use  
15          should be independent of the technology  
16          vendors. The feasibility study grants should  
17          not affect eligibility for 9007 project  
18          grants. In other words, although it's nice  
19          for someone to have had a 9007 feasibility  
20          study grant, it's not essential for applying  
21          or shouldn't give them preference in getting  
22          9007 capital grants.



1                   And finally we believe that the  
2                   applicant cost share on this program should be  
3                   about 50 percent, similar to the value-added  
4                   producer grant program.

5                   In terms of the actual REAP  
6                   grants, as you can see by this bar chart, what  
7                   I mentioned before is that a huge share of the  
8                   Section 9006 funding in the last five years  
9                   has been concentrated in just a few states.  
10                  Over 45 percent of the money has gone to  
11                  Minnesota and Iowa. While we think that those  
12                  two states have done tremendous work and  
13                  outreach on this program, we would like to see  
14                  more of the work - we'd like to see a lot of  
15                  the money spread around much more around the  
16                  country.

17                  In addition the REAP legislation  
18                  now calls for 20 percent of all funds set  
19                  aside for grants under \$20,000. As you can  
20                  see from this graph, from the next graph, over  
21                  the first four years of the program, less than  
22                  7 percent of the dollars have gone to projects

1 of that size.

2 So USDA is going to have to make  
3 some major changes in order to ramp that  
4 number up, or to try to reach the goal of 20  
5 percent funding there.

6 Reaching this goal is going to  
7 require the energy technical assistance  
8 program that the legislation provides for, far  
9 expanded USDA outreach, and far more  
10 streamlined simplified applications.

11 I know that the agency has done  
12 tremendous work the last couple of years to  
13 make this program accessible to smaller  
14 applicants. And it's showing. In the last  
15 year, 2008, 14 percent of the money went to  
16 projects of \$20,000 or less.

17 And finally reduced emphasis on  
18 loan guarantees, and increased emphasis by  
19 USDA on grant outreach.

20 I want to touch for a moment on  
21 the loan guarantee issue, because this really  
22 seems to have been a sticking point with USDA.

1           The agency has placed increased emphasis on  
2           loan guarantees since 2006. In fact, over 50  
3           percent of the funds have been set aside for  
4           loan guarantees in the program.

5                       And USDA has also promised  
6           priority review of loan guarantees, or loan  
7           guarantee grant combination applications.

8                       The results, if you see what's  
9           happening in practice, they have fallen short  
10          of USDA expectations. Small projects in  
11          certain states have essentially - have  
12          requested loan guarantees not because they  
13          need a loan guarantee, but because it simply  
14          boosts their chances of getting a grant.

15                      And in a sense loan guarantees are  
16          being forced on applicants who don't need  
17          them. And yet the results are that despite  
18          the 50 percent set aside, there's only been \$9  
19          million in loan guarantee awards versus the  
20          \$200 million set aside that USDA put for this.

21                      Let me switch quickly in my  
22          remaining time to the biomass crop assistance

1 program. Again this is a critical program for  
2 priming the biomass supply chain.

3 The principals that we see here  
4 are that we want to see USDA and this program  
5 apply sustainability and rural economic  
6 development criteria to energy crop  
7 production; provide a safety net to farmers  
8 willing to transition to energy crops; and  
9 encourage visible working models for energy  
10 crop and biomass production and utilization.

11 In terms of the environmental  
12 criteria, the managers report really  
13 emphasized these criteria in selecting  
14 projects, particularly the wildlife issues.  
15 It's important that the agencies incorporate  
16 wildlife water quality and carbon  
17 sequestration measures selecting the  
18 particular projects.

19 We want to see the project not be  
20 limited to native plantings, and we would like  
21 to see at least some projects awarded to high  
22 yield noninvasive energy crops such as

1 miscanthus.

2                   Finally I think it's important  
3 that the program support both geographic and  
4 project size diversity. Size doesn't matter  
5 here; there are plenty of applications and  
6 plenty of users of biomass who are small and  
7 local, and both large and small projects  
8 should be encouraged.

9                   Other issues I just want to  
10 mention just very briefly. You asked for  
11 comments on what kind of guarantee the biomass  
12 conversion facility should have who purchase  
13 the energy contract. Simply a purchase  
14 contract or a letter of intent should be  
15 adequate.

16                   In terms of establishment cost -  
17 in terms of the three types of payments under  
18 this program, we believe that all these should  
19 be independent of one another. In other words  
20 if one is awarded, one should be able to get  
21 a harvest transfer payment or an annual  
22 payment without necessarily getting

1 establishment cost payments.

2 And finally, and I want to  
3 emphasize this again, don't bias the program  
4 against small projects, either on the grower's  
5 side or on the biomass conversion facility  
6 side. Ramping scale up too quickly might not  
7 be the best approach. Smaller projects  
8 increase innovation and increase the diversity  
9 of types of applications, and allows efforts  
10 in multiple approaches and technologies, and  
11 allows everything from large coal-fired power  
12 plants to small combined heat and power  
13 facilities to ethanol plants to cellulosic  
14 ethanol facilities to take advantage of this  
15 program.

16 MODERATOR ORTIZ: Thank you, Mr.  
17 Kubert.

18 MR. KUBERT: Thank you very much.

19 MODERATOR ORTIZ: Following Mr.  
20 Kubert is Ms. Martha Noble, and following Ms.  
21 Noble will be Mr. Bob Gray.

22 MARTHA NOBLE, SUSTAINABLE AGRICULTURE

1 COALITION

2 MS. NOBLE: Good afternoon, and  
3 thank you for the opportunity for me to  
4 present the recommendation of the Sustainable  
5 Agriculture Coalition on the new authorities  
6 of the 2008 farm bill for expanding rural  
7 renewable energy opportunities.

8 And also thank you for your  
9 patience and your stamina, as we go into the  
10 afternoon here. I admire it very much.

11 The coalition represents 33 family  
12 farm rural development conservation and  
13 environmental organizations from around the  
14 U.S. that share commitment to federal policy  
15 reform which promotes sustainable agriculture,  
16 and healthy vibrant rural communities.

17 I will also be submitting written  
18 remarks, and I'm going to keep these fairly  
19 brief.

20 In the opening remarks here, I  
21 would like to just focus on some general  
22 principles that were developed by the

1 Sustainable Agriculture Coalition shortly  
2 after the enactment of the 2002 farm bill.

3 It was clear that the federal  
4 government in that bill was making a  
5 commitment to energy, bioenergy from  
6 agricultural feedstocks, and energy generation  
7 based n farms and rural communities.

8 We were concerned both with the  
9 2002 farm bill, but then with the huge ramp up  
10 from the renewable fuel standard of the  
11 initial focus being almost solely on corn  
12 ethanol, particularly when it actually has  
13 resulted in some operations losing diversity,  
14 going to continuous corn; and a system that  
15 has high inputs of fertilizers and pesticides;  
16 and also in terms of the fossil fuel  
17 breakpoints isn't as good as some other  
18 systems in these next generations which we're  
19 really talking about today could be.

20 And we also wanted to ensure that  
21 rural communities would share in the benefits  
22 of agriculturally-based bioenergy and not



1            simply be mined for their resources, for their  
2            agricultural resources.

3                            In our position paper we have a  
4            number of general principles, and I just want  
5            to emphasize for this talk three of them that  
6            I think apply to almost all the bioenergy  
7            programs in the farm bill. And then I'll just  
8            talk about the two, the 9007 and the 9011  
9            sections.

10                            The first point for us is that the  
11            immediate priority of any energy policy is to  
12            manage current energy use through conservation  
13            in energy efficiency. Reducing unnecessary  
14            use of energy is commonsense; it saves money;  
15            it helps the environment. And likewise  
16            numerous studies have shown that improving the  
17            efficiency with which energy is used is the  
18            cheapest and quickest energy source.

19                            And we do need a lot of work on  
20            energy efficiency and energy conservation on  
21            our farms and in our rural communities. If  
22            we've seen the distress of farmers who have

1           been looking at what we are going to probably  
2           see as a continuing trajectory of high energy  
3           prices with spikes, energy price spikes along  
4           the way.

5                        A second major principle for us is  
6           that the development of new energy sources  
7           should not only be ecologically sound but  
8           socially responsible, and locally managed when  
9           possible. A farm-based sustainable energy  
10          system has great potential to be naturally  
11          responsive to the economic needs of rural  
12          communities and family farmers.

13                      The public good of a farm-based  
14          energy system must meet the same criteria of  
15          a sustainable agricultural system:  
16          economically viable; locally managed;  
17          ecologically sound; and socially responsible.  
18          The appropriate scale of new renewable energy  
19          systems and their impacts on rural communities  
20          should be considered.

21                      A third issue goes to the  
22          environmental and conservation sustainability.

1 Biomass energy crops should be grown and  
2 harvested in a way that embodies best  
3 stewardship practices to maintain or improve  
4 air, water and soil quality.

5 In looking at specific criteria  
6 for judging sustainable biomass energy  
7 production it should include the impact both  
8 on water quality as well as on water quantity.

9 Water should not be consumed  
10 beyond replacement levels.

11 The impact on soil quality is  
12 extremely important, and I don't think really  
13 has had enough attention in this vision or  
14 this ramp up of all the energy, all the  
15 bioenergy we are going to get out of our  
16 agricultural systems.

17 These systems will be renewable  
18 systems as long as the underlying resources in  
19 them are being maintained and protected, and  
20 that they are healthy systems. Otherwise our  
21 renewable energy will not be renewable in the  
22 long run.

1                   We also have to consider the  
2 effects on wildlife. Harmful effects on  
3 wildlife should be held to a minimum with  
4 sound and effective wildlife conservation  
5 planning.

6                   Air quality is always an issue of  
7 importance, and we are looking to some of  
8 these systems to help reduce air pollutants,  
9 particulate matter, and of course for carbon  
10 sequestration. Those are important issues.

11                   The net energy balance is also an  
12 issue, and that should be measured over a full  
13 lifecycle analysis. When we are looking at  
14 what we want to proceed with in terms of  
15 agriculturally-based energy.

16                   Diversity is also an issue.  
17 Biomass energy production must avoid the  
18 monoculture trends of industrial agriculture.

19                   Crop rotations must be incorporated at the  
20 landscape scale in order to ensure sufficient  
21 diversity of species to attain soil quality,  
22 wildlife habitat and ecosystem health. ;

1                   With the increase pressure of  
2 biomass energy production on the nation's  
3 agricultural resources and its natural  
4 resources, it is well worth the time, the  
5 energy and the forethought of USDA to develop  
6 biomass energy systems that can improve the  
7 environmental performance of agriculture and  
8 increase the health and economic vibrancy of  
9 rural communities.

10                   Now I want to turn briefly to a  
11 couple of recommendations for specific  
12 programs, first the Section 9007 rural energy  
13 for America program.

14                   With regards to the energy audits  
15 and the technical assistance, SAC was very  
16 glad to see the farm bill provision for energy  
17 audits retained and combined with the  
18 renewable energy development to the technical  
19 assistance portion in the REAP program.

20                   The audits were sadly neglected in  
21 the implementation of the 2002 farm bill, and  
22 we would like them to be a high priority for

1 the 2008 farm bill.

2 We also have, going to the second  
3 point, we are also concerned about the  
4 eligible entities. The coalition represents  
5 a number of nonprofit organizations, and many  
6 of our organizations have been working, have  
7 a history of working, with farmers and  
8 ranchers on energy audits and technical  
9 assistance. You will be hearing actually from  
10 a representative of one of those organizations  
11 next, Bob Gray representing the National  
12 Center for Appropriate Technology.

13 We would like to see the Section  
14 9007 be - any similar entities include private  
15 nonprofit to have energy expertise, and to  
16 have a track record of working with farmers  
17 and ranchers.

18 We are glad to see the feasibility  
19 study grants for energy efficiency  
20 improvements and renewable energy systems  
21 going to agricultural producers and small  
22 business, and we agree with some previous

1 speakers that there will need to be a fair  
2 amount of outreach by rural development on  
3 these grants.

4 And we were also very happy to see  
5 the smaller grants, \$20,000 or less, with a  
6 carve out in this program. And those we do  
7 endorse what you have just heard from Charles  
8 Kubert with the Environmental Law and Policy  
9 Center.

10 But in addition we would like USDA  
11 to consider in this grant program of taking  
12 some of the approaches that the sustainable  
13 agricultural research and education program  
14 has taken in terms of incorporating farmer-to-  
15 farmer demonstrations as part of that system.  
16 Farmers I think in many cases learn best from  
17 other farmers, and from learning what has  
18 happened to them, not only successes, but also  
19 failures, which can teach a lot of people a  
20 lot of things.

21 So taking that approach, or  
22 considering working within the SAIR to help

1 with that demonstration. They've been doing  
2 that for years, for 20 years. They just had  
3 their 20th anniversary. And they have been  
4 doing it very well.

5 If it goes to the BCAP program,  
6 Section 9011, a few things. We are very  
7 interested in the criteria for project  
8 selection; we worked very hard on that section  
9 during the farm bill development. We think  
10 the variety and production approaches and  
11 range of eligible crops is one of the most  
12 important sections, and should have a high  
13 priority.

14 Avoiding monocultures have  
15 geographic diversity in the project, a variety  
16 of land and soil types, crops with multiple  
17 uses. Things like mixed perennial systems,  
18 resource conserving crop rotations, can  
19 provide benefits both for the land and the  
20 farmers.

21 We are also concerned about huge  
22 monocultures from the perspective of putting



1 farmers' eggs all in one basket, of  
2 essentially tying farmers to enterprises many  
3 of which may be new. We think it's best to  
4 have economic diversity.

5 And of course we are interested in  
6 the criteria for the impact on soil, water and  
7 related resources. This is an extremely  
8 important provision, and should be a high  
9 priority in project selection.

10 We also recommend that USDA  
11 explore the option of allowing the BCAP  
12 project farmers to enroll in EQUIP  
13 automatically or if they are eligible the  
14 conservation stewardship program. We  
15 understand that BCAP is going to be  
16 administered through the Farm Service Agency,  
17 and so we would also recommend that the Farm  
18 Service Agency have the Natural Resources  
19 Conservation Service as a consultant on  
20 conservation planning and technical  
21 assistance. This isn't new. This is part of  
22 the conservation reserve program. I'm now

1 saying it should be done exactly that way, and  
2 we'll be giving you our written comments with  
3 more ideas on that.

4 With regards to the annual  
5 payments to the farmers, we do not think that  
6 those payments should be reduced, or they  
7 should be reduced minimally, even if the  
8 farmer ends up selling the crops from the  
9 project. Farmers need clarity going into  
10 these projects, and some incentive that they  
11 will have some safety in their economic  
12 operation. As you have heard from the  
13 biorefineries, these are new projects. They  
14 may not work. They may fail. There may be  
15 some problems along the way. And if you  
16 really want to get farmers to do this on a  
17 project and trial basis, I think it's good to  
18 give them a little certainty of how they are  
19 going to fare.

20 And finally we have a number of  
21 problems with the harvesting and collection.  
22 We will give you our references on that, but

1           there was a study done by agricultural  
2           research scientists in late 2007 which said we  
3           do not have the economic factors even for corn  
4           stover, which is the one we know most about,  
5           in terms fo how much residue should be left  
6           for soil quality. We know about the erosion;  
7           but we don't know about soil quality.

8                           Thank you.

9                           MODERATOR ORTIZ: Thank you, Ms.  
10          Noble.

11                          Following, our next presenter is  
12          Mr. Bob Gray who will be the last presenter in  
13          Section 2007, closing out the rural energy for  
14          America program.

15                          And then we'll be moving into  
16          Section 9009, rural energy self-sufficiency  
17          initiative, with Dr. Ernst Cebert.

18                          Mr. Gray.

19          BOB GRAY, NATIONAL CENTER FOR APPROPRIATE  
20          TECHNOLOGY

21                          MR. GRAY: Thank you very much.

22                          I would like to express my

1 appreciation to the department for doing this,  
2 because it is coming at a critical time. And  
3 I have to say to all you gentlemen, you have  
4 been very attentive; you have been very  
5 diligent in listening to all the  
6 presentations, and we really appreciate that.

7 I am Bob Gray, and I work with the  
8 National Center for Appropriate Technology,  
9 which is a private nonprofit organization.

10 And I'd like to just digress for just a moment  
11 a little bit of history here, because I am a  
12 history buff.

13 NCAT got formed in 1976 as a  
14 result of the huge gas lines we saw and the  
15 energy problems we saw in those days. And at  
16 that time they concentrated their efforts on  
17 two areas, doing demonstration projects in  
18 solar, wind, geothermal. They even did some  
19 biofuels work in those days.

20 And they also helped homeowners  
21 through an 800 toll-free line that they had  
22 who were either going to retrofit their homes

1 or building new homes or getting new furnaces  
2 to do energy conservation work, because that  
3 was a major emphasis at that time as well.

4 Interestingly enough, as time went  
5 on, NCAT got a lot of calls from farmers  
6 asking about energy related issues. And for  
7 example they got a number of calls at that  
8 time of course over the years in Montana, in  
9 Butte, Montana. But they got calls from  
10 farmers on energy conservation with water  
11 irrigation. And so the idea was that we have  
12 an 800 toll-free line for energy use for homes  
13 and other kind of demonstration projects for  
14 renewable energy. We should do something in  
15 agriculture.

16 And that's how the appropriate  
17 technology transfer to rural areas program was  
18 formed in the mid-'80s by NCAT, and it has  
19 been going on now for almost 21 years.

20 And this program works out of six  
21 different states; has offices not only in  
22 Montana, California, Arkansas, Louisiana, Iowa

1 and Pennsylvania. And it provides information  
2 to farmers through a toll-free line, 800 line,  
3 through an extensive website, through  
4 publications and through workshops; those are  
5 sort of the four areas it operates under.

6 It has a grant, a cooperative  
7 agreement with rural business cooperative  
8 service, with RBS, and we've had it for a  
9 number of years. And I would have to say that  
10 the working relationship with RBS has been  
11 tremendous, and I'd like to give credit to Ben  
12 Anderson. I don't know if Ben is here, but he  
13 runs a great shop, and we appreciate all the  
14 help and guidance that they have given us.

15 So over the years ATRA's mission  
16 has primarily been on sustainable farming  
17 practices, and to help farmers with value  
18 added products. Because we are working in  
19 rural development, there is a lot of emphasis  
20 on value-added products. And we have been  
21 doing right from the start, helping farmers  
22 with incorporating sustainable farming

1 practices on their operations.

2 But over the last several years we  
3 started getting more and more energy  
4 questions, as you would expect. And so we  
5 have been doing a lot more work in the energy  
6 area.

7 And interestingly enough, when the  
8 farm bill just passed, I'm just going to jump  
9 to another title, Title VI, the rural  
10 development title, title Section 6016 has  
11 authorized ATRA and clarified its mission and  
12 added some items under energy, renewable  
13 energy and renewable energy work; in other  
14 words, saying we will help farmers reduce  
15 input costs, conserve energy resources,  
16 diversity their operations through new energy  
17 crops, and energy generation facilities.

18 So in a way that we have been  
19 doing this, but now it has been placed as part  
20 of the farm bill in the rural development  
21 title.

22 Just to give you an idea of some

1 of the things that we have been doing over the  
2 last couple of years, last year for example we  
3 held in 12 states we met with over 1,500  
4 producers on farm scale biodiesel production,  
5 and our publications are very much sought  
6 after. We have a publication for example on  
7 irrigation efficiency, and more than 30,000  
8 copies of that were downloaded from our  
9 website.

10 I would just like to concentrate  
11 my comments this afternoon on two areas of the  
12 energy title in the farm bill. The first one  
13 is Section 9007, the rural energy for America  
14 program section. And we have in our work, we  
15 have worked across the board with USDA  
16 officials in all different agencies including  
17 CSR, EES, RMA, NRCS of course as well as the  
18 Rural Development Agency. So we are ready to  
19 work together. We want to avoid any  
20 duplication that we might have in the work  
21 that we already do.

22 I would like to just echo Mr.



1 Metz' comment though about in the - we have  
2 been doing these farm energy audits for some  
3 time. We did several hundred last year. But  
4 we noticed in the language in Section 9007(b)  
5 that nonprofit organizations - it doesn't  
6 spell out nonprofit organizations being  
7 eligible to receive funds to do these farm  
8 energy audits. And I would like to see that -  
9 it says it's as determined by the Secretary.  
10 We hope that when you write the rules that you  
11 will broaden that so an outfit like NCAT with  
12 their ATRA program can do that.

13 Also we think the - having 10  
14 percent of the rural energy for America  
15 programs going to feasibility studies is a  
16 very very good idea. And we have the ability  
17 with our staff, which has a number of  
18 different agricultural disciplines in it  
19 including folks with disciplines across many  
20 areas of expertise in agriculture; but we also  
21 have engineers available as well. But we  
22 think that idea of 10 percent set aside for

1 feasibility study is a good idea. That is  
2 something that we can help to oversee, those  
3 feasibility studies.

4 And lastly I'd like to comment on  
5 the Section 9009, the rural energy self-  
6 sufficiency initiative.

7 We have been doing assessments,  
8 our engineers at NCAAT, have been doing energy  
9 assessments for a number of communities  
10 throughout the country. As a matter of fact  
11 we just completed a couple of assessments  
12 recently, one in a community, North Carolina,  
13 and in Montana. And we have helped those  
14 communities look at becoming self sufficient  
15 energywise. We are more than happy and will  
16 be sharing that information with USDA, and  
17 that works right into Section 9009.

18 So I guess what I'm saying is, we  
19 are not rested, but we are tanned and ready to  
20 continue to do the work that we have already  
21 been doing with the department, and we look  
22 forward to working with you on this energy

1 title in implementing it, and we think we can  
2 do even more than we have already been doing.

3 Thank you very much.

4 MODERATOR ORTIZ: Thank you, Mr.  
5 Gray, and that closes out Section 9007, rural  
6 energy for America program.

7 SECTION 9009: RURAL ENERGY SELF-SUFFICIENCY  
8 INITIATIVE

9 MODERATOR ORTIZ: We'll now move  
10 into Section 9009, Rural Energy Self-  
11 Sufficiency Initiative. And Ernst Cebert is  
12 up to present.

13 Following that we will go into  
14 Section 9011, Biomass Crop Assistance Program.  
15 And Ms. Rita Neznec will be following Dr.  
16 Ernst Cebert. Thank you.

17 Dr. Cebert.

18 DR. ERNST CEBERT, ALABAMA A&M

19 DR. CEBERT: Thank you very much.  
20 And I would like to thank the panel for giving  
21 me the opportunity, and also the staff for  
22 making sure all the logistics for something

1           like this comes off very well.

2                       I'm very surprised that I'm the  
3           only one here from a university. And of all  
4           universities, a small land grant university in  
5           HBCU, and as usual from the university system  
6           we always have our PowerPoint to click  
7           everything away. But I did not send my Power  
8           Point on time, so I am going to have to make  
9           believe on the concepts that would be in the  
10          PowerPoint.

11                     And the reason my presentation was  
12          going to be and is on a concept which we put  
13          together out of Miami University. It's  
14          referred to as the Biodiesel Classroom on  
15          Wheels.

16                     Basically what the concept is, I  
17          came up with by putting a fully functional  
18          biodiesel processing unit on a trailer with  
19          all the necessary aspects necessary to turn -  
20          to convert any feedstock into biodiesel. By  
21          feedstock I mean in this case waste vegetable  
22          oil, animal rendering, yellow grease, which

1           ever feedstock we might have.

2                       And it's been exactly a year ago  
3           last September since we launched the project,  
4           and that trailer has covered more than 13,000  
5           miles across the state of Alabama.

6                       So what it is, we call is the  
7           Biodiesel Classroom on Wheels, basically COW  
8           for short, Classroom on Wheels. We take the  
9           demonstration to the site. We would tell  
10          farmers or small business owners who are in  
11          need of diesel where the price of fuel is  
12          basically driving them out of business that as  
13          long as they can accumulate a certain amount  
14          of feedstock we will come to their location  
15          and have them actually do their own biodiesel  
16          so they can learn the process properly.

17                      The success of the program has  
18          been simply unbelievable to a point where  
19          right now I no longer run the program out of  
20          the university; the state Department of  
21          Agriculture has taken it over, because they  
22          have better resources to run it across the

1 state.

2 The good thing about the system is  
3 that you take your feedstock, you convert it  
4 to diesel, you take that diesel, you put it in  
5 the same pickup truck that is pulling it  
6 across the state.

7 But what we are learning more as  
8 farmers are requesting the use of this  
9 particular demonstration system is that they  
10 want to know, can they have - can they find  
11 funds from programs such as the rural  
12 development program to create a similar type  
13 of trailers where it can be a coop within a  
14 small community, where it can go from farmer  
15 to farmer to farmer in the wintertime or  
16 anytime during the year. And furthermore, the  
17 farmers, they would like to simply put aside  
18 20, 40, 50 acres of land to grow an oil seed  
19 crop and make basically produce their  
20 feedstock; convert that feedstock to biodiesel  
21 for self sufficiency right there on the farm.

22 And that right now is something

1           that I cannot stay in my office, because every  
2           week I'm being summoned by a farmers' group  
3           somewhere around the state to put the logistic  
4           on paper as to how this can be done.

5                         What is the bottleneck right now?

6           The bottleneck right now is simply the money.

7           Again, we at our university, HBCU, we are  
8           dealing with a lot of small farmers, people  
9           with 500 acres or 1,000 acres or so. So  
10          having cash flow to invest into a system like  
11          this is just not readily available, even  
12          though with a small coop they feel if they can  
13          get help, a small sized grant, we are talking  
14          about \$50,000 or less, to actually help build  
15          these type of systems, they feel that they can  
16          actually overcome this burden of high fuel  
17          cost that is on the constant rise. Even  
18          though the price of feedstock - we are seeing  
19          that feedstock price is going up, but as  
20          feedstock prices are going up, the farmer that  
21          is growing it is not making a profit, simply  
22          because on the front end he is paying more for

1 fuel, and he is also paying more for all the  
2 biobased product, the fertilizers, and all of  
3 the herbicide which are biobased product - I  
4 mean not biobased but petroleum based  
5 products. So therefore their profit has been  
6 cut off completely.

7 So this success story hopefully I  
8 am going to send - not hopefully, I will send  
9 all the written information and put it on the  
10 record for this, so others can view it,  
11 because it is definitely something I believe  
12 which can be emulated by other states and  
13 other rural areas across the country.

14 I appreciate the time.

15 MR. MAST: I have one question.  
16 How many farmers have you touched and worked  
17 with to produce biodiesel?

18 DR. CEBERT: Well, let me start  
19 answering the question by saying that we held  
20 a field day, I don't even mention what I do  
21 for a living at the university; I'm a plant  
22 breeder, and I work with canola, and I'm



1           developing new canola culture varieties to be  
2           grown in the southeast as feedstock for  
3           biodiesel. And it is because of that that I  
4           am in the business of biofuel now.

5                         We held a field day in which we  
6           had over 250 participants came in to see the  
7           canola crop, but at the same time to see a  
8           demonstration using a biodiesel classroom on  
9           wheels. And since we have done that we have,  
10          as I said, we've traveled all over the state,  
11          and actually having farmers hands-on doing the  
12          - some biodiesel demonstration.

13                        Right now the last one I went to  
14          is through Marion, Indiana, where the farmers'  
15          group, they just right now are feverishly  
16          looking for money to put a system like this in  
17          place.

18                        So we are working with many  
19          farmers, and also entrepreneurs in the  
20          process.

21                        Thank you very much.

22                        MODERATOR ORTIZ: Thank you, Dr.

1 Cebert.

2 And that closes out Section 9009,  
3 rural energy self-sufficiency initiative, and  
4 we are moving on to Section 9011, Biomass Crop  
5 Assistance Program. First up is Ms. Rita  
6 Nezneke. And after Ms. Rita will be Mr. Bart  
7 Ruth.

8 SECTION 9011: BIOMASS CROP ASSISTANCE  
9 PROGRAM

10 RITA NEZNEK, AMERICAN FOREST FOUNDATION

11 MS. NEZNEK: Good afternoon.

12 Thank you for the opportunity to  
13 comment today on the implementation of the  
14 energy title in the 2008 farm bill.

15 I am here today representing the  
16 American Forest Foundation and its network of  
17 over 90,000 family forest owners and  
18 conservation leaders.

19 Today we are at a crossroads. We  
20 have a tremendous opportunity to produce the  
21 next generation of home grown energy by  
22 tapping one of the largest sources of

1 renewable biomass, the 262 million acres of  
2 family forests in the U.S.

3 At the same time we can make our  
4 water and air cleaner; strengthen our rural  
5 economies; keep our lands forested; and create  
6 better habitat for wildlife.

7 How can we do this? We can make  
8 sure family forest owners have access to  
9 renewable energy markets, while providing  
10 these owners with the tools and technologies  
11 to harvest biomass sustainably.

12 Renewable energy markets can  
13 create a new revenue stream for family forest  
14 owners while helping them stay on the land and  
15 continue to provide the environmental and  
16 economic benefits we all enjoy. These markets  
17 can add to, not replace, existing wood  
18 products markets.

19 The 2008 energy - farm bill's  
20 energy title provides important incentives to  
21 encourage sustainable product from renewable  
22 energy from family forests. I'll focus my

1           comments on two priority areas in the title  
2           that present the greatest opportunity and  
3           potentially the greatest challenges for  
4           producing renewable energy from family  
5           forests.

6                         First, AFF is extremely pleased  
7           with the inclusion of biomass from family  
8           forests in the overall definition of renewable  
9           biomass in the energy title.

10                        Since the incentives in the title,  
11           whether it's grants for building a biorefinery  
12           or payments for growing or purchasing  
13           feedstock, are focused on renewable biomass,  
14           family forests will greatly benefit from the  
15           incentives in the title, throughout the entire  
16           title.

17                        This definition creates a  
18           challenge, however, because of the disparity  
19           between the farm bill's definition and the  
20           definition in the renewable fuels standard in  
21           the 2007 energy bill.

22                        Unfortunately the energy bill

1 restricts what renewable biomass feedstocks  
2 can be used to meet the RFS. In doing so  
3 large amounts of biomass from family owned  
4 forests cannot be used to help meet the new  
5 RFS. The 2008 farm bill creates incentives to  
6 help meet the RFS, but includes a different  
7 definition of biomass that can be used as  
8 feedstock that includes family forests as I  
9 mentioned.

10 This will not be easy to resolve  
11 and will create uncertainty and conflict in  
12 the market as well as in the administration of  
13 the 2008 energy bill, or energy title of the  
14 farm bill.

15 Ultimately the energy bill  
16 definition should be amended to include all  
17 sustainably harvested biomass from family  
18 forests as one of the largest potential  
19 sources of renewable feedstock. In the  
20 meantime, USDA and DOE must maintain the farm  
21 bill's broader definition and ensure that the  
22 incentives provided in the farm bill are jump

1 starting the next generation of bioenergy  
2 production and tapping the tremendous supply  
3 of feedstock available from family forest.

4 In developing the regulations to  
5 implement both the energy bill and the farm  
6 bill, the American Forest Foundation  
7 encourages consideration of the role of  
8 certification, forest certification that is,  
9 and what role it can play in sustainable  
10 renewable energy production from family  
11 forests.

12 Family forest owner certification  
13 through the internationally recognized  
14 incredible American tree farm system, a  
15 program of AFF, can help family forest owners  
16 harvest their biomass sustainably for the  
17 production of renewable energy as well as  
18 other environmental and economic benefits.

19 Currently 91,000 family forest  
20 owners who own roughly 24 million acres are  
21 certified through the American tree farm  
22 system.

1                   My second point of emphasis today  
2                   will be on the biomass crop assistance  
3                   program. And it's another great opportunity  
4                   for encouraging sustainable biomass production  
5                   from family forests. New and existing family  
6                   forests should be eligible under the program,  
7                   regardless of whether they are establishing a  
8                   new forest for biomass production, or taking  
9                   steps to manage their forests to increase  
10                  opportunities for biomass production for  
11                  renewable fuels.

12                  Establishment payments should  
13                  include funds for activities that are needed  
14                  to improve availability of biomass for  
15                  renewable energy. This could include  
16                  activities such as site preparation, thinning  
17                  and pesticide application to manage competing  
18                  vegetation.

19                  Annual rental payments should take  
20                  into consideration differing market conditions  
21                  for forests as compared to traditional  
22                  agricultural lands.

1                    Payments for harvesting,  
2                    collecting and storing feedstocks should be  
3                    available to either the individual landowner  
4                    or the logger allowing flexibility for  
5                    different harvesting situations of family  
6                    forest owners.

7                    The AFF's American tree farm  
8                    system could serve as a vehicle for grouping  
9                    landowners together into a BCAP project area  
10                   and coordinating the supply of forest biomass  
11                   to a bioenergy facility. Flexibility to work  
12                   with a range of private sector aggregators  
13                   such as AFF's tree farm system should be  
14                   incorporated into the program.

15                   The entire farm bill energy title  
16                   has the potential to encourage sustainable  
17                   renewable energy production from biomass  
18                   harvested from family forests. Appropriate  
19                   implementation of the renewable biomass  
20                   definition and of BCAP are critical to making  
21                   this happen.

22                   We look forward to working with



1           you as you implement these programs. Family  
2           forest owners are extremely excited about this  
3           new opportunity to play a key role in meeting  
4           the nation's energy and environmental  
5           challenges.

6                           Thank you very much for your time.

7                           MODERATOR ORTIZ: Thank you, Ms.

8           Ritz Nezek. Next we have Mr. Bart  
9           Ruth, and following Mr. Ruth will be Mr.  
10          Maurice Hladik.

11          BART RUTH, 25x25 ALLIANCE

12                          MR. RUTH: Thank you. I'd like to  
13          begin by thanking the department and Under  
14          Secretary Dorr for having this meeting today,  
15          and to the distinguished panel for listening  
16          so intently.

17                          And I guess any panel that has a  
18          fellow Nebraskan on it has to be  
19          distinguished. So I'm looking forward to  
20          providing comments today on the rulemaking  
21          process for the programs authorized under the  
22          Title IX energy title in the Food Conservation

1 and Energy Act of 2008.

2 My name is Bart Ruth, and I'm a  
3 soybean and corn farmer from eastern Nebraska  
4 and currently serve on the 25X25 national  
5 steering committee.

6 As the 21st century unfolds,  
7 America has an opportunity to chart a new  
8 course for its energy future. Our nation's  
9 farmers, ranchers and forest land owners have  
10 set a bold vision to provide solutions from  
11 the land to meet our energy needs.

12 The right policy framework and  
13 programs are needed, however, to make this  
14 reality - make this vision a reality.

15 The 25X25 national steering  
16 committee supports all of the energy programs  
17 authorized under Title IX of the Food  
18 Conservation and Energy Act of 2008, and urges  
19 USDA to fully support the following program  
20 imperatives.

21 First, while we appreciate the  
22 complexity of the rulemaking process, we urge

1           USDA to move expeditiously in developing and  
2           finalizing the rules that will guide the  
3           implementation of the programs authorized  
4           under Title IX.

5                         We appreciate USDA's early  
6           scheduling of today's listening session, and  
7           we urge the department officials to fast track  
8           rulemaking for all Title IX programs.

9                         Secondly, we strongly urge USDA to  
10          aggressively work within the federal budget  
11          process to ensure that the programs authorized  
12          in the Food Conservation and Energy Act of  
13          2008 are fully funded. And I can commit that  
14          our organization and our coalition members  
15          will be carrying on that - that - that  
16          aggressive agenda as well.

17                        Third, USDA should significantly  
18          expand its renewable energy research,  
19          development and deployment programs.  
20          Specifically USDA should support a national  
21          goal for research, development, demonstration  
22          and deployment of reducing the costs for

1 renewable energy production by at least 45  
2 percent by the year 2025.

3 This goal is consistent with the  
4 National Renewable Energy Laboratory's current  
5 goals.

6 And finally we encourage USDA to  
7 fully utilize the traditional wood-using  
8 industry such as sawmills, pulp mills,  
9 manufactured board companies, and others, in  
10 appropriate programs of Title IX.

11 These companies look forward to  
12 joining USDA in development of future  
13 bioenergy facilities, and urge USDA to select  
14 existing partners at such sites while seeking  
15 out new wood-using energy facilities in areas  
16 where wood fiber resources are underutilized.

17 Furthermore, in order for the  
18 forest industry to maximize their  
19 participation in the USDA bioenergy programs,  
20 the definition of eligible woody biomass needs  
21 to encompass biomass produced from across the  
22 entire forestry sector.

1                   Even though the Energy Security  
2                   and Independence Act of 2007 provides another  
3                   definition of eligible biomass from wood for  
4                   the EPA administered programs, the EISA  
5                   definition excludes a significant portion of  
6                   potential wood resources.

7                   We urge USDA to follow  
8                   congressional intent of the woody biomass  
9                   definition as written in the Food Conservation  
10                  and Energy Act of 2008. ;

11                  In addition to these overarching  
12                  recommendations, 25X25 national steering  
13                  committee offers the following comments on  
14                  individual Title IX programs.

15                  Section 9005, bioenergy program  
16                  for advanced biofuels: 25X25's number one  
17                  renewable fuel priority is to accelerate the  
18                  commercial production of cellulosic and next  
19                  generation biofuels. We support 9005, and  
20                  encourage USDA to simplify and to streamline  
21                  the program rules to get the highest rate of  
22                  participation from a variety of producers.;

1                   Furthermore, we urge USDA to make  
2                   payments to producers based on all gallons of  
3                   biodiesel produced. The program should not  
4                   tie higher levels of payment to increase  
5                   production, because it puts producers with  
6                   consistent levels of production and those that  
7                   have weathered the recent market challenges at  
8                   a disadvantage.

9                   Section 9011, biomass crop  
10                  assistance program, 25X25 strongly supports  
11                  the biomass crop assistance program. The  
12                  program should provide transition payments to  
13                  farmers, forest owners, and ranchers for the  
14                  conversion of land to energy crop production  
15                  in preparation for future bioenergy  
16                  operations.

17                  The program should require the  
18                  establishment of perennial plant materials  
19                  such as switchgrass or short rotation trees,  
20                  and should provide annual payments for the  
21                  establishment period of that crop. We  
22                  recommend that the rules for this very

1 important program set broad parameters for  
2 feedstock eligibility, allowing for  
3 experimentation with feedstocks of various  
4 types.

5 We also urge USDA to consider that  
6 BCAP is first and foremost an energy program,  
7 and while bioenergy feedstocks should be  
8 planted in a sustainable and environmentally  
9 friendly manner, BCAP should not be burdened  
10 by so many additional requirements as to force  
11 low producer participation.

12 Currently Section (C)(2)(a)  
13 requires a letter of commitment from biomass  
14 conversion facility. Some producers are  
15 concerned with possible interpretations of  
16 this letter of commitment. If USDA gives  
17 preference to projects with a signed contract,  
18 this may lead to reduced participation.

19 It may be difficult for producers  
20 to receive a letter of commitment from a  
21 biorefinery in advance. Determination of  
22 project eligibility should be made based on a

1 case-by-case basis, and not solely rest on the  
2 existence of a letter of commitment.

3 Section (D)(2)(b) assistance with  
4 collection, harvest, storage and  
5 transportation: despite an abundance of  
6 biomass feedstock in this country, feedstocks  
7 are often located at significant distances  
8 from refineries. Therefore cost-efficient  
9 storage and transportation of feedstocks will  
10 be a challenge for producers.

11 Hence we see this section as a  
12 critical component to the effective operation  
13 of the BCAP program, and urge that it be fully  
14 funded as intended by the law.

15 Thank you for the opportunity to  
16 share our preliminary comments and  
17 recommendations, and we look forward to  
18 submitting additional comments during the  
19 formal rulemaking process which will follow.

20 Thank you for your time.

21 MODERATOR ORTIZ: Thank you, Mr.  
22 Ruth.



1                   Up next to present is Mr. Maurice  
2           Hladik, and following Mr. Hladik is Mr. Andrew  
3           Bater.

4           MAURICE HLADIK, IOGEN CORP.

5                   MR. HLADIK: I wish to thank all  
6           the panel members and people in USDA for  
7           making today happen, and also some special  
8           thanks to Anne and Ellen who are out in the  
9           crowd there for making this day happen.  
10          Without the legislation we wouldn't be here.  
11          So thanks for the patience in listening to me  
12          so many times drone on about the things I'm  
13          going to talk about today.

14                   I'm from Iogen. It's a Canadian  
15          company, and we have been producing cellulosic  
16          ethanol by the tanker truckload from biomass,  
17          normally wheat straw, but other things work,  
18          for the last four years. We've got a one acre  
19          footprint, six-story high plant; but it's a  
20          quarter-million gallon capacity; that we've  
21          been tweaking and working on over time.

22                   We have 700,000 tons of straw

1           contracted in Germany, Idaho and Western  
2           Canada. And it looks like the Canadian site  
3           will get the nod as the first plant, as the  
4           Canadian government are on the verge of  
5           offering us a \$200 million interest-free loan.

6                         But the U.S. is the prize for  
7           technology. We want to be as large a player  
8           in this market as we can, and I'm sure our  
9           competitors have the same objective, and  
10          that's how business is.

11                        Let me paint a picture first of  
12          the opportunity and challenge that U.S.  
13          agriculture is facing. The 16 billion gallon  
14          RFS by 2022 which is really only 13 or so  
15          years away involves, just for illustrative  
16          purposes, let's assume that the fermentation  
17          and distillation in the technology that we use  
18          meets the same economies of scale as a  
19          conventional ethanol plant; it's the same  
20          system. And just for round numbers, we get 80  
21          gallons, and that seems to be the industry  
22          standard, of ethanol for every ton of biomass.

1           So if you took a million tons of biomass,  
2           that's 80 million gallons of ethanol, and 80  
3           million gallons would require 200 plants  
4           producing cellulosic ethanol over the next 13  
5           years.

6                         Again, for illustrative purposes  
7           assuming that the average farmer or grower  
8           will provide 1,000 tons of biomass to each of  
9           these plants; that involves 200,000 growers.

10                        I just had a quote from the  
11           National Association of Wheat Growers, and  
12           there's 166,000 wheat growers in this country,  
13           and that includes a lot that are very small  
14           operators.

15                        So we are facing - we, everybody  
16           in this room, and ourselves - are facing a  
17           phenomenal change in how this industry, i.e.  
18           agriculture, is going to face this. And this  
19           isn't a case of building another corn plant,  
20           or another flour mill. This is new types of  
21           agriculture. I just spent the last two days  
22           around Stillwater, Oklahoma, talking to the

1 people in that area. And it's a great area  
2 for switchgrass and other perennials, and they  
3 want to become buyer or refinery ready, and  
4 how do you get this started. How do you get  
5 1,000 growers in a community within 50-60  
6 miles tuned in to a perennial crop that they  
7 have probably not even seen growing before,  
8 and the concept of plantation agriculture. We  
9 are talking 10-year contracts, maybe based on  
10 some formula, but for growers, unless you are  
11 into orchards or something, suddenly a row  
12 crop grower facing 10 years, contracts, a new  
13 crop; we need more of them than we have wheat  
14 farmers in the next 12 to 14 years. This is  
15 going to be a huge challenge for the industry.

16 Now the farm bill is addressing  
17 this very nicely. Let me just comment on a  
18 couple of things before we get into 9011.

19 Section 9003, the loan guarantee:  
20 fantastic, works really well. Just two  
21 comments which should be user friendly. To be  
22 user friendly, two things that we'd really

1       like to see. It should be open as much as  
2       possible. So if the business plan is to the  
3       stage where a loan guarantee is required, they  
4       should not have to wait until the next year  
5       for the next call for proposals. There should  
6       be calls open all the time, or at least on a  
7       quarterly basis. There would be access to  
8       match the decision making cycle for the  
9       biorefinery.

10               Secondly, particularly in early  
11       years, these biorefineries have all sorts of  
12       hiccups that occur. And there shouldn't be a  
13       closure date. If an investor group has a loan  
14       guarantee approved, there shouldn't be a  
15       grandfather - it should be grandfathered. As  
16       long as they can demonstrate that they are  
17       active in the project, they shouldn't have it  
18       whisked away from them.

19               Again, on 9005, keep it user  
20       friendly.

21               Now, to Section 9011, the main  
22       reason I'm up here today, we are very

1           concerned that there is a bit of a disconnect  
2           here. It requires a commitment by the  
3           biorefinery before the grower becomes eligible  
4           for the program. Go right back to the last  
5           couple of days in Oklahoma. The growers want  
6           to get going; we want to get going. But we  
7           can't commit because they have never grown  
8           switchgrass before. They are not willing to  
9           contract with us to grow switchgrass, because  
10          we are not in the area yet. And it's a real  
11          chicken-and-the-egg thing, and it's  
12          unfortunate that for a legitimate biorefiner,  
13          they are not going to commit to a community or  
14          a group of farmers. And the unintended  
15          consequences could be, A, this program has  
16          very little uptake in it; and B, there could  
17          be fly-by-night organizations that do commit  
18          themselves to communities who do have very  
19          little chance of getting a biorefinery going  
20          quickly, and it's just like they staked the  
21          claim, then like the old gold rush days, and  
22          the other biorefiners may be left out.

1                   So we have, and Anne and Ellen  
2                   know this very much, walking through one  
3                   approach whereby growers could perhaps put in  
4                   without any commitment from any biorefiner,  
5                   hopefully at interest, say five acres where  
6                   all the costs including the opportunity costs  
7                   were covered so they could learn how to grow  
8                   a new biomass crop. Then when we came along  
9                   we'd have confidence the grower knew how to do  
10                  it; contract with them; and they in turn would  
11                  have comfort in contracting.

12                  And perhaps in Section 9008 there  
13                  would be a provision for this. But our real  
14                  plea is, focus on how this country can  
15                  mobilize 200,000 growers with the various  
16                  programs that you have got in front of them  
17                  now, and the opportunity to do rulemaking  
18                  perhaps to have a focus on this wonderful  
19                  challenge and wonderful opportunity.

20                  And I thank you very much.

21                  MODERATOR ORTIZ: Thank you, Mr.  
22                  Hladik.





1           worked with a bunch of federal regulators just  
2           down the street. I think it's easier to get  
3           a cab here. And I've learned on my small farm  
4           what farmers do or don't know. There is a lot  
5           that I don't know.

6                         An earlier speaker said that he  
7           was a farmer turned lobbyist. I hate to tell  
8           you, I'm sort of a lobbyist turned farmer.

9                         My farm has 20 acres of  
10          switchgrass that we planted this past summer.  
11          We had all the problems of an initial planting  
12          of switchgrass. My wife was aghast at the  
13          number of weeds that we've had in the field.

14                        This was farmland that had been  
15          let go fallow due to its difficult terrain and  
16          poor soil. I researched the options for what  
17          I could plant on this land. It's very  
18          picturesque land, but it really was not  
19          suitable for continuing in its usage as a hay  
20          ground.; It had been contoured and tilled in  
21          the past. We realized it was really better  
22          put into something like perennial grasses.

1                   And my proximity to Penn State was  
2                   a natural, because Penn State has an excellent  
3                   biomass program.

4                   My target for the switchgrass is a  
5                   proposed cellulosic ethanol plant a few  
6                   communities away; just now broken ground in  
7                   Clearfield, Pennsylvania. It's about 20  
8                   miles. It should be within a reasonable  
9                   target range.

10                  Now the remainder of my land is  
11                  forested with lots of Pennsylvania's black  
12                  cherry and oak trees, and unfortunately I have  
13                  a lot of miserable locust trees too. I really  
14                  need to take those locust trees out under some  
15                  sort of thinning program and send them off to  
16                  some other biomass program, hopefully fuels  
17                  for schools or something along those lines.

18                  Folks, I spent the last three  
19                  months since I retired from my past life  
20                  learning about this category, and there is a  
21                  lifetime of more information to learn.

22                  I have a few experiences today

1           that I think are going to be useful to the  
2           USDA. First experience is, I spent the summer  
3           going to the FSA office to register my  
4           farmland. Now that is a little bit of an  
5           exaggeration. But I did take three trips to  
6           the FSA office, and three mailings, and lots  
7           of research to re-register my land in FSA's  
8           eyes, because it had gone fallow. Previous  
9           farmers of that land, a few owners ago, had no  
10          longer registered it. It took the FSA staff  
11          a lot of time. Sometimes there were three or  
12          four people behind the counter helping me.

13                        The take-away thought here is, if  
14          we are going to register land for these  
15          programs, you need to make sure the folks at  
16          FSA are ready for what is going to happen when  
17          guys like me show up with farmland that hasn't  
18          been in use for quite some time.

19                        I think the real key here is that  
20          we need markets for biomass both for  
21          cellulosic ethanol, bioheat, but we really  
22          also need some alternative markets. No

1 farmer, no one in my family - I come from a  
2 farm family - no one will grow a product that  
3 can't be sold. Only gardeners do that. I  
4 learned last week of work that Michigan State  
5 University is doing called ammonia fiber  
6 explosion. This is wonderful work. This work  
7 will allow materials like switchgrass to be  
8 made more palatable both for cellulosic  
9 ethanol production but also for animal feed.

10 And a key thing that struck me  
11 when I heard the speaker last week was, that's  
12 a great thing. A farmer now knows he has a  
13 market for this switchgrass, to the  
14 neighboring dairy operation. Not just some  
15 proposed cellulosic ethanol plant.

16 But what was key for me when I  
17 read through the act, and what I wanted to  
18 mention here today, is that the Secretary has  
19 some discretion in reduction to payments,  
20 reduction in payments for alternative delivery  
21 locations for biomass. I would urge that  
22 anything that goes through an intermediate

1 process that makes it suitable for biomass  
2 should not be punished.

3 I want to envision a world where  
4 there are not just big cellulosic ethanol  
5 plants that require hundreds of acres of  
6 storage, but that there are also intermediate  
7 densification or hop-off points. I think this  
8 is very important to our business.

9 And near Penn State, some of the  
10 people at Penn State have told me that they  
11 envision a model where a town just down the  
12 road from my farm will have a hop-off point  
13 where they can aggregate switchgrass or  
14 miscanthus or whatever it is together, and  
15 densify it, then it could be shipped by rail  
16 to collection points closer to metropolitan  
17 areas.

18 I think it's very important that  
19 these intermediate densification points, or  
20 shipping points, or way points, or whatever  
21 you want to call them, they really should have  
22 all the positive benefits of the act, that a

1 destination point would have.

2 We need a lot of implementation  
3 assistance. I learned a lot planting my  
4 switchgrass. We really need to spend a lot of  
5 time telling farmers how this is done. I  
6 heard talk earlier of farmer-to-farmer  
7 dialogue. It's great. Farmers really want to  
8 see other farmers doing this.

9 I learned from field days. We  
10 need to foster shared skills and community  
11 support, though. Some of the equipment is  
12 necessary for switchgrass is specialty, no-  
13 till drills. I had to have a guy come in from  
14 the next state to plant my switchgrass. There  
15 are specialty high density bailers that are  
16 required.

17 These are things that small  
18 farmers like me, and even some larger farmers,  
19 will not have - and we need cooperative  
20 arrangements, we need pools, we need places  
21 for people to borrow or rent these materials.

22 I mentioned when I began that I

1           have some woody forest area. There are a lot  
2           of services that are needed there too. I  
3           would be thrilled if someone would come and  
4           cut down all the locust trees in my woods and  
5           haul them away and actually make my forest  
6           better. But there really is no one to do  
7           that. But in Pennsylvania, logging operations  
8           revolve around larger trucks with booms that  
9           haul away large logs.

10                         We need some services, some  
11           cooperatives or collectives, to do this kind  
12           of thing. We need a lot of education.

13                         I've been to a couple of seminars  
14           now talking about how to thin forests, what  
15           trees are desirable and what aren't. We need  
16           more seminars like that. That is going to be  
17           a key thing.

18                         And the closing point in that  
19           education category is, I've already seen  
20           opposition to community-based wood heat or  
21           biobased programs. We need to educate our  
22           citizenry that it's acceptable to have a plant

1       - I hate to say it - in their back yard to  
2       produce energy locally. This is very  
3       important.

4                   My last point before I get to my  
5       quick conclusion is, I think we need some  
6       reasonable forest stewardship requirements.  
7       I've always thought that forest stewardship is  
8       a wonderful thing. I love the forest. I love  
9       the fact that the forests have come back after  
10      years of decline. But most of the existing  
11      forest stewardship programs are dependent on  
12      forest owners having 10, 20 acres plus. There  
13      are going to be a lot of small forest owners  
14      who would like to participate in this  
15      category, and they may not have the  
16      wherewithal to participate in those  
17      certification programs. We will need  
18      alternative checks and balances that will  
19      allow a guy with five acres to participate in  
20      the biomass energy potential of our country.

21                   Lastly, just a pitch, we need more  
22      communication, farmer to farmer, rancher to



1           rancher, logger to logger. That's really what  
2           my new business is about. I urge everyone in  
3           this room, I urge everyone at USDA, we have to  
4           do a lot better job.

5                        Outside of people in this room,  
6           this whole biomass energy business is unknown.  
7           When I talk to people I know about what I'm  
8           doing, they are like, where did this come  
9           from? I've never heard of such a business.  
10          We need to get the message out; that's perhaps  
11          the most important task of everything that we  
12          have ahead of us. Thank you.

13                       MODERATOR ORTIZ: Thank you.

14                       Last presenter will be Mr. Jesse  
15          Caputo.

16          JESSE CAPUTO, ENVIRONMENTAL AND ENERGY STUDY  
17          INSTITUTE

18                       MR. CAPUTO: Hello, my name is  
19          Jesse Caputo. I'm with the Sustainable  
20          Biomass and Energy Program at the  
21          Environmental and Energy Study Institute here  
22          in D.C.

1 I'd like to thank you for the  
2 opportunity to come here and give ESI's  
3 viewpoint on several of these programs. And  
4 because I'm last I will try and be brief.

5 The first program that I'd like to  
6 comment on is Section 911, the biomass crop  
7 assistance program.

8 We see BCAP as being a very  
9 important solution to a very pressing problem.  
10 The fact that investors are equally unwilling  
11 to invest in feedstocks before facilities are  
12 built, as they are to invest in facilities  
13 before there are feedstocks; the so-called  
14 chicken and the egg problem that somebody  
15 mentioned.

16 BCAP offers needed incentives and  
17 assurance to farmers and foresters to produce  
18 these feedstocks. This is an urgent problem,  
19 and it is very important that this program be  
20 implemented strongly and quickly, in time for  
21 the 2009 planting season if possible.

22 I would also like to stress the

1 importance of a robust outreach program to  
2 ensure widespread interest and participation  
3 from the very beginning. Also, because a  
4 specific funding level has not been authorized  
5 for this program, it is especially important  
6 that funding for this important program is  
7 vigorously pursued in the budget request  
8 process.

9 A few additional comments and  
10 suggestions. A clarification on the  
11 definition of crops, agriculture, and  
12 agricultural land is needed. In order to  
13 develop a reliable, sustainable supply of  
14 feedstocks in all regions of this country it  
15 is important that we incentivize the use of a  
16 diverse range of feedstocks produced on a  
17 diverse range of lands. It is important that  
18 BCAP encompasses the production of short  
19 rotation woody crops, including willow and  
20 poplar. It is important that fallow and  
21 abandoned agricultural lands are eligible  
22 where that is appropriate. And it's equally

1 important that residues from agriculture and  
2 forestry are eligible where they are  
3 appropriate.

4 Residues including residues from  
5 Title I crops for instance should be  
6 considered a separate eligible crops for  
7 collection, harvest, storage assistance  
8 grants.

9 In subsection (C)(2)(b)(6), the  
10 Secretary is directed to consider the impact  
11 on soil, water and related resources when  
12 selecting projects. The importance of this  
13 provision cannot be overstated. The final  
14 rule should favor projects that enhance water  
15 sheds, preserve soils, promote biodiversity,  
16 and utilize appropriate feedstocks and  
17 sustainable management practices.

18 As for nonindustrial private  
19 forest land we recommend that priority be  
20 given to those projects that emphasize  
21 management for a full suite of environmental  
22 goods and services, including biodiversity,

1 wildlife habitat, and watershed function.

2 We would especially discourage  
3 funding projects under this program that  
4 convert these nonindustrial private forests to  
5 woody plantations, monocultures, or  
6 agricultural crops.

7 I'd also like to comment a little  
8 bit about Section 9012, the forest biomass for  
9 energy program. This is an incredibly  
10 important program. Because we all know that  
11 woody biomass is an abundant, valuable and  
12 available feedstock. However, there are many  
13 barriers to harvesting and using this woody  
14 biomass in a way that is both sustainable and  
15 cost effective.

16 The Section 9012 program will  
17 provide much needed funding to researchers and  
18 innovators helping to develop technology,  
19 processes and methodologies to improve the  
20 efficiency, effectiveness, and sustainability  
21 of this resource.

22 In considering applicants for this

1 program we hope that priority will be given to  
2 those projects that seek to improve best  
3 management practices; minimize negative  
4 environmental impacts; and find ways to  
5 utilize woody biomass that will complement a  
6 wide range of forest stewardship objectives,  
7 including habitat management, timber stand  
8 improvement, hazardous fuels reduction,  
9 biodiversity and others.

10 We also hope that priority is  
11 given to projects that seek to understand the  
12 economics of forest biomass, and improve the  
13 cost effectiveness of using logging residues.  
14 In an ongoing series of discussions the ESI  
15 has held with stakeholders we have  
16 consistently found that poor economics is the  
17 primary barrier to the use of such forest  
18 biomass in most regions of the country. This  
19 is one area where additional research dollars  
20 could be especially effective.

21 Finally I'd like to make a few  
22 comments about the Section 9013 community wood

1 energy program. This is another program that  
2 ESI is very excited about. While providing  
3 funding for communities to do feedstock  
4 assessments, draft community wood energy  
5 plans, and install community wood energy  
6 systems, this program focuses resources on  
7 some of the most important aspects of  
8 environmental sustainability: small-scale  
9 projects; full assessments; and a strong  
10 community focus.

11 This program has a lot of  
12 potential, and I would encourage it to be  
13 implemented and ramped up as quickly and as  
14 robustly as possible.

15 Finally a couple of specific  
16 suggestions for this program. Community wood  
17 energy plans include an assessment of  
18 available feedstocks. It is important that  
19 availability is understood to mean much more  
20 than a simple forest inventory. The  
21 availability of woody biomass is dependent on  
22 infrastructure, geography, environmental

1           considerations, and the willingness of forest  
2           owners to harvest and sell their material.

3                       I would recommend the coordinated  
4           resource offering protocol, CROP, as an  
5           example of one tool that can be used to do  
6           feedstock availability assessment that takes  
7           all of these factors into account.

8                       I would also suggest that full  
9           consideration be given to woody biomass  
10          resources, other than those from forestry -  
11          urban wood residues, mill waste, industrial  
12          residues, et cetera.

13                      The community wood plan also  
14          includes an assessment of the long-term  
15          feasibility of supplying and operating a  
16          community wood energy system. It is essential  
17          that this assessment include the full suite of  
18          environmental considerations, including how  
19          woody biomass use will affect forest health,  
20          biodiversity, wildlife habitat, and watershed  
21          functioning in the community.

22                      Subsection (B)(2)) directs the



1 Secretary to consider other conservation and  
2 environmental criteria in selecting projects.  
3 Specifically we feel that priority should be  
4 given to those projects that will help achieve  
5 forest stewardship objectives, such as timber  
6 stand improvement or hazardous fuels  
7 reduction.

8 In addition ESI wants to recommend  
9 the consideration also be given to the  
10 greenhouse gas and climate change  
11 ramifications of each project, giving priority  
12 to projects that replace coal and oil over  
13 those that replace natural gas.

14 Similarly, the end use of residues  
15 that would not otherwise be used should be  
16 considered, because residues that end up in  
17 landfills or getting burned in wildfires or in  
18 open burns also reduce - release methane and  
19 carbon dioxide and other greenhouse gases.

20 Thank you again for allowing us  
21 the opportunity to make these comments, and we  
22 look forward to the rulemaking for the entire

1 title.

2 MODERATOR ORTIZ: Thank you. That  
3 is our last speaker, and that closes out  
4 Section 9011.

5 And I will turn the meeting back  
6 over to Under Secretary Dorr.

7 CLOSING REMARKS - UNDER SECRETARY DORR

8 MR. DORR: Thank you, Febe. And  
9 thank you to all of you who have taken the  
10 time out of your schedule today to make these  
11 presentations.

12 I would make the observation that  
13 we are actually much ahead of schedule, and in  
14 discussion with a number of my colleagues, we  
15 have decided that if there are any of you in  
16 the audience who would care to make a comment  
17 or two, we would encourage you to come up  
18 front. We would like to do it from this  
19 podium, since we are recording and taping  
20 these comments so that we may work them  
21 through our system.

22 But if there is anyone who would

1           like to come up and make an observation or  
2           comment, I would encourage you to do so now.  
3           Is there anyone who is interested in doing  
4           that?

5                         It appears not, but if you have -  
6           I am going to take a couple of minutes, so if  
7           you have a second thought, I'd encourage you  
8           to do it.

9                         I would also like to turn to our  
10          panelists, again thanking them for spending  
11          all the time they have today, and also ask if  
12          they have any observations they may care to  
13          share briefly with the audience that is still  
14          here.

15                        Floyd, come on up here.

16                        MR. GAIBLER: Okay. Thank you,  
17          Tom. I just wanted to make one comment today  
18          with respect to BiCAP, because I had noted  
19          several speakers had raised concerns with  
20          respect to the funding with this program. And  
21          I just wanted to correct here for the record  
22          that in the case of the BiCAP program, the

1 statute requires such sums as necessary. This  
2 is mandatory funding from the Commodity Credit  
3 Corporation. So this is not a project or a  
4 program that does lack funding.

5 The other point I would make on  
6 this particular program is that like some of  
7 these other programs, they do not have  
8 expedited rulemaking authority, so we will  
9 have to issue a proposed rule. And in this  
10 particular program we are going to have to do  
11 some environmental impact analysis, which will  
12 have to be incorporated into that rulemaking.

13 So this, without the expedited  
14 rulemaking it will take time. But this is a  
15 new program, so we are going to have to put  
16 this together very carefully.

17 MR. DORR: Thank you. That is an  
18 issue that had come up repeatedly. Are there  
19 any other comments? Joe or Gary or Robb?

20 If not, I learned a long time ago  
21 that at the end of a long arduous day the last  
22 thing you want to do is stand between your

1 audience and their 5:00 o'clock toddy or the  
2 end of the day or the exit or whatever the  
3 case might be.

4 But let me assure you that this  
5 has been a very helpful series of discussions  
6 for us. Your contributions are remarkably  
7 insightful, in the sense that although I think  
8 we had thought about a number of them, what  
9 you have done, and the ones, and the  
10 presentations that I have heard, and the  
11 discussion I've heard today, you've expanded  
12 on them in a way which I think gives us  
13 greater insight.

14 I want to remind you that - and  
15 for any of those who are perhaps listening in  
16 on this as well - that we are keeping the file  
17 open for another 15 days. We will be  
18 receiving comments for another 15 days before  
19 we begin to then hunker down and do the hard  
20 work, the arduous work, of developing all the  
21 rules and the regs and the proposed rules and  
22 everything else that we need to do to comport

1 with rolling out the program.

2 I think it's important to know,  
3 however, that the secretary has made it very  
4 clear that although this is coming to the end  
5 of an administration, that he has no intent  
6 that we slow walk this. And so there is going  
7 to be every effort made to aggressively work  
8 these through the process in ways that comport  
9 with the intent of Congress as well as those  
10 of our constituents as we simultaneously  
11 approach trying to do a good job.

12 And I have a couple of other very  
13 quick observations, and that is the following.  
14 It is clear to me that as we have evolved  
15 through the development of these programs, and  
16 these insights into renewable energy,  
17 particularly biobased renewable energy, that  
18 we have made a remarkable amount of progress  
19 over the last several years, and that this  
20 industry is largely, at least in retrospect to  
21 where we were in 2002, much further down the  
22 commercialization trail than we were in 2002.

1           This is much broader than trying to embark on  
2           a basic research strategy.

3                         There are clearly developmental  
4           and precommercialization issues that have to  
5           be dealt with. But I think it's important  
6           that we all recognize that this industry is  
7           clearly becoming one that has technologies  
8           that in and of themselves make it competitive  
9           in the long run, but that we have to obviously  
10          work our way through this what we all call and  
11          know as the valley of death.

12                        I also think that in doing this  
13          that it's important to remember that the goal  
14          at least from my standpoint, is that we make  
15          these decisions based on economics and  
16          scientific fact, as opposed to anecdotal,  
17          subjective, or perhaps just general anecdotes  
18          that perhaps don't reflect the state of the  
19          industry and where we're at.

20                        And I think that's important to  
21          remember. Because as I have said repeatedly,  
22          the extraordinary nature of this country is

1 the fact that we do have a constitution that  
2 is based on rule of law; that is based on  
3 contracts; and it is based on legal  
4 obligations that we can enforce. And if we  
5 adhere to that we will do things that are  
6 constructive both for the environment and  
7 ultimately for the development of alternative  
8 energy resource.

9 So with that, I would again like  
10 to thank all of you for taking the time out of  
11 your schedules to join us. I sincerely hope  
12 that we have met your expectations to some  
13 extent or another. We look forward to your  
14 further comments.

15 And clearly, do not hesitate to  
16 contact any of these folks if you feel that  
17 there are things that we are not  
18 understanding, or that we need additional  
19 insight into.

20 So again, thank you very much,  
21 have a safe day home, and we look forward to  
22 working with you all in the future.



1 (Applause.)

2 MODERATOR ORTIZ: This concludes  
3 the session.

4 (Whereupon, at 2:52 p.m. the  
5 proceeding in the above-entitled matter was  
6 adjourned.)

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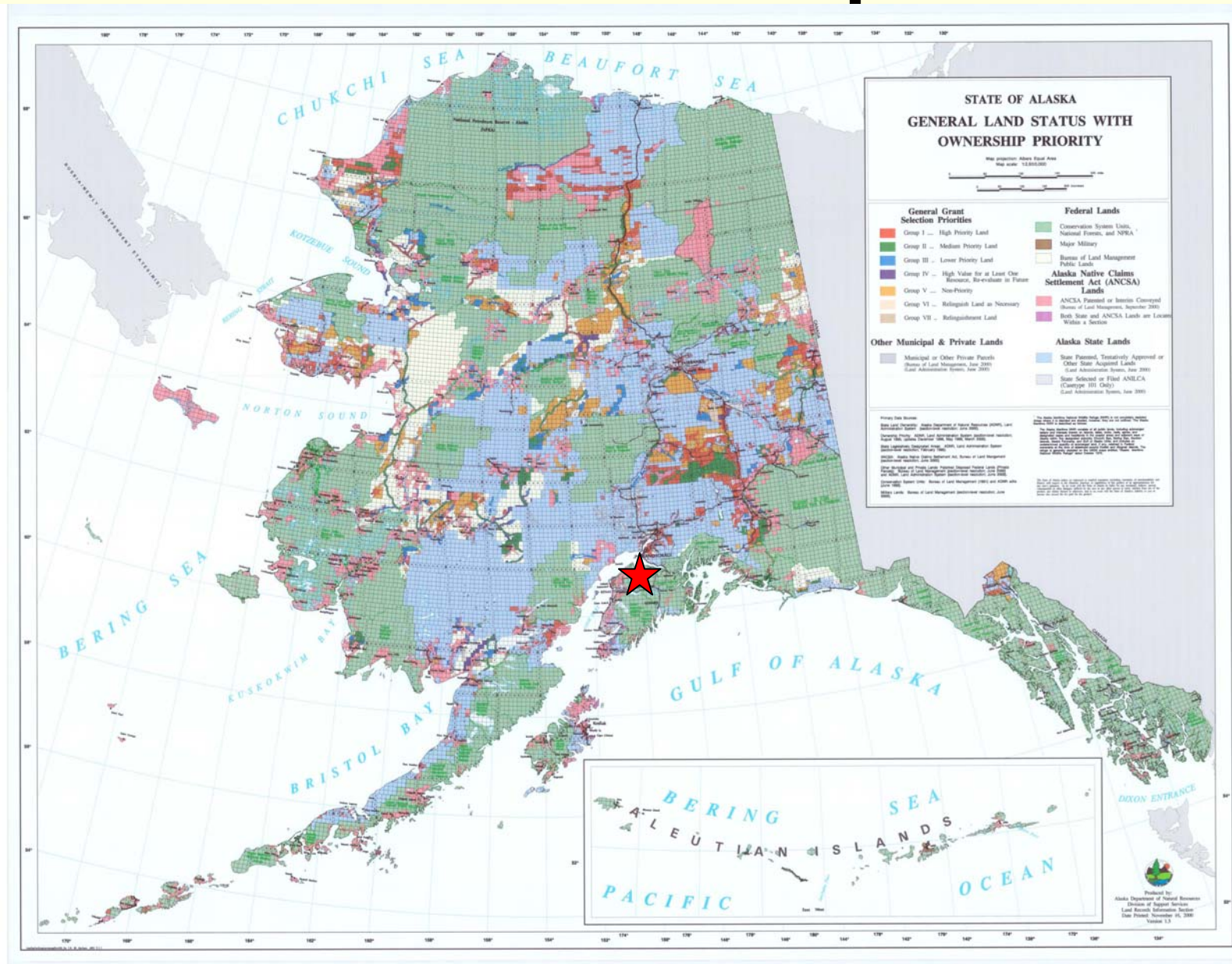
# Energy Projects In And Around Tyonek Native Corporation Lands

Tyonek Native Corporation  
1689 C Street, Suite 201  
Anchorage, Alaska 99501

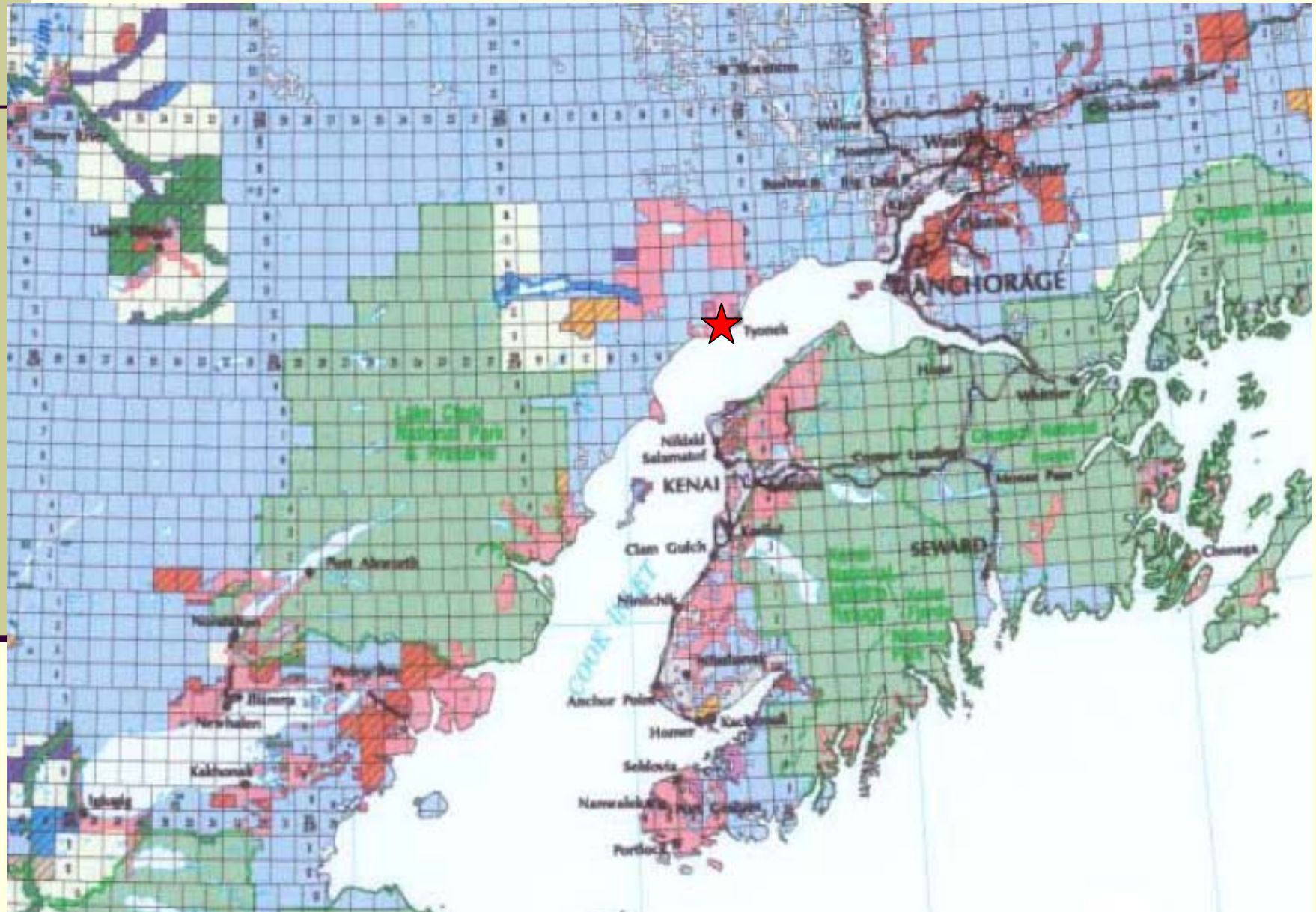
*September 2008*



# Alaska Land Ownership



# South Central Alaska- Cook Inlet



# Cook Inlet / South Central Alaska

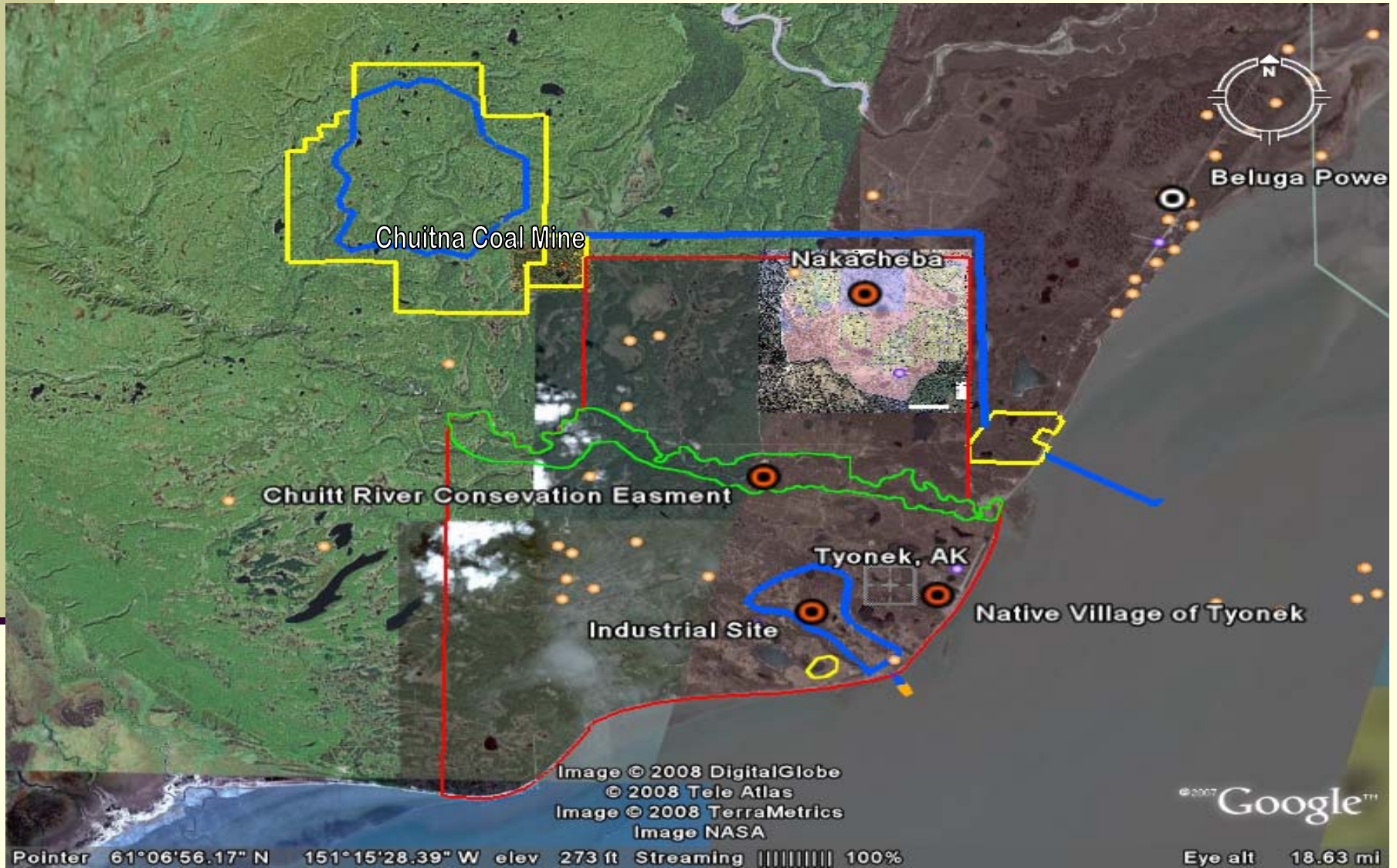


# Tyonek Native Corporation Lands

---

- Former Dena'ina reservation.
- Only Athabascan whaling community.
- Under '71 ANCSA, subsurface to Regional Corporation, lands to Village Corporation.
- Gated community of 197 residents.
- 45,000 acres around Tyonek.
- Off road system, living costs high.
- Gas fields depleted that supply urban energy.
- Energy alternatives impact Tyonek.

# Tyonek Area Lands Activity





# West Cook Inlet Energy Projects

---

■ Chuitna Coal	600
■ Coal to Liquid & Power Generation	12,000
■ Chakachamna Hydropower	1,750
■ Mt. Spurr Geothermal Power	<u>3,000</u>
<b>TOTAL (millions)</b>	<b>\$ 17,350</b>

# Chuitna Coal

---

- Second-largest coal strip mine in USA?
- Infrastructure permit application is submitted.
- NVT/TNC contracts start 2010 under MOU.
- Potential easements across TNC lands.
- 180-man camp at mine.
- 10,000-foot conveyor across TNC lands to ship load dock.
- Planned 25-year mine life.
- \$600M capital investment.



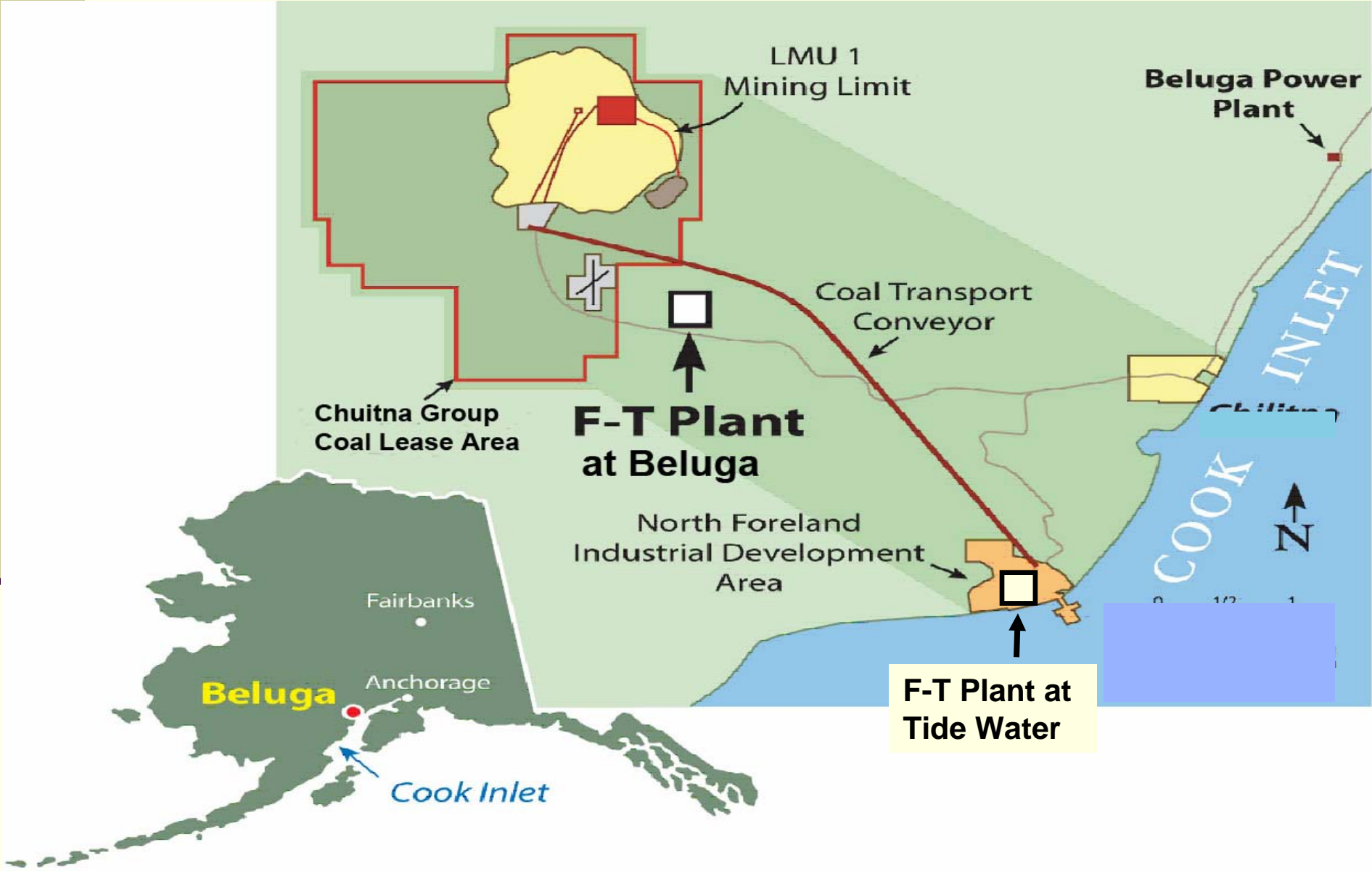
# Coal to Liquid

---

- **Coal gasification/liquid fuels**
- **1,000 acre NFF Port Site**
- **80,000bpd F-T fuel for ready markets**
- **400 MW of waste heat power generation**
- **CO2 sequestration w/EOR**
- **\$ 12 Billion Project**
- **5,000 Construction workers for 5 years**
- **500 Operation staff**
- **Will need a camp or facility base**



# 80,000 bbl/d Coal To Liquids “Beluga CTL Plant” (Mine Mouth or Tide Water)



# Chakachamna Hydropower

---

- 300 MW Power for Railbelt
- \$.05 per KW hour (estimated)
- 3-5 years for studies, permitting
- 5 years construction, complete 2018
- \$2 Billion project
- 40 miles from Tyonek
- Promise to use TNC whenever possible
- 2,000 Construction workers
- 20+ Operations staff

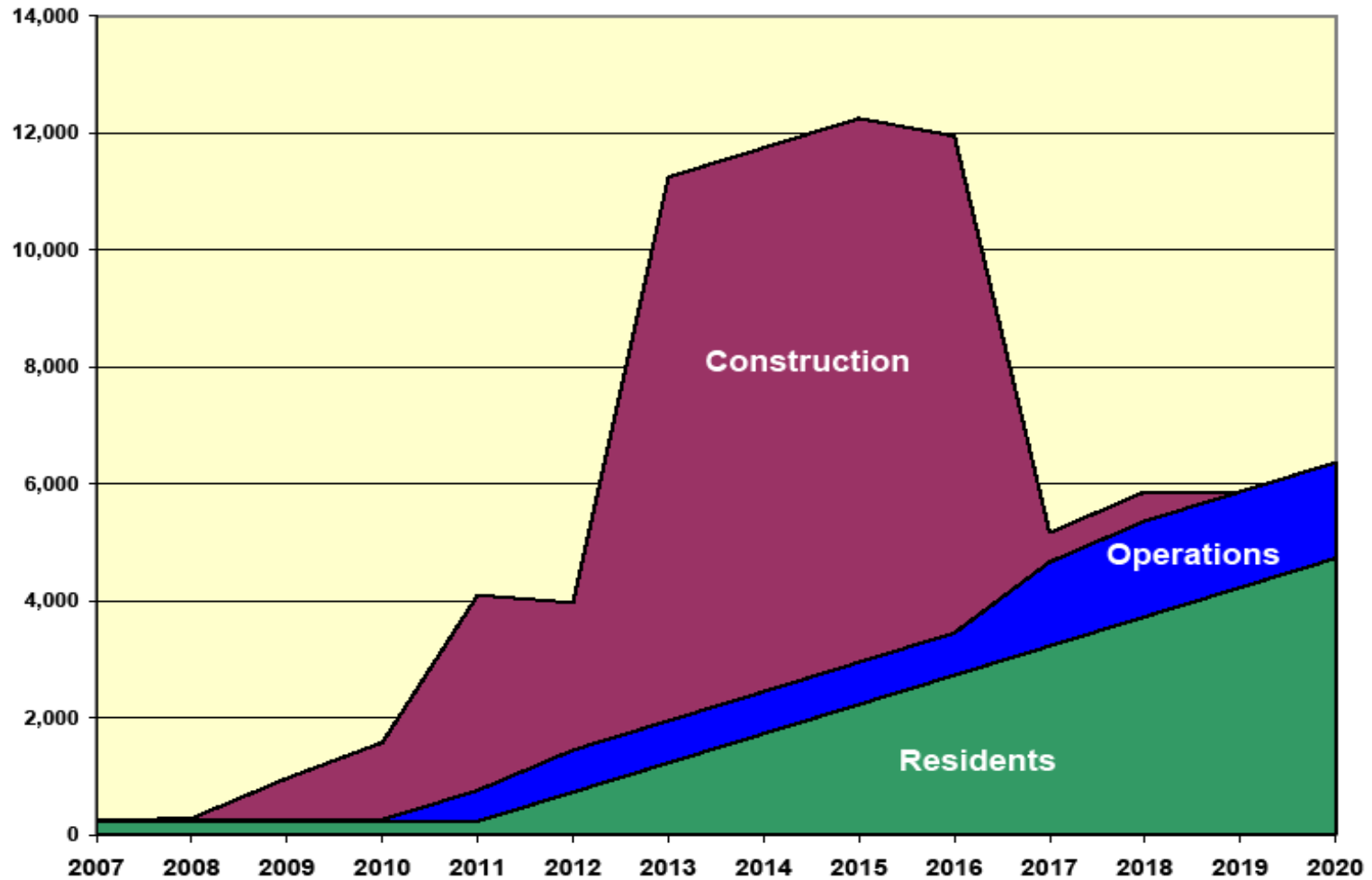
# Mt. Spurr Geothermal Power

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- Bid opening 10 September 2008.
- Two experienced bidders expected.
- Geothermal exploration in 2009.
- 150 MW power for railbelt grid.
- 400 MW for aluminum production with plant on TNC land.
- 5-8 years for project completion.
- \$ 3 Billion project.
- \$.02 per KW hour (estimated)
- 3,000 Construction workers
- 300 Operation staff



# West Cook Inlet Population Projections





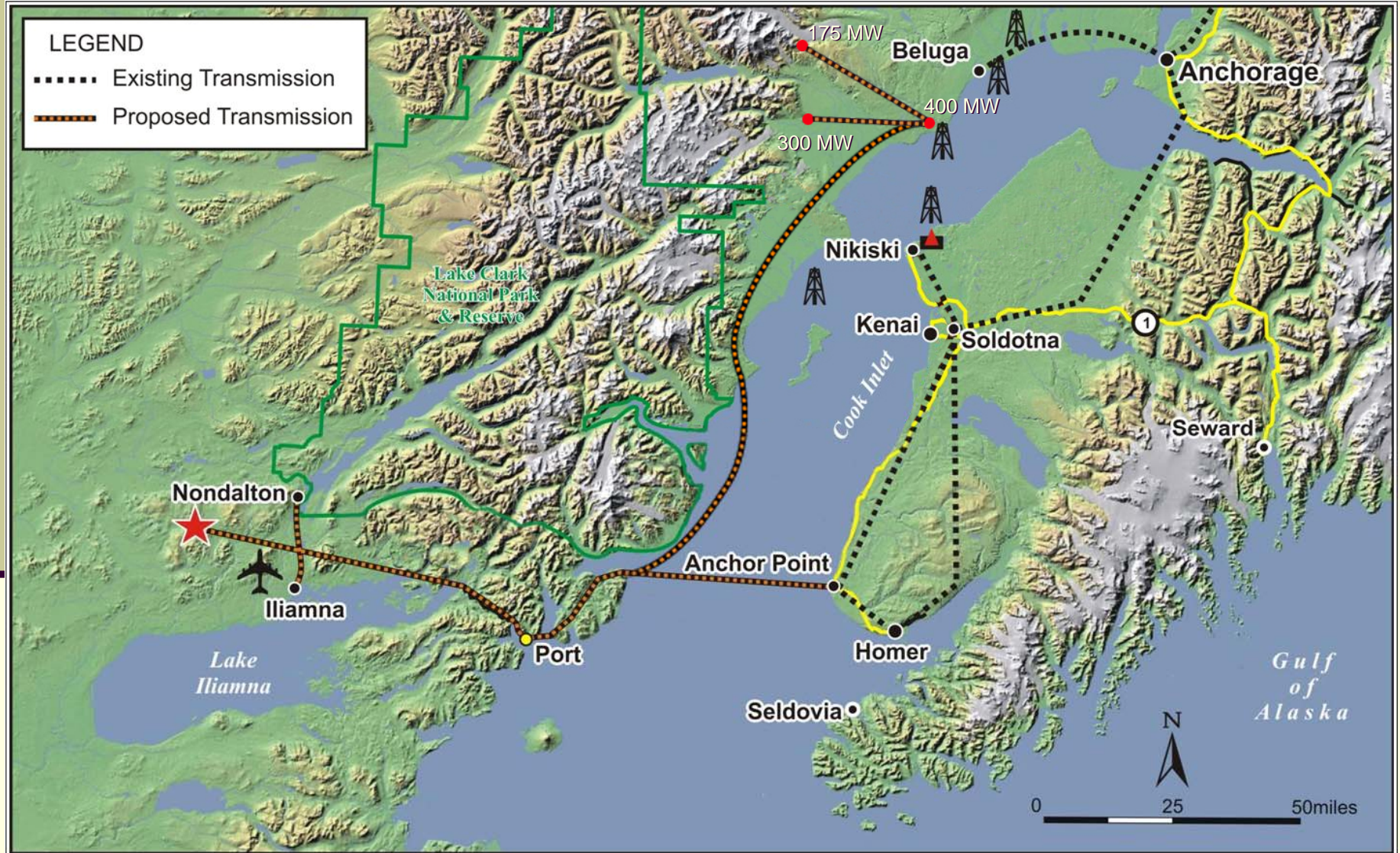
# Tyonek Land Planning Projects

---

■	<b>New Community - 'Nakacheba'</b>	<b>150</b>
■	<b>Conservation Easement of approx 3,000 acres</b>	<b>20</b>
■	<b>1000-acre Industrial Site</b>	<b>-0-</b>
■	<b>North Foreland Port &amp; Facilities</b>	<b>-0-</b>
■	<b>West Susitna Road Access</b>	<b>100</b>
■	<b>Fast Ferry</b>	<b>100</b>
■	<b>Au Port &amp; Community Development</b>	<b><u>500</u></b>
	<b>TOTAL (millions)</b>	<b>\$ 870</b>



# Cook Inlet Power Options





# Questions or Comments?

---

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**General Counsel & CAO**  
**Tyonek Native Corporation**  
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[\*\*www.tyonek.com\*\*](http://www.tyonek.com)

1 (907) 272-0707

# ABENGOA BIOENERGY

## Abengoa Bioenergy Hybrid of Kansas



USDA TITLE IX Energy Public Meeting  
September 4, 2008



Abengoa is a technology company that applies innovative solutions for sustainable development in infrastructure, environmental and energy sectors. It is present in over 70 countries where it operates through its five Business Units: Solar, Bioenergy, Environmental Services, Information Technology, and Industrial Engineering and Construction.

### Industrial Engineering & Construction

With engineering... we build and operate conventional and renewable energy power plants, power transmission systems, and industrial infrastructures



### Environmental Services

With waste ... we produce new materials through recycling, and we treat and desalinate water



### Bioenergy

With biomass ... we produce ecological biofuels and animal feed



# ABENGOA

Innovative Solutions for Sustainability

### Solar

With the sun ... we produce thermoelectric and photovoltaic electric energy



### Information Technology

With information technologies ... we manage business and operational processes in a secure and efficient way

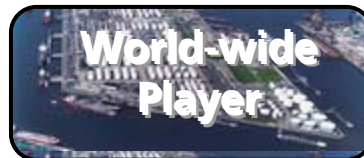


### Focus Abengoa

With social and cultural policies ... we contribute to economic progress and the conservation of the environment in communities where Abengoa is present








Science. Solutions. Service.



- ▶ **Leader in new ethanol technologies**
  - \$480 MM committed to new ethanol technologies, such as lignocellulosic biomass, over the next four years
  - U.S. Department of Energy (\$113.7 MM) and European Union (\$43.5 MM) research grants
  - Improve current conversion technologies
  - Develop biomass-to-ethanol technologies
  - Demonstration programs for ethanol end uses
- ▶ **Technology innovator and provider to third parties**
- ▶ **#1 ethanol producer in Europe: 142 MG actual capacity + 192 MG under construction in 2008**
- ▶ **#5 ethanol producer in US: 198 MG actual capacity + 176 MG under construction in 2008**
- ▶ **142 MG marketed ethanol in EU, 198 MG in US and an additional 100 MG to third parties**
- ▶ **EU: Grain purchases = 43.3 MBu / DGS marketed = 0.5 Mt**  
**US: Grain purchases = 39.0 MBu / DGS marketed = 0.3 Mt**
- ▶ **Customer network: Major oil companies in EU and US: Total, Cepsa, Repsol-YPF, Agip, Shell, Chevron-Texaco, Suncor, Valero, Apex Oil, BP, Exxon, Conoco, Preem, Lyondell, Marathon, Sabic**

# ABENGOA BIOENERGY

## The Global Ethanol Company

				
Cartagena 40 MMGY Since 1999	Coruña 53 MMGY Since 2001	Salamanca 53 MMGY Since 2006	Lacq, FR 66 MMGY Since 2007	Rotterdam 126 MMGY Construction

Prod: production capacity  
Cons: capacity under construction today

Europe - Million Gal/y				
	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Prod:	142	142	208	334
Cons:	66	192	126	

		
York, NE 25 MMGY Since 1994	Colwich, KS 55 MMGY Since 1984	Portales, NM 30 MMGY Since 1997
		
Ravenna, NE 88 MMGY Since 2007	Evansville, IN 88 MMGY Construction	Granite City, IL 88 MMGY Construction

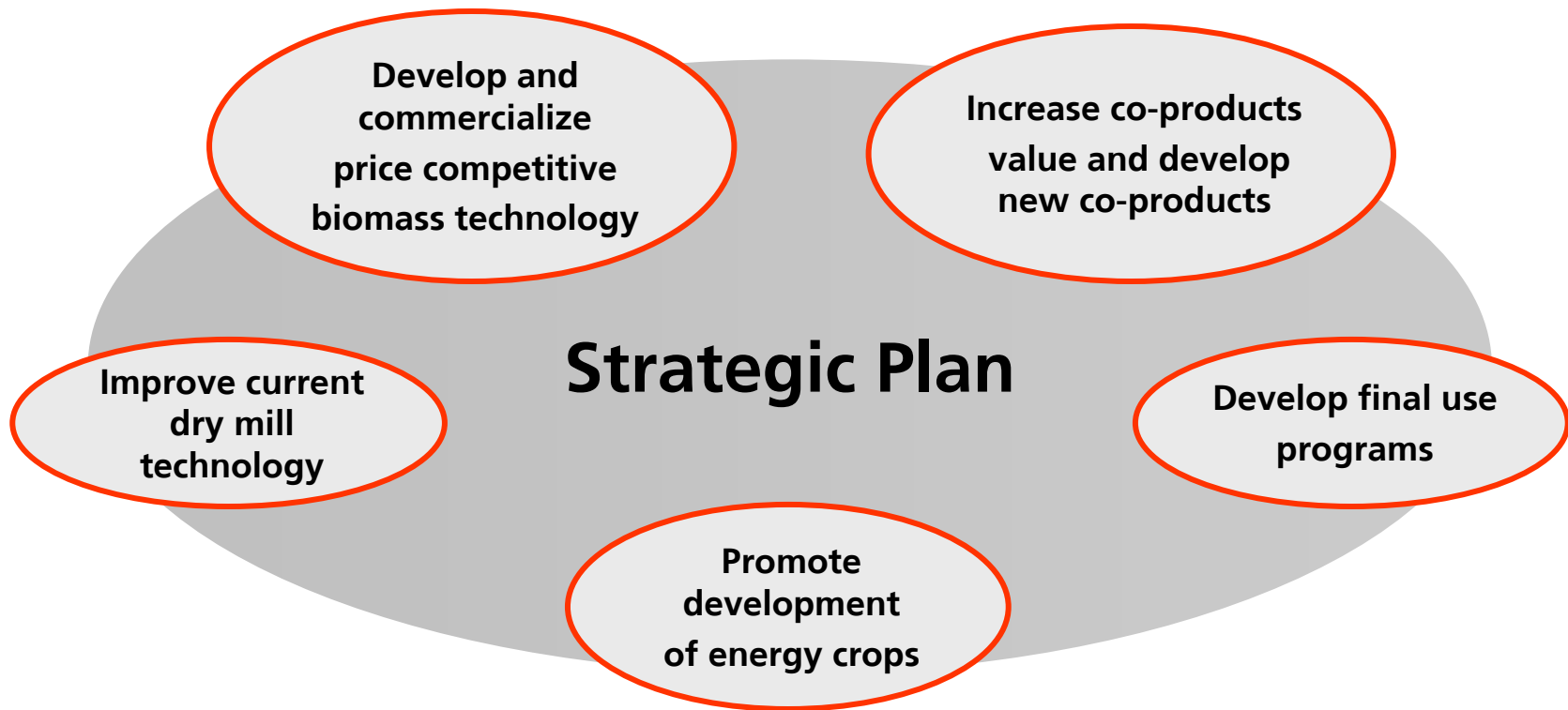


USA - Million Gal/y				
	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Prod:	198	198	198	374
Cons:	88	176	176	


Dedini, SP 6/7 Mt/y Since 2007

### R&D Strategy

Abengoa Bioenergy carries out its R&D through its subsidiary company ABNT.  
More than 50 investigators in Europe and US working in R&D  
Use partnerships, JV's and shareholder equity to identify and develop production technologies and new price competitive applications





- ▶ US Government goal of making cellulosic ethanol cost-competitive with gasoline by 2012
- ▶ Cellulosic ethanol saves even more net energy and results in lower greenhouse emissions than traditional corn-based ethanol
- ▶ Abengoa Bioenergy's partnership with the US Department of Energy (DOE) started in 2003 to develop the technology for Advanced Biorefining of Distillers Grain and Corn Stover Blends.
- ▶ Following their partnership in developing new biomass-based production technologies, US DOE has recently awarded Abengoa Bioenergy with \$76 MM for the construction of the first of a kind commercial facility to produce ethanol from lignocellulosic biomass.

### Abengoa Bioenergy's Biomass Project main features:

- ▶ \$500 MM total investment
- ▶ Hybrid Concept:
  - 12 MGPY of Cellulosic Biofuel based on enzymatic hydrolysis technology
  - 88 MGPY of Advanced Biofuel based on starch technology
- ▶ Biomass gasification energy used in the process → improves the life cycle
- ▶ Start-up of operations in 2011



# ABENGOA BIOENERGY

## Abengoa Bioenergy Hybrid of Kansas (ABHK)



Science. Solutions. Service.

### Abengoa Bioenergy Hybrid of Kansas

- **First commercial facility of Abengoa Bioenergy's Cellulosic Ethanol technology**
- **A \$500 million plus project, supported by a \$76 million grant from the Department of Energy plus an equity commitment from Abengoa Bioenergy**
- **Project start of construction, 2nd Half of 2009, operation by 2011**
- **Project Engineering and Development ongoing since 2007, over \$20 million spent to date with a staff in excess of 150 individuals (direct and contract)**
- **Hugoton Kansas site selected for project based on local attributes:**
  - **Local Grain and Feed market**
  - **Significant supply of biomass**
  - **State and local support for the project**
- **Key first project in the successful growth of Abengoa's Cellulosic Ethanol Business and the Nation's Cellulosic Ethanol Industry**

### ABBK Biomass Plant

154,000 dry tons of biomass



12 MMgy Cellulosic Ethanol

245,000 dry tons of biomass



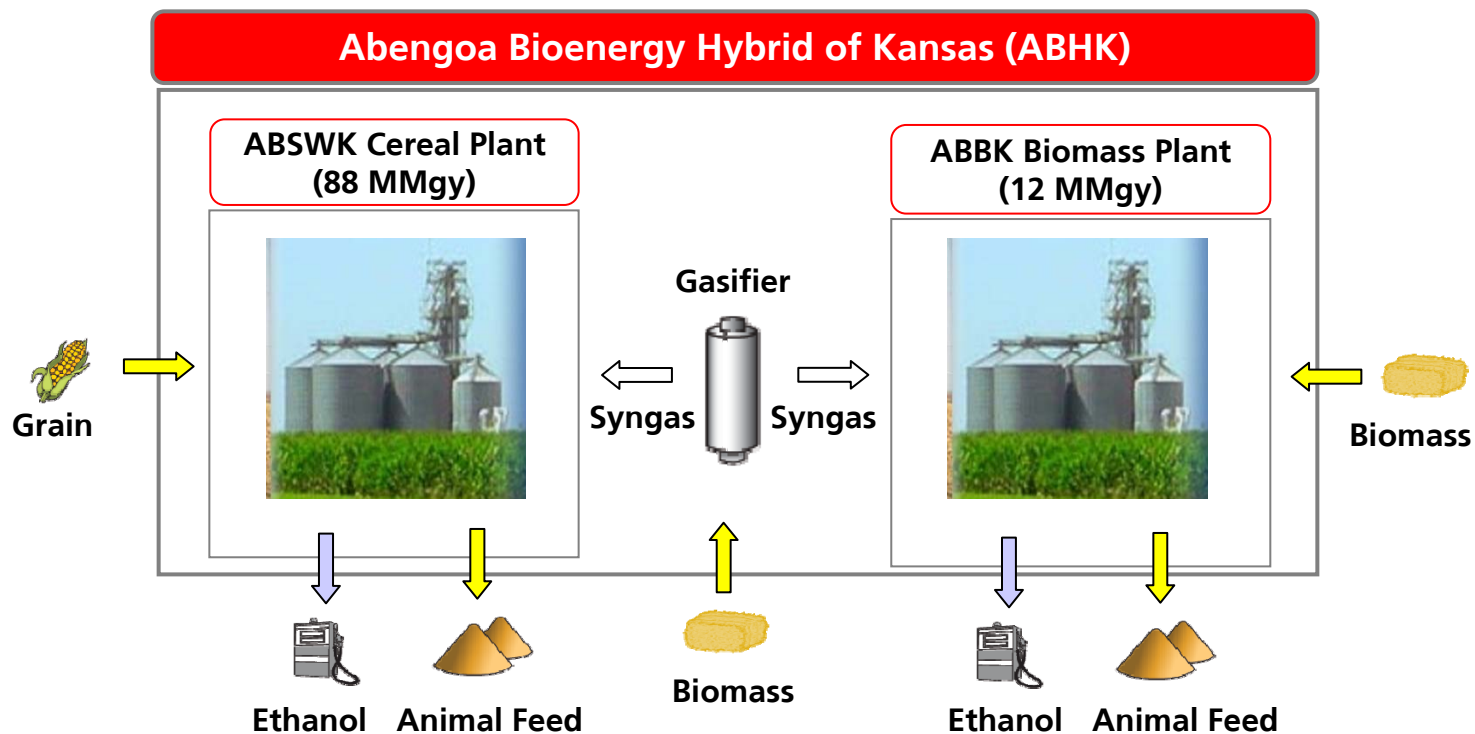
Synthesis Gas to replace Natural Gas

### ABSWK Cereal Plant

32 million bushels of grain



88 MMgy Ethanol





### Cellulosic Ethanol Challenges

- Cellulosic Ethanol today is entering a commercial demonstration phase but is still not cost competitive with 1<sup>st</sup> generation biofuel technologies.
- There is a higher level of risk associated with Cellulosic Ethanol technologies that can be significantly reduced after completion of the demonstration phase.
- The development of a sustainable and significant supply of biomass is required for Cellulosic Ethanol to become commercially viable.
- Key component of the creation of a sustainable cellulosic ethanol industry is getting through the demonstration phase, the first wave of commercial facilities.
- With higher levels of risk and cost, Cellulosic Ethanol technology may struggle to attract investment and financing.

### Section 9003, Biorefinery Assistance

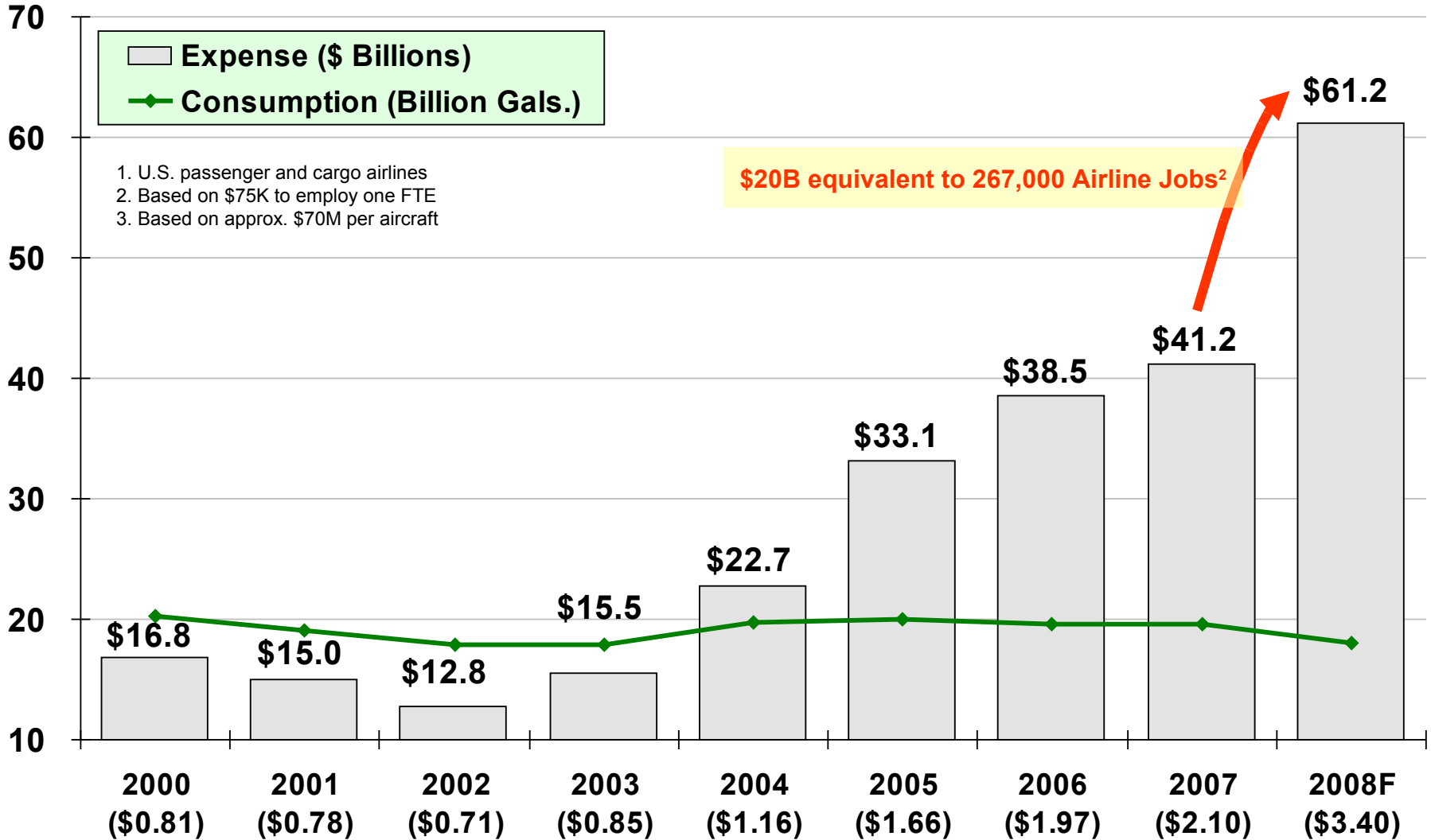
- **Loan Guarantee Program could allow for more favorable financing terms, such as a higher debt to equity ratio, lower interest rate, and longer principal repayment period**
- **Guarantee would insure a high subscription rate to the loan syndication**
- **Potential for significant improvement in securing necessary loans at attractive rates for this project, insuring overall viability, and ultimately leading to project construction**
- **How to maximize program effectiveness:**
  - **Availability in early 2009**
  - **Loan guarantee level of 100% OR**
  - **Allow stripping of guarantee debt from non-guarantee debt**
  - **Prioritize awards for projects with highest probably of success, both technically and financially**

### Section 9011, Biomass Crop Assistance Program

- **Need for a long term supply of reliable biomass critical for investing and financing, BCAP has potential increase likelihood of success**
- **BCAP could assist in starting facility residues and converting to dedicated energy crops.**
- **How to maximize program effectiveness:**
  - **Include the cost of preparing land in establishment costs for perennial crops**
  - **Allow for an early commitment by USDA for assistance, prior to biomass production**
  - **Allow for third parties performing collection, harvest, storage, and transportation to qualify for support under section (d)**

# 2008 Jet Fuel Expense<sup>1</sup> Will Break 2007 Record

Expense (Excl. Taxes and Into-Plane Fees) Could Exceed \$61B on 18B Gallons

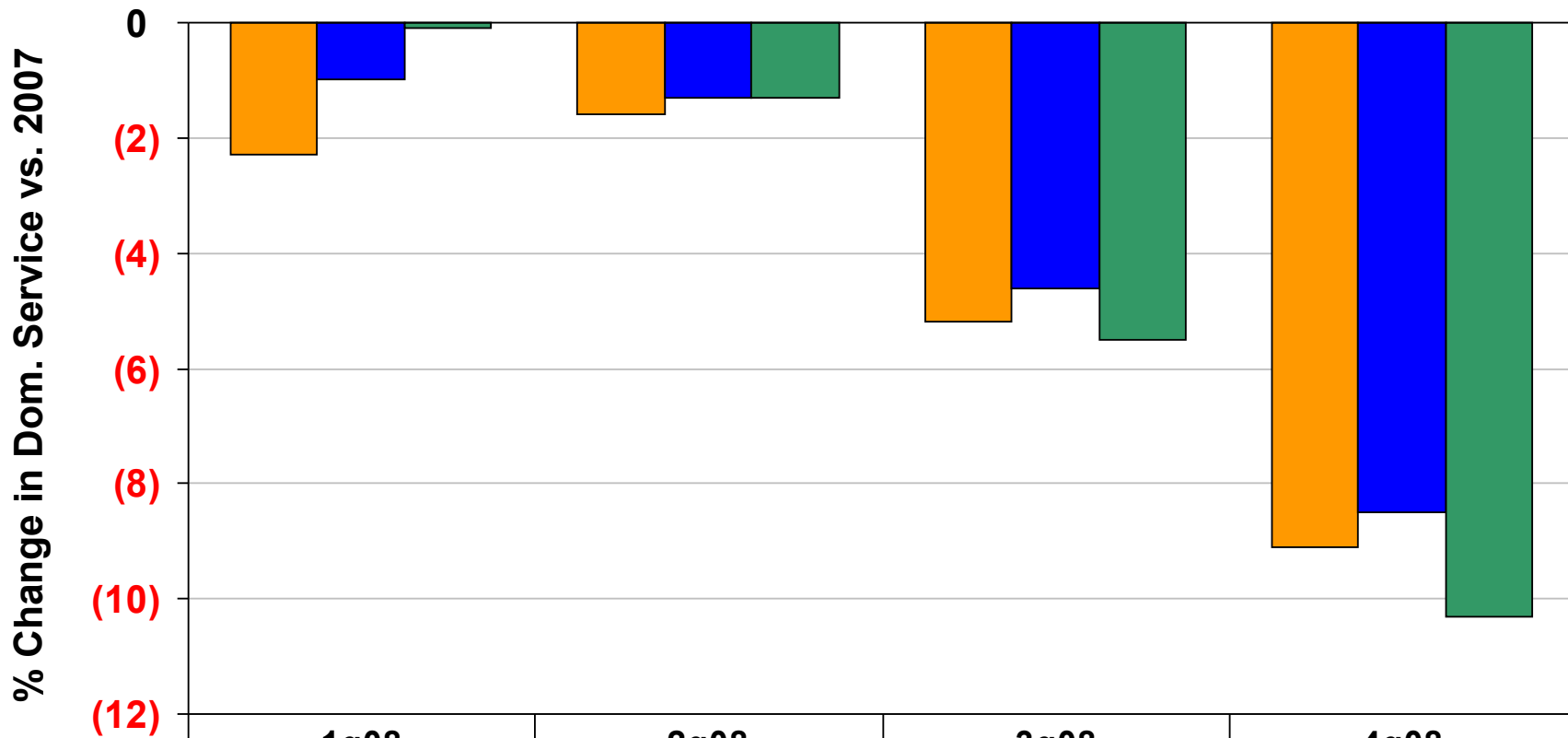


Note: Value in parentheses below year is average price paid per gallon excluding taxes, into-plane fees, pipeline tariffs and hedging costs

Sources: ATA, Energy Information Administration, Department of Transportation

# Soaring Fuel Prices Forcing Industry Contraction

Reduction in Domestic Route Frequency and Seating Capacity Reverses 2007 Trend

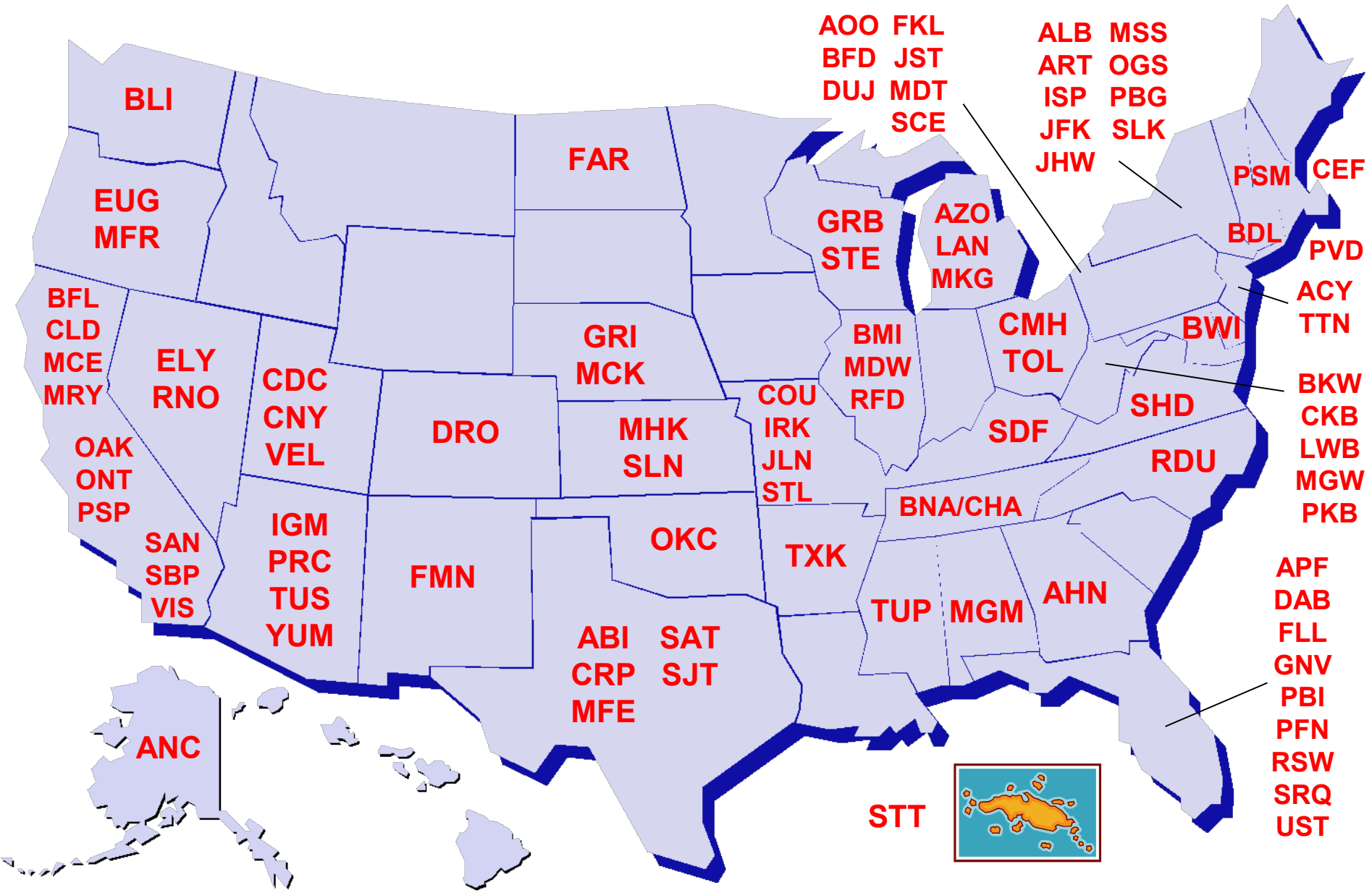


	1q08	2q08	3q08	4q08
Flights	(2.3)	(1.6)	(5.2)	(9.1)
Seats	(1.0)	(1.3)	(4.6)	(8.5)
ASMs*	(0.1)	(1.3)	(5.5)	(10.3)

\* An available seat mile (ASM) is one seat flown one mile and is the standard unit of capacity in the passenger airline sector

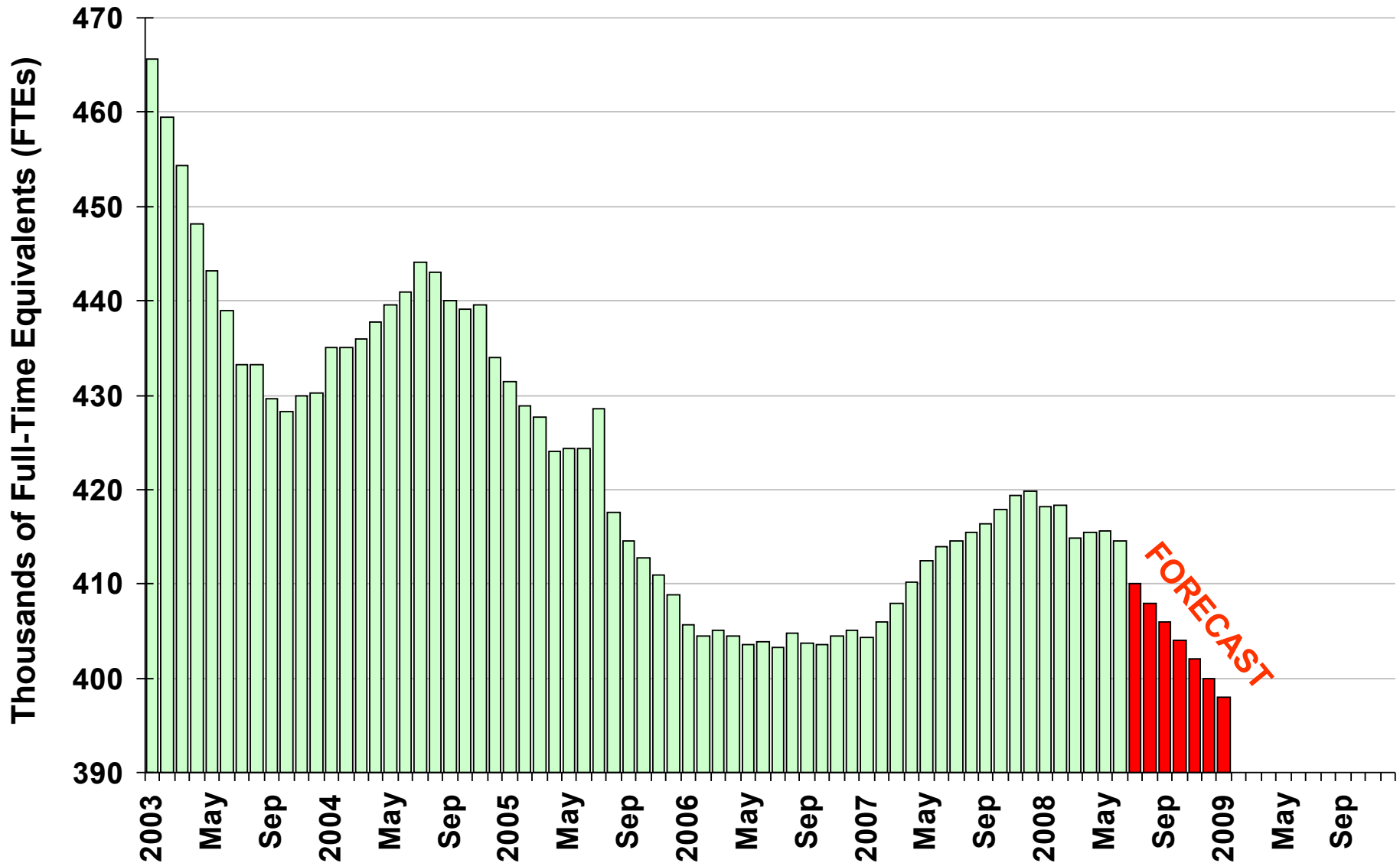
Source: ATA analysis of Seabury APGDat airline schedules as of Aug. 15, 2008

# Dozens of U.S. Airports Have Lost or Will Lose Scheduled Service by at Least One U.S. Airline by the End of 2008



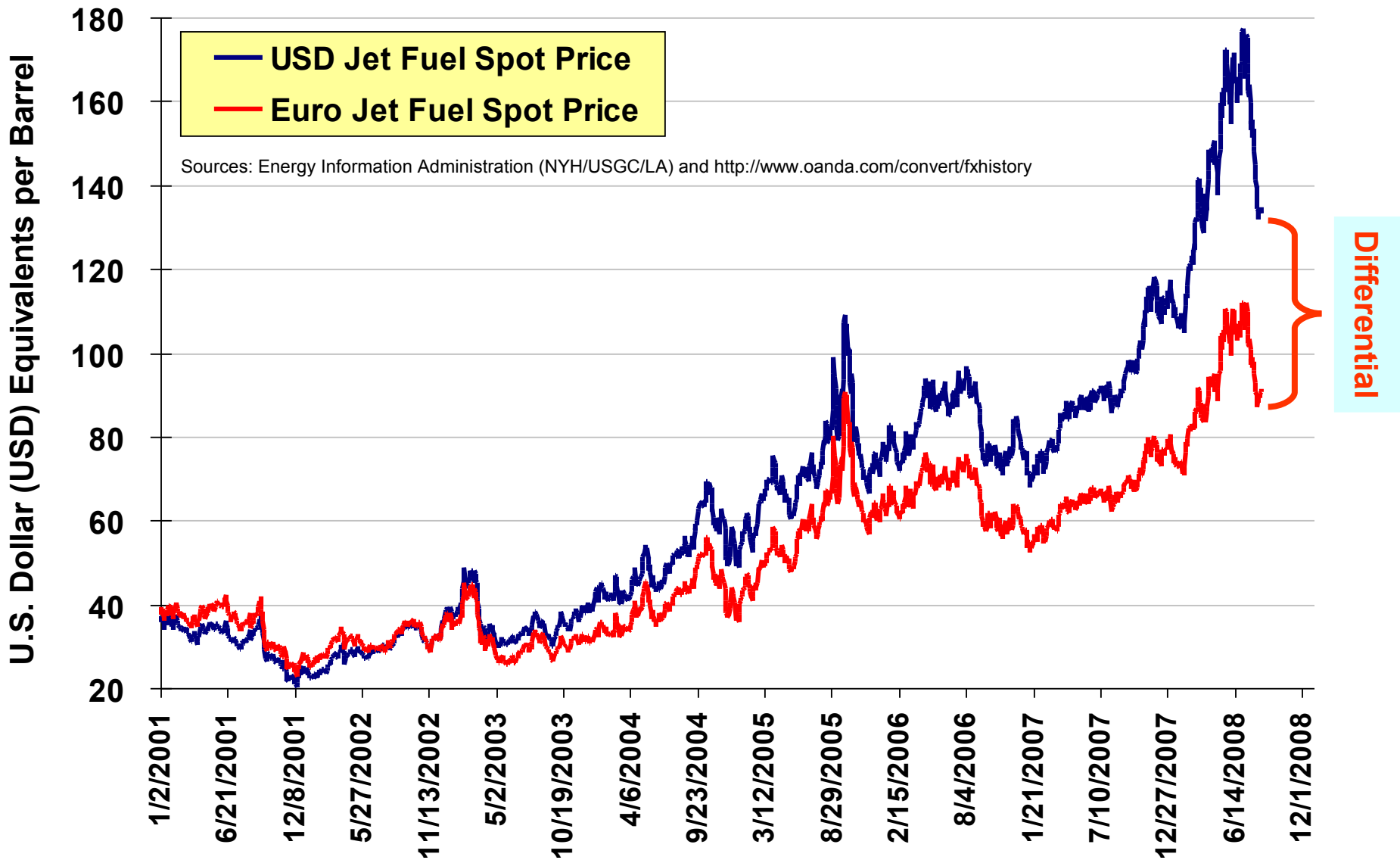
# Soaring Fuel Prices Taking Heavy Toll on Airline Workers

U.S. Passenger Airline Jobs Will Fall Below 400,000 Before 2009



# U.S. Airlines Paying Transatlantic Premium for Jet Fuel

USD-Euro Exchange Rate Has Boosted Fuel Price Differential to 45-60%





# Commercial Aviation – A Lead Customer for USDA Renewable Fuels



Presented to: USDA Rural Development – Public Meeting on Farm  
Bill Renewable Energy Provisions  
Washington, D.C.

By: Richard L. Altman  
Executive Director,  
Commercial Aviation Alternative Fuels Initiative  
(CAAIFI)

Date: 4 September 2008

***“give equal consideration to projects  
....that would perform innovative and  
beneficial research and commercial  
development of renewable aviation  
fuels” .....***

**.....Manager’s language Title 9, FY09’ USDA  
Authorization**

# Aviation's Unique Strength as Renewable Fuel Customer

- Aviation is dependent on Hydrocarbon based liquid fuels
- Concentrated Airport Distribution allows rapid deployment (80% of fuel to 35 locations)
- Single regulatory framework creates a global market (not 50 different states)
- Accelerated Safety certification efforts targets –
  - Fischer Tropsch Biomass blend approvals by yearend
  - Hydrotreated Renewable Jet (HRJ) blend approvals by 2010
- Globally accepted air quality models implemented via FAA/MIT environmental Center of Excellence
- Aviation systems engineering experience in R&D

*Small group of key evaluators / implementers drives rapid consensus via CAAFI Coalition*

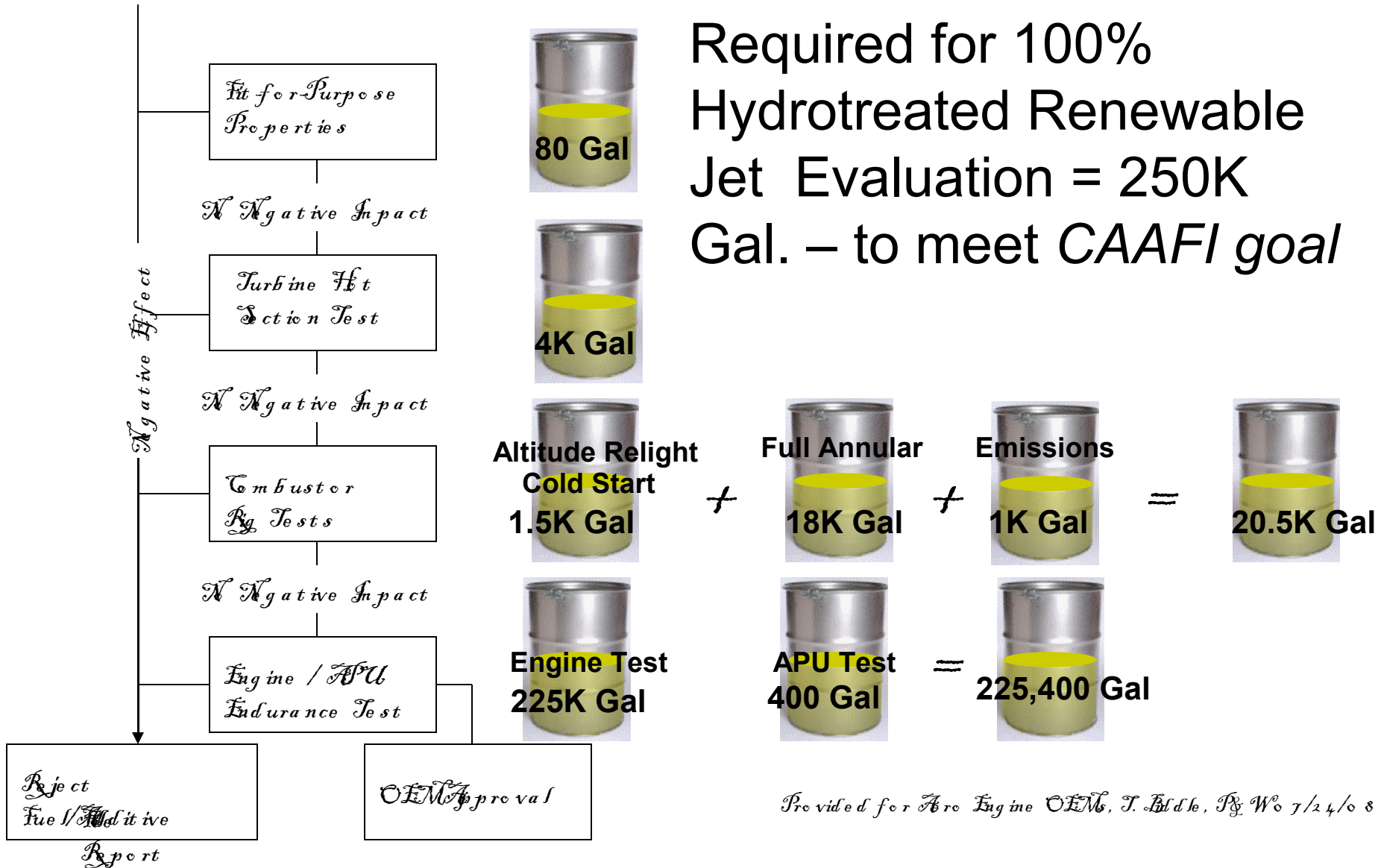
# Aviation Focused on Secs. 9003, 9005 Response

## CAAFI Candidate Tasks:

- **Production Scale up for Engine certification of pure Hydrotreated Renewable Jet (HRJ) (sec. 9003)**
- **Optimize Biomass & Coal Blend Co-Production Techniques (sec. 9005)**
- **Optimize Distribution and Use of Sustainable Biofuels in Aviation (sec 9005)**
- **Production Scenario Analysis for Aviation System Planning (sec 9005)**
- **Optimize Indirect Land Use algorithms in “Well to Wake” Analysis (sec 9005)**

# Sec. 9003 Focus – Pilot plants for 100% Certification

Estimate of Fuel Required for 100% Hydrotreated Renewable Jet Evaluation = 250K Gal. – to meet CAAFI goal



# CAAFI /AFRL Sustainable Biofuel Advisory Group 9/08

## Mission

..... Develop and communicate common roadmaps that enable aviation customers and funding sources to expedite development and deployment....start with Hydrotreated Renewable Jet fuels having quantities in place for multi-FFP tests at USAF Labs

## Participants Targeted

- USAF (co-chair)
- CAAFI (co-chair)
- Aircraft Manufacturers (Boeing, GE, P&W)
- Bio-fuels lead companies (UOP, GE, Tyson's, U NDak, Neste)
- FAA, NASA, EERE, USDA, DOD (DARPA)
- Participation of all Bio Fuel Companies attending (>16 entities)

## 9/09 Meeting/Workshop Goals

- Familiarize Aviation Producers with USDA Program targets
- Formalize R&D / Aviation Certification / Deployment plans
- Form basis for joining/aligning with USDA/EERE BRDI

# Commercial Aviation Renewable Fuel Opportunity



- ..... Compelling Supply Requirement
- .... Organized and Focused on Early Certification / Deployment
- .... Favorable Distribution Model / Environmental LCA focus
- .... Implementation aligning with Farm Bill Sec. 9003, 9005 Provisions

*Supporting USDA Producers Via the CAAFI Coalition !*

Photos compliments the Boeing Company

# Synthetic Fuel FT Bio-Blend Process Workshop 09/08

## Mission

*All project are substantiated as carbon positive and biomass blends are proven to meet both environmental and economic gains..... Airlines are a customer of choice for bio blend Syn fuel producers and > 50% supply of aviation fuel is achieved.....*

## Participants Targeted

- CAAFI (chair)
- Aircraft Manufacturers (Boeing, GE, P&W, Airbus)
- XTL lead companies (Rentech, Beard, ACCF, Sasol, Shell)
- FAA, NETL, USAF, DOC, DOD (DLA)
- Princeton / Noblis (detailed economics for Bio Blends)
- Participation of all XTL Companies attending (>10 entities)

## 9/09 Meeting/Workshop Goals

- Formalize Roadmaps to Optimize Deployment to Aviation
- Focus on Biomass feedstock transport/gasification technology, end product transport and blending, optimized economics
- Form basis for joining/aligning with USDA/EERE BRDI





GLENN MCCOY | BELLEVILLE NEWS-DEMOCRAT

*Show Me  
Energy  
Cooperative*

*Developing Energy Today for  
America's Tomorrow*

# *Show Me Energy Creating Economic Development for Rural Missouri*



# Where is Centerview, Missouri?



# *SMEC Vision*

- *VISION STATEMENT*

- *Show Me Energy Cooperative has as its guiding vision a commitment to establish an innovative, profitable, leading model for production of biomass based fuels which may be replicated across the country by small producer owned cooperatives that will provide a positive economic impact on the regions where they are located.*

# Energy Crops Utilized



Native Grass

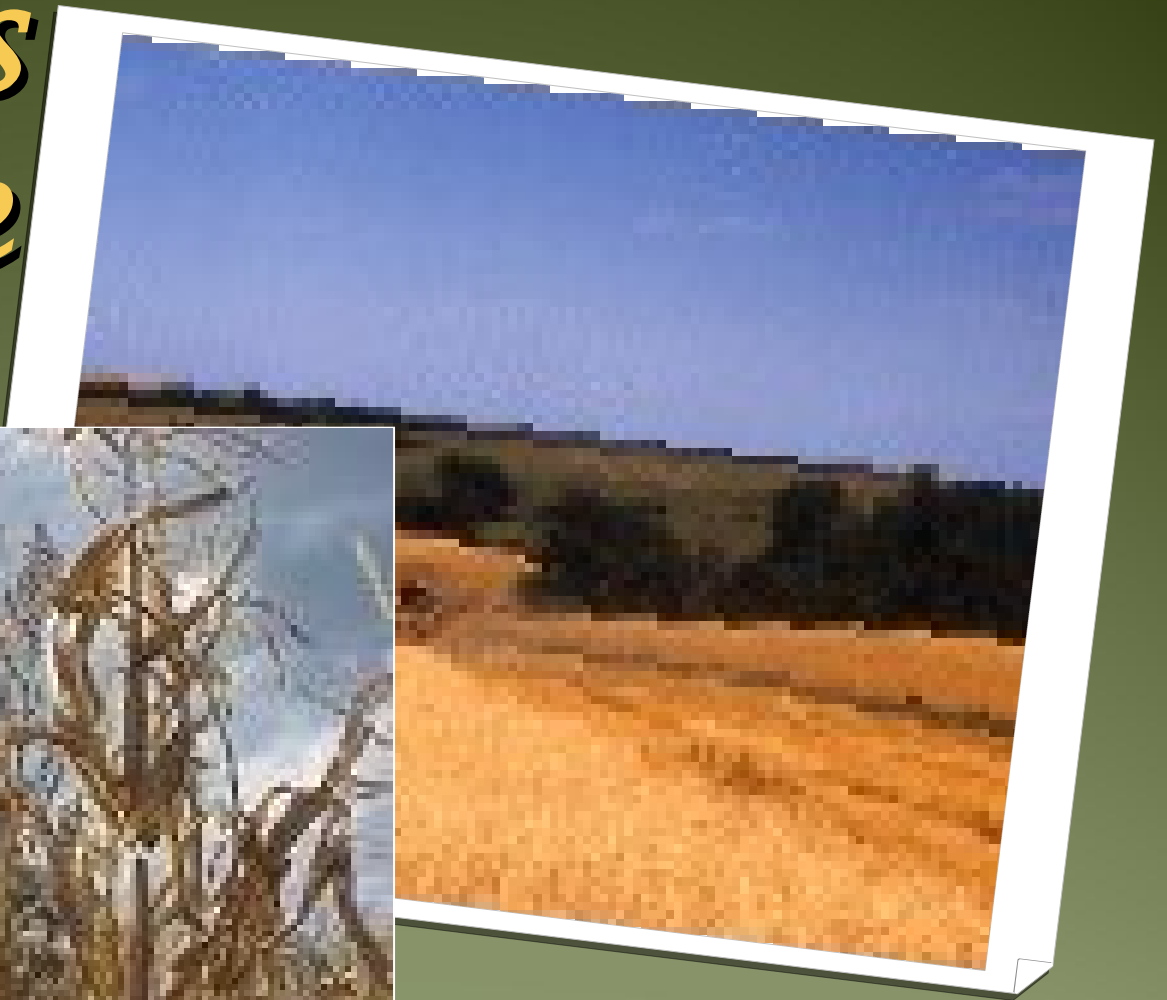


Switch Grass



Indian Grass

# *Biomass Residue*



*Crop Residue  
and Native  
Grasses are  
harvested by  
SMEC to  
Produce  
Renewable  
Energy Fuel*





# *SMEC Plant*



# *What is Biomass?*

- *Biomass refers to living and recently dead biological material that can be used as fuel or for industrial production. Most commonly, biomass refers to plant matter grown for use as BioFuels.*
  - *SMEC will use crop residues such as native and grass hay, corn stalks, Milo and soybean stubble, cereal straw (wheat, oats), and seed tailings, as well as industrial biomass sources such as saw dust, paper fluff, tea and coffee grounds.*
    - *SMEC Members harvest (bale) cellulose from perennial C<sub>4</sub> plants.*

# *Transportation of Biomass*



# *Pellet Mills at SMTC*



# *Biomass Energy Pellets*

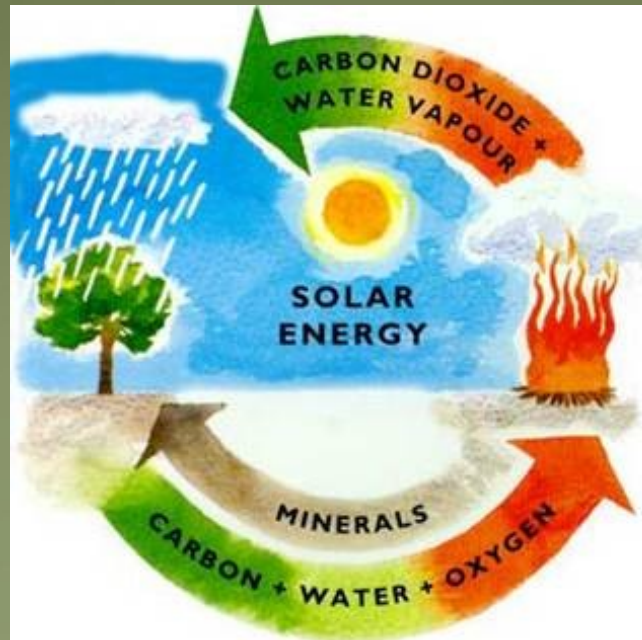


# *Show Me Energy Partnership with Aquila - Sibley, MO*



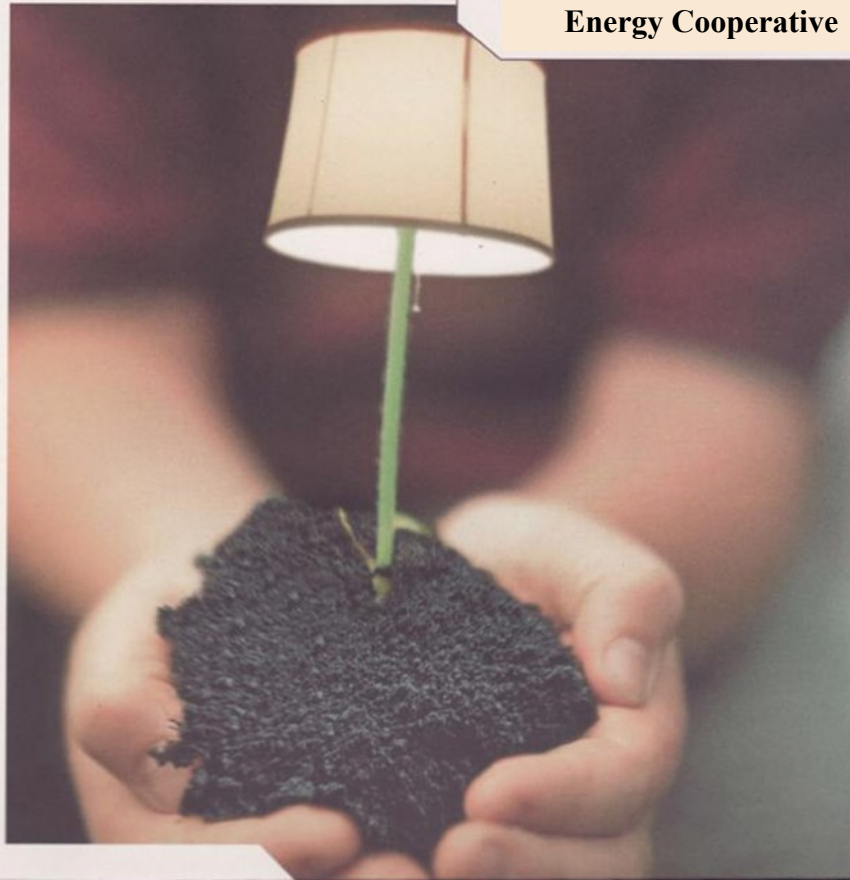
# *Environmental Impact*

- For each ton of biomass co-fired, Aquila will avoid emitting:
  - -1.69 tons of CO<sub>2</sub>
  - -145.82 ounces of Mercury
  - SOX and NOX benefits to be determined



# *Benefits to the State of Missouri*

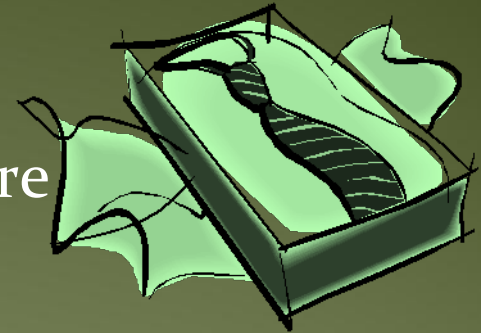
**Show Me  
Energy Cooperative**





# *Benefits to the State of Missouri*

- Farmers' Income
  - Increase Value Added Income Per Acre
- Rural Community Development
  - Job Creation – Green Collar Jobs
- Renewable Energy Use through Utility Companies
  - Urban and Rural Utilities Benefit
- Cleaner Water with Renewable Energy Crop Growth
- Energy Production Without Effecting the Feedstock Supply for Animals or Humans



***MOSAIC FEDERAL AFFAIRS LLC***

***UNITED STATES DEPARTMENT OF  
AGRICULTURE  
RURAL BUSINESS-COOPERATIVE  
SERVICE  
PUBLIC MEETING  
IMPLEMENTATION OF TITLE IX,  
ENERGY AUTHORITIES  
FOOD, CONSERVATION AND ENERGY  
ACT OF 2008***

September 4, 2008



**HISCOCK & BARCLAY**

## ***SECTION 9003, BIOREFINERY ASSISTANCE***

Provides loan guarantees to fund the development, construction, and retrofitting of commercial-scale biorefineries and grants to assist in paying the cost of the development and construction of demonstration-scale biorefineries.

Federal Biorefinery Assistance in New York and the Northeast has been negligible.

1. Ensure Regional Parity for New York and Northeastern Woody Biomass Feedstocks



# LYONSDALE BIOMASS



## ***SECTION 9003, BIOREFINERY ASSISTANCE***



Open Loop Woody Biomass is plentiful

1. Nationally, woody biomass can provide 368 million dry tons/year
2. Nationally, growth rates exceed removal rates by almost 50% (net annual growth on almost 500 million acres of U.S. timberland)
3. In north-central states, growth exceeds removals by 95%
4. Ratio is even greater in the northeast states, where growth exceeds removals by 125%
5. New York State has over 15.6 million acres with over 750 million tons of standing woody biomass
6. In NY, growth exceeds removals by more than 300%

## ***SECTION 9004, REPOWERING ASSISTANCE***

Provides for payments to be made to biorefineries in existence at time of enactment of the Act to replace fossil fuels used to produce heat or power to operate the biorefineries with renewable biomass.

1. Clearly favors food and feed-based Ethanol plants
2. Bars new cellulosic/hemicellulosic Woody Biomass applications at forest products industry sites.
3. Might conflict with existing Production Tax Credit guidelines
4. Not a re-powering incentive, just another corporate agriculture subsidy.



## ***SECTION 9005, BIOENERGY PROGRAM FOR ADVANCED BIOFUELS***

Provides for payments to be made to eligible producers to support and ensure an expanding production of advanced biofuels.

1. Ensure parity for thermochemical and biochemical technologies
2. Ensure parity for Advanced Hydro-Carbon and Alcohol Next Generation Liquid Transportation Fuels
3. Ensure Regional Parity for New York and Northeastern Next Generation Liquid Transportation Fuels
4. Ensure USDA-helps facilities sited closest to consumer demand.

# ***SECTION 9007, RURAL ENERGY FOR AMERICA PROGRAM***

Expands and renames the program formerly referred to as the Renewable Energy Systems and Energy Efficiency Improvements Program.

1. Audit/Assessment Program-Ensure regional parity to guarantee diverse feedstock focus including closed and open-loop woody biomass. Deploy resources to consortia such as Northeast States Research Cooperative or the SUNY-ESF “Circuit Rider” program.
2. Feasibility studies- Ensure regional parity and focus resources on distributive combined heat and power including rural municipal heating districts in New York and the Northeast.





# *SECTION 9007, RURAL ENERGY FOR AMERICA PROGRAM*

## 3. Previous Section 9006 matters-Biomass Utilization Grants

- a. a. Unilaterally focused on western forests
  - i. Clearly excludes New York and the Northeastern forests
- b. b. MSA-designation exclusion hurts the Northeast
- c. c. Overly fixated on federal vice public lands.



# ***SECTION 9011, BIOMASS CROP ASSISTANCE PROGRAM (BCAP)***

Provides support to the establishment and production of crops for conversion to bio-energy in project areas and to assist with collection, harvest, storage, and transportation of eligible material for use in a biomass conversion facility.

1. Ensure regional parity for short rotation woody biomass closed loop energy crops.
  - a. Shrub willow biomass is a proven closed loop biomass energy crop



## ***SECTION 9011, BIOMASS CROP ASSISTANCE PROGRAM (BCAP)***

2. Allied with cooperative growers, Catalyst Renewables planted 600-acres of shrub willow in commercial demonstration in New York in 2008.
  - a. Catalyst's strategic goal is 24,000 New York acres by 2012
  - b. Transition from University research to farm-based operations to influence operational adaptation by farmers
  - c. Used private dollars (50%) and federal appropriations/New York State funding assistance (50%)



# ***SECTION 9011, BIOMASS CROP ASSISTANCE PROGRAM (BCAP)***



- d. FY 2009 follow-on appropriation supported by four New York Congressmen/Congresswomen
- e. Operational program still must prove itself.
- f. Validation requires formalized, reliable funding assistance mechanisms.

# ***SECTION 9011, BIOMASS CROP ASSISTANCE PROGRAM (BCAP)***

3. BCAP cannot end up the same bureaucratic “drill” of the Conservation Reserve and Conservation Reserve (Enhanced) Programs.
4. BCAP should be the means to assist funding for the transition of under-utilized, non-food farmland into productive, suitable woody biomass energy cropland wherever feasible.



## ***SECTION 9012, FOREST BIOMASS FOR ENERGY***



The Forest Service is authorized to conduct a competitive research and development program to use forest biomass for energy.

1. Ensure regional parity for New York and Northeastern woody biomass projects.
  - a. Integrated production of energy from forest biomass is ready for commercial demonstration in New York and the Northeast at The Biorefinery in New York.
  - b. Manufacture of new transportation fuels from forest biomass is ready for commercial demonstration in New York and the Northeast.

## ***SECTION 9012, FOREST BIOMASS FOR ENERGY***

2. At the Lyonsdale Biomass 20Mwe/15,000pph thermal CHP plant in New York.
  - a. NYSDEC cites the surrounding Lyonsdale wood-basket as, “the healthiest, best managed forestland in New York State.”
    - i. Lyonsdale Biomass employs a NYS RPS-certified, sustainable Forest Management Plan.



**THANK YOU FOR YOUR INTEREST.**



This Presentation  
and the  
Formal Submitted Written Comments  
are  
Posted on the Mosaic Federal Affairs  
Website



Michael Brower  
Senior Federal Policy Director  
[www.mosaicllc.com](http://www.mosaicllc.com)

Affiliated with



[www.hiscockbarclay.com](http://www.hiscockbarclay.com)



# Expanding Rural Renewable Energy Opportunities

Inviting a Dialogue with the Public on the New Authorities  
of the Food, Conservation, and Energy Act of 2008

Presented by:  
Craig Metz, Chief Executive Officer for EnSave, Inc.

September 4, 2008  
Washington, DC

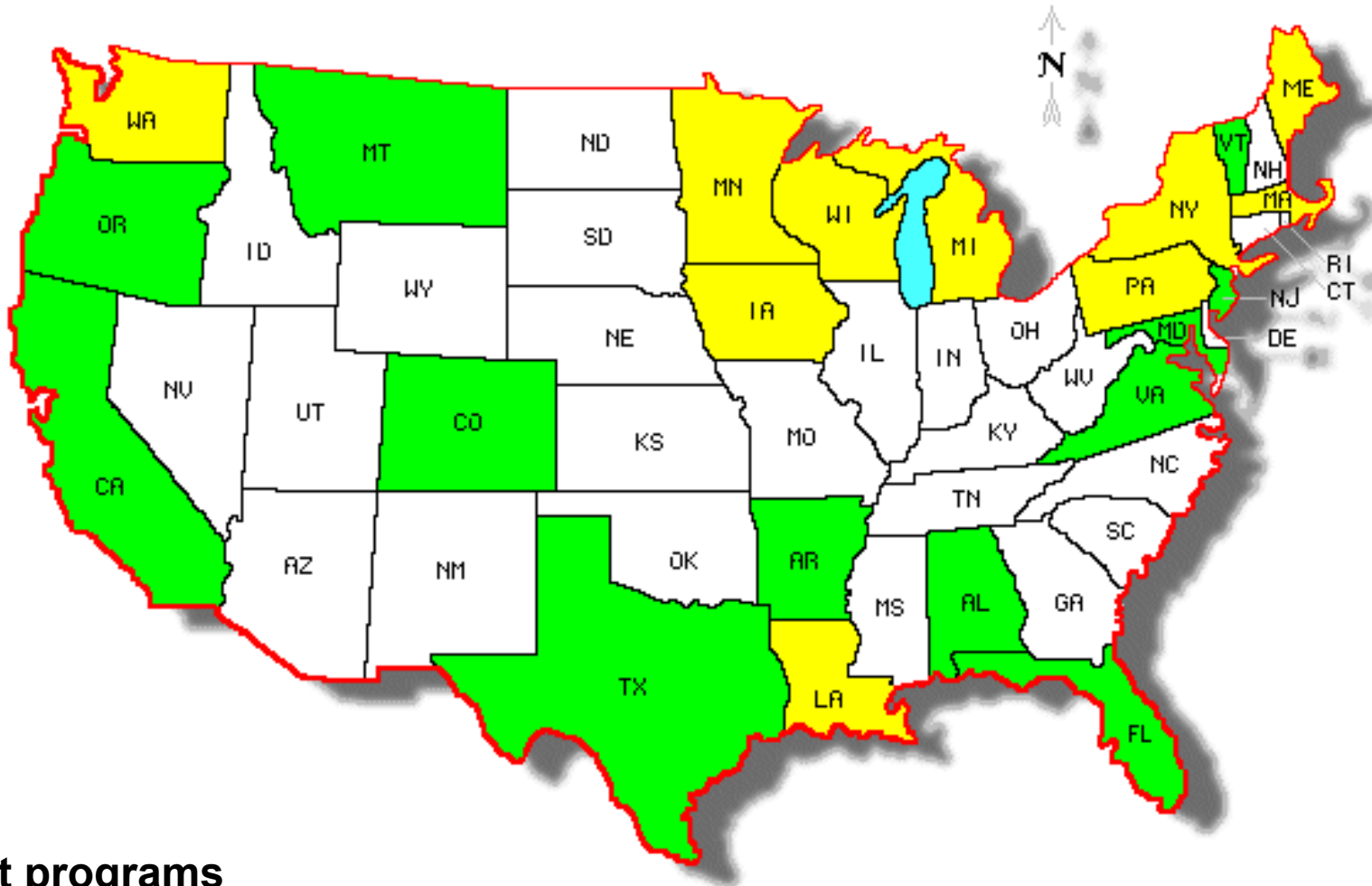


# Who is EnSave?


EnSave has provided energy efficiency services to the agricultural sector throughout the United States since 1991.

- Designing and implementing energy efficiency programs for utilities, state energy offices, EPA, USDA and others
- One of EnSave's core program offerings is farm energy audits (over 1,500 completed for all types of farms)





 **Past programs**

 **Active, or pending**

# Title IX – Energy, Section 9007 Language

“(b) Energy Audits And Renewable Energy Development Assistance-

“(2) Eligible Entities – An eligible entity under this subsection is-

“(A) unit of State, tribal, or local government;

“(B) a land-grant college or university or other institution of higher education;

“(C) a rural electric cooperative or public power entity; and

“(D) **any other similar entity, as determined by the Secretary**

# Suggested Language

EnSave respectfully requests the following language be added to the list of eligible entities:

***“a corporation or rural small business that has demonstrated the ability to conduct agricultural energy audits”***

# Why this is Important?

- EnSave has developed an infrastructure to increase program participation (especially in those states with low application rates).
- EnSave has been serving America's agricultural energy needs for over 17 years.
- Entities such as EnSave would be able to conduct their work without going through another layer of bureaucracy, thus ensuring a more efficient process.
- EnSave has shared its knowledge with several Agencies of the USDA in regards to energy issues.
- EnSave is the leading agricultural energy efficiency company in the United States.



# Thank You

For questions, please contact me:

Craig Metz

Chief Executive Officer

EnSave, Inc.

(802) 434-1822

[craigm@ensave.com](mailto:craigm@ensave.com)



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# **Optimizing Sections 9007 and 9011 in the 2008 Farm Bill**

**USDA Public Hearing on Expanding Rural  
Clean Energy Opportunities with the Food,  
Conservation and Energy Security Act of  
2008**

Charles Kubert  
Senior Environmental Business Specialist  
Environmental Law & Policy Center





# About Environmental Law & Policy Center

---

Largest clean energy advocacy group in Midwest/Great Plains


Active in design, passage and implementation of Energy Title in 2002 and 2008 Farm Bills

Have built national ag energy network of producer groups, rural development organizations, sustainable ag advocates and others.

Close partnership with USDA in Section 9006 (REAP) implementation




# ELPC's Close Partnership with USDA






ENVIRONMENTAL LAW & POLICY CENTER

## AN AMERICAN SUCCESS STORY

### THE FARM BILL'S CLEAN ENERGY PROGRAMS



**NEW FARM INCOME**  
**NATIONAL ENERGY SECURITY**  
**RURAL ECONOMIC DEVELOPMENT**  
**BETTER ENVIRONMENTAL QUALITY**


A Successful New Energy Independence and Economic Development Program




ENVIRONMENTAL LAW & POLICY CENTER  
Environment Midwest

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**Farm Energy News**  
**AgEnergy Newswire**  
**Farm Bill Policy**  
**Applications & Tools**  
**Incentives**  
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 9006 FAQ  
 Other Programs  
 State-Level USDA Contacts  
**About Clean Energy**  
 Wind  
 BioFuels  
 Biogas Digesters  
 Energy Efficiency  
 Solar  
 Geothermal  
**Publications**  
**Events**  
**About FarmEnergy.org**

### Latest Farm Energy News



[USDA Moves Fast On Farm Bill Energy Programs](#)  
 In this update: USDA confirmed today that it will hold a public hearing next Thursday, September 4. USDA is fast-tracking two Farm Bill clean energy programs. More details on REAP.



[USDA Publishes Notice on Implementation of Farm Bill Energy Programs](#)  
 Here are details on plans from the United States Department of Agriculture (USDA) to write the rules to implement new Farm Bill clean energy programs. This process entails many decisions which, in sum, will determine the overall success of the program. [See also our update on this process.](#)



[New Farm Bill Program Can Advance Energy Crops](#)  
 The 2008 Farm Bill contained the groundbreaking Biomass Crop Assistance Program (BCAP). This program can spur a new climate-friendly and farmer-friendly energy source. BCAP, implemented well, could make a major difference for our energy future.

### Hot off the AgEnergy Newswire



[Potential biofuel crops thrive in North Dakota](#)  
 A number of varieties of wheatgrasses and perennial grasses are being looked at as potential sources of biofuel in areas of southwestern North Dakota. According to the Farm and Ranch are Guide, test plots at the Hettinger Research Extension Center are showing that the plants can grow tall and lush, even through a season of tough weather.  
 "Maybe switchgrass isn't going to work here," agronomist Eric Eriksmoen said. "But there are other grasses that we can grow. And those will certainly work for cellulosic ethanol."



[U.S. Cattlemen's Association Supports Alternative Energy](#)  
 In the midst of rising energy prices, the U.S. Cattlemen's Association (USCA) announced recently that it will support "bold, aggressive plans for America's energy future that reduce



# Overview

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Focus of remarks on implementation of:

## Section 9007: Rural Energy for America Program (REAP)

- Funds energy technical assistance, feasibility studies, grants and loan guarantees for rural clean energy projects
- Has funded 1,940 projects in all 50 states since 2003
- Funding increased from \$36MM/year (FY08) to \$250MM (FY09-12)

## Section 9011: Biomass Crop Assistance Program (BCAP)

- Funds pilot projects to grow, transport and utilize energy crops in biomass conversion facilities
- No statutory funding cap

ELPC will submit written comments on these and other Energy Title programs



# Rural Energy for America Program (9007)

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## Guiding Principles:

- 1) Identify opportunities to save/produce energy through energy technical assistance
  - Drive significant energy cost relief for farmers and rural businesses
- 2) Improve quality of Section 9007 applications through feasibility study support
- 3) Support projects of all sizes, technologies and markets throughout the country



# Energy Technical Assistance-Recommendations

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- ETA services may include “in-field” energy assistance
- Grantees should deliver both direct audits and workshops/training
- Program should support rural businesses (not just agriculture) and renewable energy (not just energy efficiency)
- Program should support multi-year grants to ensure local program continuity and success
- Grant eligibility should extend to other non-profits with access to qualified energy professionals (Section 9007, (b) (2) (B))



# Energy Technical Assistance-Recommendations

---

- Maximum grant awards: \$250,000/year for single entities, \$500,000/year for collaboratives
  - Total funding tops out at \$2.8 MM/year (4%) in 2008
- Preference for states without existing ag energy technical assistance programs



# Feasibility Studies- Recommendations

---

Good feasibility studies make for good projects (and derail bad ones)

Statute calls for 10% of REAP funding set aside for feasibility studies

- Consultants need to be independent of technology vendors, appropriately credentialed
- Feasibility study grant should not affect eligibility for 9007 project grant
- Applicant cost-share should be 50% (similar to VAPG)

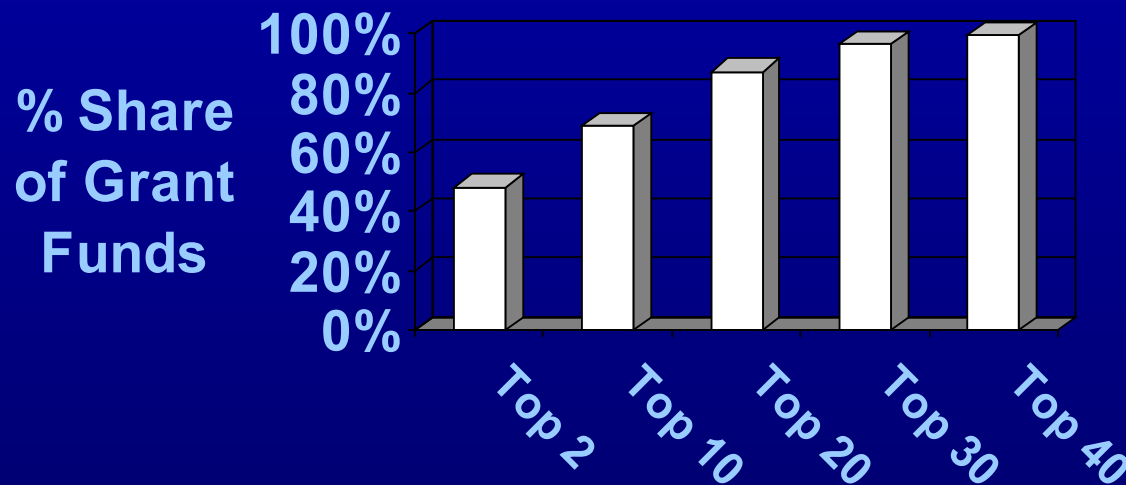


# REAP Grants and Loan Guarantees

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Large share of Section 9006 grant funding concentrated in a few states

## Cumulative Share of REAP Grants- By State, 2003-08



2008: 3 awards in California, 1 in Texas



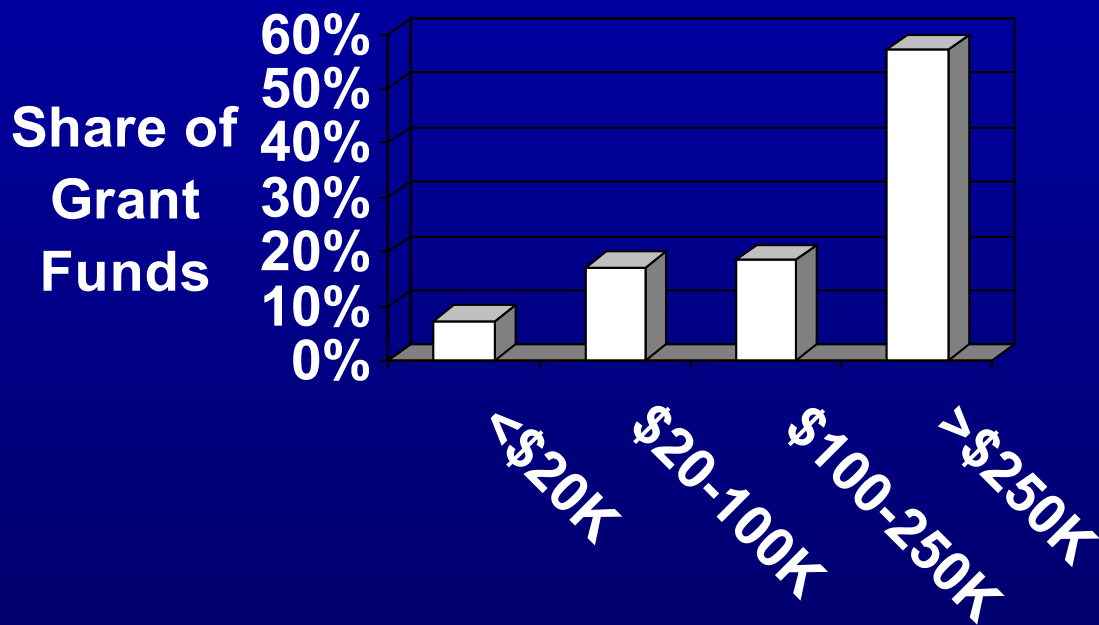


# REAP-Small Grants

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REAP legislation requires 20% of funds set for grants under \$20,000

## REAP Grants by Grant Size-2003-08



# REAP-Small Grants

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Reaching this goal will require program changes

- Energy Technical Assistance
- Expanded USDA outreach
- Streamline and simplify applications.
- Reduced emphasis on loan guarantees, increased emphasis on grant outreach.



# REAP-Loan Guarantees

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USDA has placed increased emphasis on loan guarantees since 2006

- Over 50% of funds set aside for loan guarantees
- Priority review of loan guarantee or “combo” applications
- Results fall short of USDA Expectations
  - Small projects in certain states request loan guarantees to boost chances
  - Loan guarantees being “forced upon” applicants when project doesn’t require one
  - Overall demand for loan guarantees well below USDA set-aside: FY08 \$205 MM vs <\$9MM in awards



# Biomass Crop Assistance Program

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Important program for priming biomass supply chain

Addresses many challenges in biomass production and utilization.

Guiding Principles:

- 6) Apply sustainability and rural economic development criteria to energy crop production.
- 7) Provide safety net to farmers willing to transition to energy crops.
- 8) Encourage visible working models for energy crop and biomass production and utilization.



# BCAP- Project Selection Criteria

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- Conservation/Environmental Criteria: Incorporate wildlife, water quality and carbon sequestration measures.
  - Seek input from NRCS, FWS.
- Native Plantings: Do not limit program to native plants.
  - High-yield, non-invasive energy crops (miscanthus) okay.
- Geographic and Project Size Diversity: Both should be encouraged.



# BCAP- Other Issues

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- Guarantee of BCF Purchase of Energy Crop: Purchase contracts or letters of intent are adequate
- Establishment Cost Payments, Annual Payments and Harvest/transport Payments: All should be independent of one another
- Do not bias against small projects. Ramping scale up too quickly may not be best approach. More smaller projects increases innovation. Allow efforts with multiple approaches and technologies.



## For More Information . . .

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- Please contact ELPC staff:
  - Charles Kubert, Senior Environmental Business Specialist  
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  - Andy Olsen, Senior Policy Advocate  
aolsen@elpc.org, 608-442-6998
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- Visit [www.farmenergy.org](http://www.farmenergy.org) for additional information.



# Mobile Biodiesel Processing in Alabama

## “A biodiesel Classroom on Wheels”

**Dr. Ernst Cebert**  
**Alabama A&M University**  
**Department of Natural Resources and Environmental Sciences**

As interests in biofuels increase, it is essential that state policy makers ensure that producers are well educated in the process of producing these fuels. The Environmental Protection Agency and the Department of Transportation have specific quality standards for all biofuels produced in the United States. Alabama A&M University, Department of Natural Resources and Environmental Sciences and the Alabama Department of Agriculture and Industries have created a ‘**Biodiesel Classroom on Wheels**’, which provides a mobile educational tool to citizens of Alabama who are interested in the production of biodiesel.

The popularity of small scale biodiesel production is due to the simplicity of the process, which requires few inputs and minimum capital investment. The unit can be taken to different locations around the state to provide hands-on demonstration and training using locally available feedstock (waste vegetable oil, canola and other oilseed crops) and equipment from BiodieselLogic™ of Albertville, Alabama.



**Mobile Biodiesel Production Unit**

The fully operational mobile biodiesel production system consists of: (1) BDL-55-SS, 84-gallon Biodiesel Reactor with an internal 2250 watt heater; (2) Transfer/mixing pump; (3) 200 micron pre-filter; (4) A 15-gallon meth-oxide mixer & methoxide injection system; (5) Control panel with temp control & high temp limit; (6) Relief valve; (7) Methanol recovery condenser; (8) Heavy duty stands with adjustable locking caster; (9) One combo 110 gallon CS dry wash Amberlite tank w/installed amberlite dry wash cell system; (10) One biodiesel transfer pump w/installed 1-micron final filter station; and (11) Storage tanks. The complete system is assembled on a 6’x16’ modified flatbed trailer



State Senator Dr. Parker Griffith at the unveiling of the unit on the campus of Alabama A&M University, with Dr. Cebert in the background.





for ease of transport to locations in Alabama and surrounding states.

The unit is part of the biofuel research project being conducted by Dr. Ernst Cebert in the Department of Natural Resources and Environmental Sciences, in School of Agriculture at Alabama A&M University.

Widespread exposures to small-scale biodiesel have been achieved by displaying the unit at state fairs, cooperative extension meetings and other agricultural related events. The system has also been used as a tool to educate 4-H and FFA youths in the school systems around the state of Alabama (*see attached 2008 schedule*).

During the fall-2007 Alabama State-fair season, the Biodiesel Classroom on Wheels was unveiled at the Alabama Department of Agriculture and Industries' Motor Pool facility in Montgomery, Alabama. After its initial display in several 2007 Alabama state-fairs, the Biodiesel Classroom on Wheels has been in great demand from schools, farmers, and industries. Several industry groups have visited the unit at the Alabama A&M University, Winfred Thomas Agricultural Research Station, in Hazel Green, AL. The Alabama Department of Agriculture and Industries, other public and private institutions are using the unit as an educational tool for their employees. This project has provided the State of Alabama a unique biofuel/biodiesel educational tool to educate its citizens on the production of biodiesel from various feedstocks including oil from locally grown winter canola, and sunflower. This project has been beneficial to all parties including farmers, entrepreneurs, K-12 school systems, community colleges, and end-users, especially for Alabama A&M University's and the Alabama Department of Agriculture and Industries.



## 2008 Training, Demonstrations and Display of The Alabama Biodiesel Classroom on Wheels

Trip #	Date	Event
1	Jan 22, 08	Alabama Energy Day, State House, Downtown Montgomery, AL
2	Jan 08	Black Caucus Convention, Fair Hope, AL
3	Jan 08	Fleet Managers Convention, Gulf Shores, AL
4	Jan 08	Alabama A&M University, Huntsville, AL
5	Jan 08	Biodiesel Conference, Florence, AL (on display at manufacturing facility) Arab, AL
6	Feb 1, 08	Mont. County Extension Service (Cattleman Assoc.) at Farmers Market Café (Downtown Montgomery) 7am Breakfast
7	Feb 6 & 7, 08	Alabama - Florida Peanut Trade Show, National Peanut Festival, (Fairgrounds) Dothan, AL
8	Feb. 21, 08	Tuskegee University—Tuskegee, AL his till 5pm
9	Feb 22 & 23, 08	Montevallo FFA Farm Day, Montevallo, AL
10	Feb 28, 08	Dr. Cebert, North Alabama Center for Educational Excellence, Huntsville, AL
11	March 13, 08	Dr. Cebert, AAMU Science Day, Huntsville, AL
12	March 14 & 15, 08	”Clover Crawl”, Green Resource Center, AL Power, Homewood, AL
13	April 9, 10, & 11, 08	Grand Bay, AL
14	April 14, 08	Blount Co., Union Springs, AL
15	April 24 & 25, 08	Earth Day Activity, Huntsville, AL (Toyota Plant; Sparkman high school)
16	April 26, 08	Marshall County PALS Environmental Fair, Guntersville, AL
17	May 18 & 19, 20, 2008	Alabama League of Municipalities, Annual Convention, at BJCC. Birmingham, AL.
18	May 21 & 22, 2008	Bridgeforth Farms, Athens, AL (Canola for Biodiesel Field Day)
19	May 23 & 24, 2008	Jubilee Fest, Montgomery, AL
20	June 30, 2008	Russellville, AL, Senator Bedford
21	July 7 & 8, 2008	Alabama Farmers Coop, Birmingham, AL

<b>Trip #</b>	<b>Date</b>	<b>Event</b>
22	July 15, 2008	Moving Alabama Forward, Birmingham, AL
23	July 16, 2008	Moving Alabama Forward, Decatur, AL
24	July 17, 2008	Moving Alabama Forward, Montgomery, AL
25	July 22, 2008	FFA Jefferson Jackson, B-Ham, AL
26	July 31, 2008	Agri-science Classes 4-High schools participated, Clanton, AL
27	Aug. 2, 2008	Farm Expo—Clanton, AL
28	Aug. 4, 2008	Dept of Agriculture & Industry. (Beard Building) Montgomery, AL
29	Aug. 21 & 22, 2008	A&M Small Farm, North & South AL. Mobile, AL
30	Aug.23, 2008	Ecomax, Rep. Wren, Alcazar Temple, Montgomery, AL
31	Sept. 4, 2008	Flomaton High School, Flomaton, AL
32	Sept. 16, 2008	Talladega School for the Blind, Talladega, AL
33	Sept. 17- 18, 2008	Mid-South RC&D Council, Renaissance, Montgomery, AL
34	Sept. 18-h 9, 2008	Cullman County Fair, Cullman, AL
35	Sept. 23-25, 2008	Baldwin County Fair, Robertsdale, AL
36	Sept. 27, 2008	Marshall County PALS, Environmental Fair, Guntersville, AL
37	Sept. 28-Oct. 2, 2008	Tenn. Valley Expo, Morgan County Fair, Decatur, AL
38	Oct. 3 & 4, 2008	Fayette Chamber of Commerce, (Frog Leg Festival), Fayette, AL
39	OCT. 4-12, 2008	Alabama National Fair, Montgomery, AL
40	Oct. 16-29, 2008	Greater Gulf State Fair, Mobile, AL
42	Oct. 30-Nov. 8, 2008	National Peanut Festival, Dothan, AL
42	Nov. 19 & 20, 2008	A & M Small Farm Conference, Holiday Inn, Huntsville, AL
43	Dec. 5, 2008	Anniston's Christmas parade, GO-GREEN, floats made from recyclable material, Anniston, AL

Work from the past decade at Alabama A&M University has shown that, winter canola can be an alternate to winter wheat and also can be double-cropped with soybean, sunflower and sweet sorghum as additional feedstock for biodiesel and ethanol. The winter canola breeding program in the Department of Natural Resources and Environmental Sciences is developing new promising early maturing winter canola lines, which can be used as viable and profitable feedstock for the production of biodiesel. Average seed yield from AAMU's canola lines ranges from 2000 to greater than 3000 kg ha<sup>-1</sup> in experimental plots in Northern Alabama.

Also, producers of biodiesel in Alabama would rather use canola oil, not only because of its superior quality, but mainly because it produces between **130-170 gallons** of biodiesel per acre, compare to **48-55 gallons** per acre from soybean. Therefore, by demonstrating the profitability of winter canola, which provided significant profitable yield in the harsh 2006-2007 growing season (the Easter freeze followed by exceptional drought conditions); plus the added-value from its by-products (canola meal) as a feed for poultry production and fish-farming, it is essential to show growers and potential oilseed crushers of the economic wind fall of winter canola for this region. Therefore, through this joint venture, Alabama A&M University will provide educational literatures for producing winter canola as a feedstock for biodiesel in the state of Alabama.



**AAMU's on-farm demonstration canola field in Limestone County, Northern Alabama.**

Currently, we are evaluating the energy yield potential of **winter canola** cultivars for **biodiesel**; **sweet sorghum and sweet potato** biomass for **ethanol**. We have established a seed to fuel evaluation system, whereby, harvested winter canola seeds will be pressed using a 6-ton oilseed-press; determine oil yield; convert the oil to biodiesel using the "Biodiesel Classroom on Wheels", test the fuel for quality and use the final product in university vehicles. Alabama A&M University has a federal permit to produce up to 10,000 gallons of **ethanol** per year for biofuel research. We will be evaluating the ethanol output of sweet sorghum and sweet potato with a distillation system built by AAMU engineering students. The Ethanol produced by AAMU will be used to convert university vehicles to operate on biofuels.

Alabama A&M is collaborating with Auburn University to investigate a “**Bio-energy Rotation**” system (cotton-canola-soybean) with irrigation in North Alabama, to determine the bio-energy potential for each crop if drought conditions persist.

**For More information, please contact:**

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**Dr. Ernst Cebert**

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***Center for Alternative Fuels***

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[www.agi.alabama.gov/alternative\\_fuels](http://www.agi.alabama.gov/alternative_fuels)

# The Closed-Loop Renewable Energy Model

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## INTRODUCTION

The primary issue used to criticize biofuels is its negative impact on food prices, which creates an unfair burden on consumers. Somewhere in the process, decision has to be made: food or fuel. Current bioenergy systems are rewarded based on government subsidies and incentives, and output potential of the feedstock. The motivating force in the bioenergy market as is for all other businesses is profit. Therefore, participants including feedstock producers (farmers), seed brokers (ADM, Cargill and others) and biofuel facilities (biodiesel, ethanol) will choose fuel as long as government subsidies continue to generate favorable profit. The unfortunate burden of higher prices of food can be addressed by adopting non-food crops dedicated to biofuels, or by creating a closed-loop system whereby any food crop used as a feedstock for fuel must meet the 3F criteria: **Food-Feed-Fuel** in that order.

Switching to non-food crops feedstock could worsen the problem, because farmers would use their food-crop acreages to produce the more profitable fuel-crops. The non-food crop approach will work only if biomass in the form of forest products, algae, switchgrass from non-row crop lands and existing pastures become the primary feedstock for biofuels. In the 3F criteria, farmers can continue to grow the usual food crops; however, the first use of the harvest should be for food, either by direct human consumption or through normal food processing. The second use should meet the need for animal feed, thereby reducing the un-intended side effect of increasing the costs of meat, eggs, dairy and other animal products. The last of the 3Fs (fuel), should come from the waste stream of the first two-Fs; row crop residues (corn stover, peanut hulls) waste vegetable oil, animal fat and animal waste.

## BIODIESEL CLOSED-LOOP SYSTEM

Currently, all oilseed crops (canola, cotton seed, peanut, sunflower and soybean) grown in the United States can be used for a closed-loop biodiesel (CLB) system. In this project, we will consider the use of winter canola and sunflower in a double cropping feedstock production scenario.

- ✓ **Feedstock Production** – Locally produced winter canola and sunflower will be purchased at market price. Collaboration with growers will be arranged in order to obtain all input data necessary to determine the economic impact of obtaining the crops locally versus being

## **The Closed-Loop Renewable Energy Model**

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shipped-in from other locations. Assessment of feedstock production potential to sustain a pre-determine capacity of oil will be made on a radius not to exceed 100 miles.

### **Food Component**

- ✓ Oilseed Crushing
- ✓ Processing food quality Virgin oil
- ✓ Contracting with primary users of oil for cooking

### **Feed Component**

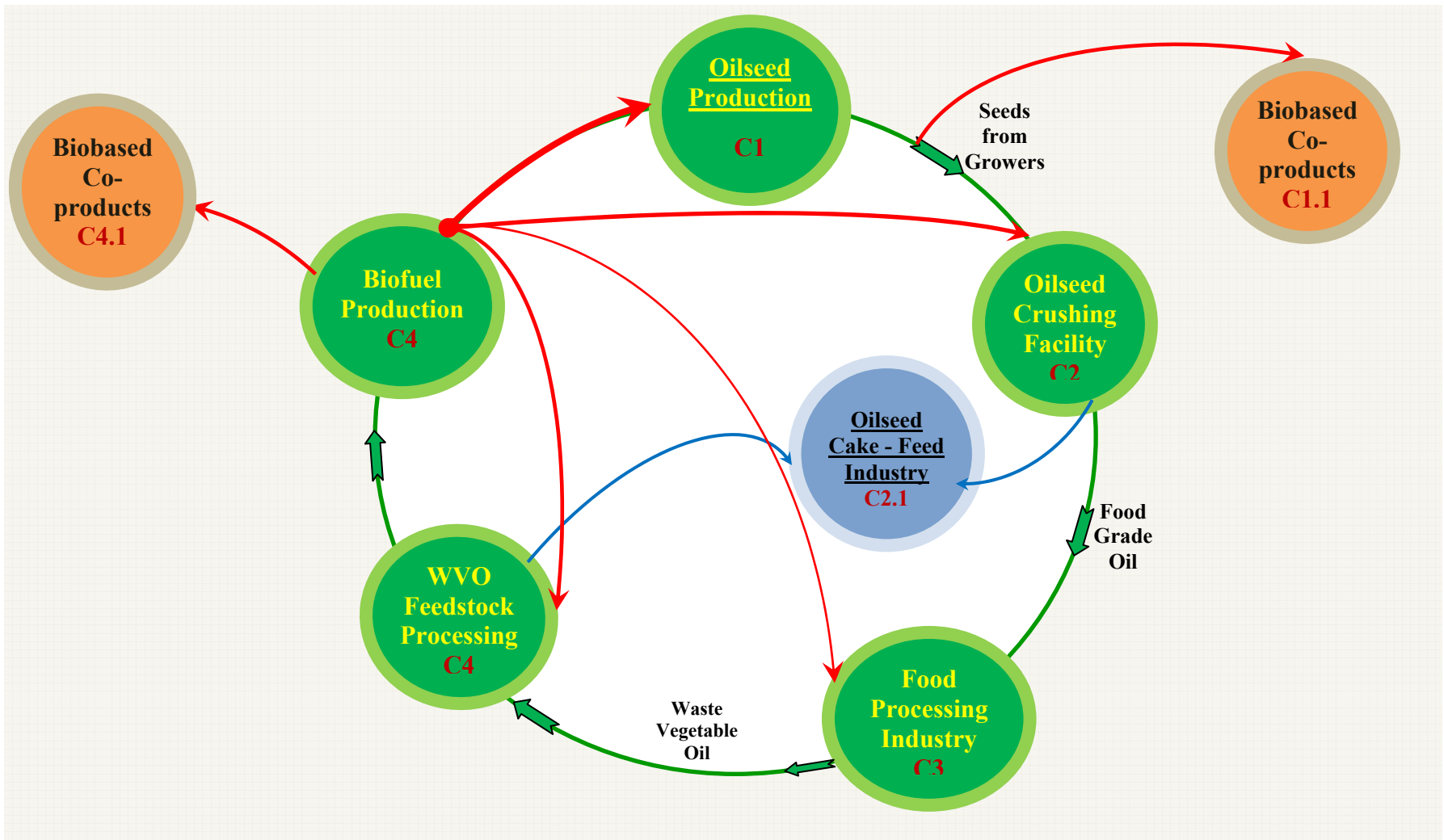
- ✓ Processing of meal
- ✓ Formulating high quality meal for specific clientele
- ✓ Minimize waste-stream by including food component residuals in the feed co-products

### **Fuel Component**

- ✓ Obtain waste vegetable oil (WVO) from primary users
- ✓ Process WVO for high quality feedstock
- ✓ Supply feedstock to biodiesel producers
- ✓ Arrange to obtain glycerol from the biodiesel producers

The proposed model is being tested by Alabama A&M University and its partners in the community. Funding is required to implement a scale-up pilot program of the concept.

# The Closed-Loop Renewable Energy Model



Ernst Cebert and LaMar Hauck (September 2008)



*I believe the following principles should guide USDA's delivery of all of the Farm Bill energy programs:*

*1. The allocation of USDA energy program funding should be distributed among the states. Every state in the US is taking steps to increase energy efficiency and generate renewable energy, and every state should receive assistance from USDA's programs. Any concentration of awards to a few states would be a failure of national energy policy.*

*2. USDA Rural Development's greatest asset is its decentralized structure and workforce. Grant award decisions should be pushed down from the national level to the state level. This will allow maximum use of USDA Rural Development's structural advantage. National competitions -- which pass over USDA's close-to-the-customer expertise & decision-making; which seem to require lengthy narrative applications with long-turnaround times; and which tend to daunt small rural applicants -- should be avoided as a delivery model.*

*3. Awards should be distributed widely among qualified applicants. Rather than award applicants all-or-nothing of what they apply for, local decision-makers should be given latitude to reduce award levels in order to assist more applicants at still meaningful levels.*

*4. Applications should be simplified across the board. The smaller the award, the simpler the application should be. The old Section 9006 application was excessive and needs to be dramatically limited. USDA should develop specifically-tailored, simple application forms rather than using "standard forms" and "general certifications" that are confusing and off-target.*

*5. State RD offices should be authorized to develop application forms and delivery mechanisms that mesh closely with their state's energy incentive programs.*

*6. Award decisions should be announced in a expeditious manner. In most cases, awards should be announced within 30 days of application deadlines.*

*Thank you for your careful consideration of these comments.*

*Jeffrey Deiss*

**Comments of the Algal Biomass Organization in response to a call for comments and a Notice of Public Meeting entitled “Expanding Rural Renewable Energy Opportunities—Inviting a Dialogue with the Public on the new authorities of the Food, Conservation, and Energy Act of 2008 (Pub. L. 110-234) (“the Act”).”**

**Submitted to the Department of Agriculture, Rural Business Cooperative Service**

**September 19, 2008**

Robin Robinson  
Rural Business-Cooperative Service  
US Department of Agriculture  
Room 5830 South Agriculture Building  
STOP 3201  
1400 Independence Avenue, SW  
Washington, D.C. 20250-3201

These comments are submitted by and on behalf of the Algal Biomass Organization (the “ABO”) in the above-referenced matter. The US Department of Agriculture is taking public comment regarding the implementation of Title IX of the Farm Bill. The ABO is grateful for this opportunity to participate in this important dialogue and submit comments.

The ABO was recently formed with the purpose of aggregating the interests of those entities most interested in developing commercial applications for and further research on the practical uses of algae. The ABO is a not-for-profit organization dedicated to the advancement through research and education of the field of algal biomass production technologies. The mission of the ABO is to promote the development of viable commercial markets for renewable and sustainable commodities derived from algae.

The primary purposes of the ABO are as follows:

- Facilitate commercialization and market development of algal biomass specifically for biofuels production and greenhouse gas abatement.
- Deliver information to the public on initiatives, funding opportunities, and industry development.
- Provide networking and collaboration opportunities.
- Establish cutting edge research and commercialization summits and other meeting opportunities.
- Develop a high quality interactive repository of information on algal biomass technology, science, products, processes, patents, and economics.
- Facilitate intellectual property aggregation, licensing, and royalty management.
- Develop quality and measurement best practices for algal biomass, products, systems technology, and econometrics.
- Afford career advancement and consultation opportunities.

The membership of the ABO is open to for-profit and non-profit organizations and all interested individuals including investors, researchers, producers, end-users, and technology suppliers. The organization is supported financially by member organizations and individuals, as well as grants and donations from private, corporate, and government entities.

With that background in mind, the ABO's overarching message to the USDA in the implementation of the Farm Bill is to maintain a level playing field, to avoid adverse treatment of any particular class of biofuel producers, and to allow all biofuel producers, including algae producers, to flourish under programs established by the federal government to encourage the development of fossil fuel alternatives.

Thank you, again, for this opportunity to participate in a dialogue on the implementation of Title IX. We look forward to continued involvement in this process.

On behalf of membership and the Board of the Algal Biomass Organization,  
Sincerely,

/signed/

Billy M. Glover  
Board Co-Chair  
Algal Biomass Organization  
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Natural Gas Vehicles for America

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September 16, 2008

Ms. Robin Robinson  
Confidential Assistant  
Office of the Administrator  
Rural Development, Business and Cooperative  
Programs, Room 5803  
US Department of Agriculture  
South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
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**RE: Notice of Public Meeting on Implementation of Title IX, Energy Authorities  
of the Food, Conservation and Energy Act of 2008**

**I. Introduction**

Natural Gas Vehicles for America (NGV America) respectfully submits the following comments in response to the United States Department of Agriculture's ("USDA") notice requesting comments on the various energy authorities adopted as part of the Food, Conservation and Energy Act of 2008, Pub. L. No. 110-234 ("the Act"). *See 73 Fed. Reg. 50302* (August 26, 2008). NGV America is a national organization of over 100 member companies, including: vehicle manufacturers; natural gas vehicle (NGV) component manufacturers; natural gas distribution, transmission, and production companies; natural gas development organizations; environmental and non-profit advocacy organizations; state and local government agencies; and fleet operators. NGV America is dedicated to developing markets for vehicles that operate on natural gas or biomethane and building an NGV infrastructure, including the installation of fueling stations, the manufacture of NGVs, the development of industry standards, and the provision of training.

**II. Comments**

NGV America is dedicated to creating and advancing new markets for the use of natural gas and biomethane as a motor vehicle fuel. This effort includes working with producers, vehicle manufacturers, and customers to further the use of natural gas as a transportation fuel. Natural gas offers a number of advantages when compared with petroleum motor fuels. These advantages include offsetting petroleum imports, reduced emissions of criteria pollutants, and reduced greenhouse gas emissions. These advantages are enhanced when the natural gas is produced from renewable biomass. Moreover, studies show that using

biomass to produce biomethane or renewable natural gas provides superior benefits when compared with other transportation fuels produced from biomass.<sup>1</sup> Several studies also project that large amounts of renewable natural gas can be produced from a variety of biomass sources. The claim regarding the greater efficiency of biogas is supported by the submission of the Gas Technical Institute (GTI), which estimates that producing biogas from renewable sources such as animal waste, forest residues and agricultural waste “can be produced at efficiencies ranging from 60 – 70%.” We are confident that using biomass to produce biomethane or renewable natural gas provides the best potential solution for rural communities because it enables the most diverse possible use of this resource – as the fuel can be burned on-site or transported via pipeline or tanker to nearby facilities for a number of different uses, including use as a transportation fuel either in a gaseous form or liquefied.

NGVAmerica supports the USDA’s efforts to promote and facilitate greater production and use of fuels from biomass. We also appreciate the fact that USDA appears willing to consider and support a wide range of diverse uses for biomass. With respect to biogas and efforts to promote its use, the Act specifically includes biogas as an advanced biofuel under section 9001(3)(B)(v). This definition recognizes biogas produced from landfill gas, sewage waste treatment gas and other sources of renewable biomass. Thus, there is no question that biogas projects potentially qualify for the new programs enacted as part of the 2008 Farm Bill. We anticipate that companies involved in facilitating biogas projects will be interested in funding under sections 9003, 9004, 9005 and possibly several of the other sections.

Biogas use as a transportation fuel has received little attention here in the U.S. Most biogas is instead used to produce electricity due to the fact that federal tax policy encourages this use but does not encourage use for transportation purposes. Currently, if biogas is used on-site to produce electricity, the operator receives a substantial tax credit (1.9 cents per KWH). If the biogas is used for any other purpose (including as a transportation fuel), it does not qualify for that tax credit. Despite this inequity, interest in biogas for transportation is growing as concern over petroleum prices and imports is encouraging more aggressive efforts to promote alternative fuel use. A number of projects are underway and several state and local governments are pursuing initiatives to increase the use of biogas. California officials have signed a memorandum of understanding with Sweden that commits them to work together to promote biogas use. A delegation of Swedish officials also is slated to visit Michigan later this month to discuss biogas development. Clean Energy Fuels, the largest provider of natural gas for transportation use in North America, recently acquired the rights to a landfill in Texas so that they can market and sell the landfill’s output of renewable natural gas. We anticipate that the availability of USDA funding to support such programs will only increase this interest particularly with respect projects in rural areas.

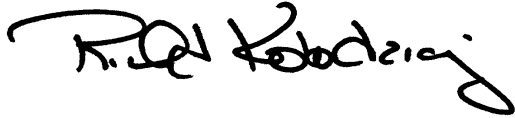
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<sup>1</sup>[http://biopact.com/2006/10/hydrogen-out-compressed-biogas-in\\_01.html](http://biopact.com/2006/10/hydrogen-out-compressed-biogas-in_01.html);  
<http://biopact.com/2007/02/study-biogas-can-replace-all-eu-imports.html>

### III. Conclusion

NGVAmerica appreciates the opportunity to provide these comments and looks forward to the chance to participate in these programs.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Kolodziej". The signature is fluid and cursive, with a large initial "R" and a long, sweeping tail.

**Please contact the persons listed below for more information:**

Richard Kolodziej  
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Washington, DC 2001  
(202) 824-7366

Jeffrey Clarke  
General Counsel & Regulatory Director  
NGVAmerica  
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Washington, DC 2001  
(202) 824-7364

# Renewable Bio-gas: An Opportunity for Substantial Carbon Reduction

Producing renewable gas (RG) and using it at the site of production or distributing it through the country's existing natural gas infrastructure is one of the most efficient ways to utilize a variety of U.S. renewable resources.

## RENEWABLE GAS FACTS

- Bio-gas from renewable sources including animal manure, forest residues and agricultural wastes can be produced at efficiencies ranging from 60–70%.
  - This compares to biomass-to-liquid-fuels efficiencies of 45–60% and biomass-to-electricity efficiencies of 20–35%<sup>1</sup>.
  - Additionally, all of the technology components to produce renewable gas from this variety of sources exist today.
- RG is the most versatile form of bio-energy, since it can be used directly at the site of production, in residential commercial or industrial applications, to produce electricity, or used in the transportation sector as compressed gas, which already is a major transportation fuel throughout the world.
- Another benefit of generating RG is that it can be delivered to customers via an existing U.S. pipeline infrastructure instead of over the road, which creates additional greenhouse gas emissions.
- In 2001, biomass accounted for 3-4% of the total primary energy consumption within the European Union. Four of the fifteen European Union member states have bio-energy shares of more than 10%; Finland (16%), Sweden (14%), Portugal (13%), and Austria (11%).<sup>2</sup>



## RECOMMENDATIONS

Congress and policy makers should consider creating an incentive for renewable bio-gas similar to the one that exists for renewable electricity and renewable liquid transportation fuels.



Waste Nut Shells  
Photo courtesy of DOE/NREL

This will create a level playing field for investors in the renewable energy industry and generate a renewable source that can be used by residential, commercial and industrial customers throughout the United States.

Renewable pipeline quality gas provides industries like steel, aluminum, chemical and heat treating a renewable option for production without any changes to their operations.

## RESOURCES FOR RENEWABLE BIO-GAS

- If the U.S. used half of this biomass source to create RG, or one quad per year\*, then about 5% of natural gas can be displaced by RG, **reducing CO<sub>2</sub> emissions by another 45–70 million metric tons per year.**
- Utilizing major dairy farms, swine and cattle feedlots to create pipeline quality gas (and simultaneously reducing methane emissions from the manure) **can add another 10 million metric tons of CO<sub>2</sub> displacement to this number.**

\*Based on the United States Department of Energy's recently completed scenario analysis<sup>3</sup> for an RPS standard of 15% renewables for electricity generation, an incremental 2 quads equivalent of biomass energy are used to help achieve this goal.

1 [http://www.sgc.se/Rapporter/resources/seminar\\_screen.pdf](http://www.sgc.se/Rapporter/resources/seminar_screen.pdf), pl 305.

2 [http://www.ec-asean-greenipnetwork.net/dsp\\_page.cfm?view=page&select=146](http://www.ec-asean-greenipnetwork.net/dsp_page.cfm?view=page&select=146)

3 <http://www.eia.doe.gov/oiaf/servicerpt/prps/rps.html>,



September 19, 2008

Robin Robinson, Confidential Assistant  
Office of the Administrator, USDA  
Rural Development, Business and Cooperative Programs, Room 5803  
South Agriculture Building, STOP 3201  
1400 Independence Ave SW  
Washington, DC 20250-3201

Dear Mr. Robinson:

Northwest Ohio greenhouse growers have come together to form the Maumee Valley Growers (MVG), an industry-based association committed to sustaining and growing our greenhouse industry. All growers benefit by working together through a collaborative process and sharing resources and knowledge to identify solutions to commonly shared problems. Our offices are located at The University of Toledo in the Urban Affairs Center.

For the last three years, our MVG organization has worked closely with area growers, academia (research) and public sector officials (city/county) to promote local awareness through branding strategies, promotional campaigns and other marketing techniques. This partnership continues to receive tremendous support by our 9<sup>th</sup> District Representative, Congresswoman Marcy Kaptur. These efforts have transitioned structured activities into tangible regional accomplishments.

One of these accomplishments was the establishment of a voluntary pooled natural gas purchasing program. This program allowed us to negotiate a level playing field for retailers, wholesalers and multi-generational greenhouse grower owner/operators not only in NW Ohio but throughout the entire state. Last year alone, our organization was able to save nearly 60 growers 16% off their gas bills. The success of this program is a direct result of offering access to ALL growers large and small regardless of individual usage requirements.

Unfortunately, the ability for our growers to replicate this success through participation in the USDA Farm Energy Bill is not possible. As you are well aware, growers doing business in urban areas or those contiguous to them are NOT eligible to apply. As many as two-thirds of our NW Ohio growers are from Lucas County and are automatically disqualified from participating. This is also true for many growers in Ohio operating facilities near Cleveland, Cincinnati, Columbus, Dayton and others.



We understand that over the years good intent has resulted in gradual unintended consequences due to population shifts. It is imperative we recognize this inequality and modify Section 9006 to accommodate ALL growers regardless of urban or suburban agricultural producer status.

We believe the language under consideration will rectify the situation:


*(1) IN GENERAL- In addition to any similar authority, the Secretary shall provide loan guarantees and grants to **agricultural producers and rural small businesses**--*

*(A) to purchase renewable energy systems, including systems that may be used to produce and sell electricity; and*

*(B) to make energy efficiency improvements.*

As our regional and statewide programs continue to develop and benefit our growers, we look forward to the opportunity to participate in the USDA energy program with equal vigor and enthusiasm.

We very much appreciate your consideration in this matter and look forward to your decision.



Joe Perlaky, Program Manager  
Maumee Valley Growers  
The University of Toledo  
419-356-4847

cc: Congresswoman Marcy Kaptur - 9<sup>th</sup>. District, State of Ohio  
Dr. Neil Reid, Director, Urban Affairs Center, Associate Professor  
Geography and Planning, The University of Toledo  
Dr. Michael Carroll, Professor/Director, Center for Regional Dev.,  
Bowling Green State University  
Randy Monhemius, USDA Business Programs Specialist - Rural Dev.  
Andy Olsen, Senior Policy Advocate, Environmental Law & Policy Ctr.

## COMMENTS ON TITLE IX, USDA "900\_" PROGRAMS

by Scott Sklar, President, The Stella Group, Ltd.

I want to begin my comments to formally thank USDA for administering this set of legislated programs not only to the letter of law, but the spirit of the law. These programs are well managed, have solid results, and are making a difference. By increasing the experience of the agricultural community with advanced energy and water technologies, that lower costs and reduce emissions, they will make the US agricultural sector more profitable and resilient.

I wish to make a recommendation to USDA addressing the entire suite of section 900\_ programs. The criteria for selection of actual technologies and projects to be funded ought to be 'first and foremost' oriented towards replicability and scalability. The US government ought to leverage the technology and service providers to a scale-up market penetration and delivery to have higher impact in this sector.

The second recommendation, is that smart energy and water investments have multiple benefits. Reduction of energy use and the related costs are a major benefit. And significant reductions of wastes and emissions, both regulated (such as SO<sub>2</sub>, NO<sub>x</sub>, particulates, and nitrogen-loaded affluent, aflatoxin, etc.) and unregulated emissions (GHG, mercury, carcinogens, etc.) will save money, reduce liability, and enhance health. But the other critical attributes of distributed energy and water technologies is sustain production when traditional utility systems fail.

Since September 11th, our homeland security and homeland defense focus has been to shore-up our critical infrastructure. That orientation has focused on backing up energy functions for first responders, communications (cellular and landline switches), transportation (bridges, railroad crossings, etc.), and monitoring/sensing/surveillance. But many experts believe this same intensity of preparedness needs to be incorporated in the agricultural and food processing sector.

That means energy back up to pipeline pumps - water, sewage, and fuels (diesel, gasoline), natural gas and irrigation, as well as refrigeration on farms, storage warehouses and even on transportation (trucks, railroad cars, etc.) , and finally back up on internal pumps, motors and process controls from ethanol plants, to dairies and canneries. Infusion of the portfolio of commercially-available renewable energy on-site technologies routinely used by the US Department Defense and commercial industry has only anecdotal distribution with the agricultural sector. For our national security and agricultural security, the United States needs energy and water safety and redundancy spread geographically throughout the agricultural sector.

These USDA Title IX programs can be a viable approach to merge three core asset values of advanced domestic renewable energy technologies - lowering energy costs and imports, reducing emissions and wastes, and significantly enhancing critical functions so the agricultural sector can withstand and maintain productivity during large-scale pipeline (water, natural gas or fuels) or electric grid failures or disruptions.

As we have shown through our programs at National Defense University for the military, educating key planners and decisionmakers is essential to ease and accelerate adoption of new technologies and applications. I strongly urge, in cooperation with State and local governments, for a more proactive role by USDA on the lessons learned about both successful and unsuccessful case studies on applications.

Again, I want to laud USDA for their willingness to embrace new programs, implement the programs wisely, and manage these programs well - it is a great national service. Thank you and thanks for the opportunity to submit my views. - Scott Sklar

Scott Sklar  
President  
The Stella Group, Ltd.  
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Web site: www.TheStellaGroupLtd.com or www.CleanEnergyFirst.co or www.stellacapitalllc.com

The Stella Group, Ltd.. is a strategic marketing and policy firm for clean distributed energy users and companies which include advanced batteries and controls, energy efficiency, fuel cells, geo-exchange, heat engines, minigeneration (natural gas/propane), microhydropower, modular biomass, photovoltaics, small wind, and solar thermal (including daylighting, water heating, industrial preheat, building air-conditioning, and electric power generation). The Stella Group, Ltd. blends distributed energy technologies, aggregates financing (including leasing), with a focus on system standardization. Scott Sklar, the Group's founder and president, lives in a solar home in Arlington and both his VA and DC office buildings have solar, Virginia and his coauthored book: The Forbidden Fuel, and A Consumer Guide to Solar Energy, was re-released for its third printing, and his ongoing commentaries and Q&As are on the largest renewable energy web portal: www.RenewableEnergyWorld.com.

Scott Sklar is Chair of the Steering Committee of the Sustainable Energy Coalition and serves on the (non-profit) Boards of Directors of, the Business Council for Sustainable Energy, and the Renewable Energy Policy Project, and CoChairs the Policy Committee of the Sustainable Buildings Industry Council.

Scott Sklar was selected as the Renewable Energy Industry Representative onto REEEP No Am Adv CommitStee of UN Int'l RE Activity in August 2006. REEEP is a Public-Private partnership and was launched by the United Kingdom along with UN agencies UNIDO and UNDP, 30 other governments, and Sklar was also appointed in April 2007 onto National Advisory Council for Environmental Policy & Technology (NACEPT) of USEPA.

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(<http://www.stylelist.com/trends?ncid=aolstyle00050000000014>)

9003 – Biorefinery Assistance—Provides loan guarantees to fund the development, construction, and retrofitting of commercial-scale biorefineries and grants to assist in paying the cost of the development and construction of demonstration-scale biorefineries. The Act provides \$75 million in fiscal year (FY) 2009 and \$245 million for FY 2010 for loan guarantee costs for the financing of commercial-scaled biorefineries. In addition, the Act authorizes appropriated funding of \$150 million for each of FY 2009–2012, for both the demonstration and commercial scaled biorefineries.

COMMENT: Commercial-scale biorefineries need to be able to produce multiple co-products in order to be competitive in the marketplace. They must be able to quickly adapt to price changes due to supply and demand and dynamically change product streams and maximize market opportunities. In the short term, the major throughput in biorefineries will be liquid transportation fuels with multiple co-product streams. In the future higher value products could possibly displace fuels as the main product stream. Economic analysis of the chemicals, energy, and agriculture markets is critical to maximize profits and ensure sustainability. Continued analysis of the streams will enable advances in conventional process such as reduced water or energy consumption, reduced emissions, or increased throughput from multiple feedstocks.

Section 9004, Repowering Assistance—Provides for payments to be made to biorefineries in existence at time of enactment of the Act to replace fossil fuels used to produce heat or power to operate the biorefineries with renewable biomass. The Act provides \$35 million for FY 2009, to remain available until expended. In addition, the Act authorizes additional appropriated funding in the amount of \$15 million for each of FY 2009–2012. Section 9005, Bioenergy Program for Advanced Biofuels—Provides for payments to be made to eligible producers to support and ensure an expanding production of advanced biofuels. The Act provides \$55 million for FY 2009 and 2010, \$85 million for FY 2011, and \$105 million for FY 2012. In addition, the Act authorizes appropriated funding in the amount of \$25 million for each of FY 2009–2012.

COMMENT: One of the largest costs to a biorefinery is power. Inexpensive power (usually coal) is used in most biorefineries today in order to reduce input or operating costs and maximize profits. Incentives to use fuels with less BTUs in order to achieve “sustainability” targets such as domestic renewable fuels and reduction in greenhouse gas emissions, will be more expensive. In order for the U.S. to be competitive globally, carbon constraints need to be enforced equally to all nations – otherwise carbon reductions will put U.S. producers at a disadvantage. The incentives need to be adequate economically to off-set costs and reward the behavior. The idea is to encourage renewable fuels through a Biorefinery, and these incentives must be careful not to put biorefineries at a disadvantage to petroleum refineries. The end goal, a reduction in emissions, must always be considered, through incentives to use renewable biomass not only applied to biorefineries but their competitors such as petroleum refineries.

## **Testimony on Implementation of Energy Title (IX) of the Farm Bill**

My name is Al Christopherson, chairman of the board for Minnesota's Agricultural Utilization Research Institute. AURI is a nonprofit organization created to improve the economy of rural Minnesota through the development of new uses for the state's agricultural commodities. A key area of value-added advancement continues to be in the development and implementation of renewable energy enterprises fueled by agricultural products and other renewable sources.

AURI has a long history of advancing renewable energy from agricultural products, having worked extensively on biofuels research and the development of alternative energy sources such as biodiesel, biomass and biogas. Since 2004, AURI has operated the Center for Producer-Owned Energy, created from USDA funding awarded through the Agricultural Innovation Center demonstration program. Since 2006, AURI has coordinated the Minnesota Renewable Energy Roundtable, a statewide effort involving more than 100 organizations to identify barriers and create action plans for the advancement of renewable energy opportunities in the state.

It is our belief that this background and experience can help contribute to the efficiency and effectiveness of several of the energy programs outlined in this bill. It has been our experience that providing local, grassroots assistance that can be applied locally offers businesses and community the greatest chance for commercial success.

### **Section 9003 – Biorefinery Assistance**

AURI understands the importance of the Biorefinery Assistance program. AURI programs revolve around determining technical and economic feasibility and commercial viability. It is important that unbiased studies are conducted and to the extent possible, results shared with other interested parties. This prevents unnecessary duplication of effort and paves the way for future groups and the next generation of development. It is vital that economies of scale are considered as well as plans for applying what is learned on demonstration-scale to a commercial-sized operation.

It has been our experience that a key factor in the viability of any renewable energy enterprise, particularly one involving biomass, revolves around the feedstock. Most biomass has different cost, handling, storage and transportation considerations than traditional energy sources. These variables factor heavily into a project's operating costs and overall viability. We have found it vital that organizations venturing into this arena have a network of resources to assure access to the best possible solutions and implementation plans.

### **Section 9004 –Repowering Assistance**

For existing biorefineries, energy costs greatly impact profitability. Many are looking to offset those costs by adapting new technologies utilizing biomass or other available resources to their operations. AURI has successfully assisted several Minnesota processors in their efforts to

repower using biomass. These plants are using feedstocks including agricultural residue, wood fibers, ethanol processing coproducts and other low-value sources to power their operations. Through technologies such as gasification, fluid bed reactors and anaerobic digesters, many of these processors have significantly reduced their need for fossil fuels.

Installing many of the current technologies requires significant capital investment. Funding through the Repowering Assistance program will certainly help offset that barrier. It is vital that biorefineries that are considering repowering get unbiased information and consider all possible technologies given the available feedstocks. We have found that tapping into expertise is vital to success and helps opportunities to develop more rapidly.

Co-locating facilities should also be considered. Currently in Minnesota, warm water from a sugar processing plant is being captured for an aquaculture facility and excess heat from a refinery is being captured for greenhouses that produce food for local markets. This co-location can maximize efficiency and spur development as well as wise energy use.

### **Section 9005-Biorefinery Program**

The Mustang wasn't the first vehicle produced by Henry Ford. It was developed after several generations of vehicles. Similarly, efforts are underway across the country to develop the next generation of biofuels using alternative feedstocks.

Key to the success of this program will be the ability to foster implementation. Our experience has been that many technologies using biomass and forestry resources for fuel are technically feasible but aren't economically competitive. It will take funding, as well as a network of support, to develop sustainable options. These options will need to be proven both technically and economically prior to implementation. Unbiased evaluations need to be developed and that information shared with interested parties in an effort to spur larger scale development

### **Section 9009 – Rural Energy Self-Sufficiency Initiative**

For significant steps toward energy independence to be taken, efforts need to proceed beyond individual enterprises to focus on entire industries and communities. AURI has partnered with several groups in Minnesota to evaluate opportunities and develop handbooks detailing findings in areas such as biodiesel feasibility and community wind development. These types of activities help move groups toward self-sufficiency.

The Rural Energy Self-Sufficiency program can have a significant impact on this type of development by supporting efforts to view energy needs on a broader scale. In our estimation, this program can be most successful through partnering, collaborating and leveraging all appropriate local resources. Once opportunities are identified, implementation needs to occur.

AURI is in the process of developing a community energy assessment template that can be applied to communities across the state. Once the template is complete, the effectiveness of this

program can be multiplied if non-site specific information can be shared with other interested communities. While audits of each community will reveal unique resources and circumstances, some baseline information could be universally beneficial.

### **Section 9011 – Biomass Crop Assistance Program**

As we have seen in our extensive work in biomass energy development, the feedstock itself is often the most important input. This Biomass Crop Assistance Program can help to mitigate some of the issues facing large-scale cellulosic energy development by helping to identify crops appropriate for the region in which conversion will take place. Varied weather, soil and climatic conditions impact crop yield and vitality. Research that identifies potential crops that thrive in particular conditions will be extremely valuable in furthering the development of cellulosic crops.

In conclusion, one of the most important lessons that AURI has learned in its twenty year history is that no project should stand in isolation, but rather a broad collaborative network of experts should be created to assure success from feasibility to implementation. Whether a project is found to be viable or not, the lessons learned from each should add to a broader body of knowledge that is easily accessible and fosters wider success in the next generation of programs.

Thank you for the opportunity to provide testimony today. It is encouraging to see serious attention being given to the development of long-term energy solutions from renewable sources that not only work toward energy independence, but also economic prosperity for communities.



September 16<sup>th</sup>, 2008

Ms. Robin Joy Robinson  
Special Assistant to the Administrator  
USDA Rural Business and Cooperative Programs  
1400 Independence Avenue, SW (Room 4231)  
Washington, DC 20250

**RE: Implementation of Title IX, Energy Authorities of the Food, Conservation and Energy Act of 2008**

Ms. Robinson,

Thank you the opportunity to provide comments to assist the USDA on the implementation of certain new authorities authorized under Title IX.

BlueFire Ethanol Fuels, Inc. is currently developing cellulosic ethanol projects in California and other area of the US, utilizing a patented concentrated acid hydrolysis process (“Technology”) owned by Arkenol, Inc.

Our Technology has been demonstrated at two pre-commercial facilities. The first of two pilot plant facilities was located in Orange, California and operated from the mid to late 1990’s. The second facility (“Izumi”) was located in Izumi, Japan and operated for over four years. The Izumi facility was decommissioned in late 2006 after a successful demonstration campaign jointly conducted between JGC and Japan’s New Energy Development Organization known as NEDO. In both installations, the process demonstrated the use of a wide spectrum of cellulosic feedstocks, including, but not limited to; rice straw, wheat straw, green waste, various species of wood residues, sorted MSW, and paper.

BlueFire currently has three facilities in various stages of development consisting of one commercial demonstration scale and two commercial scale facilities.

**Facility Highlights**

BlueFire Ethanol Lancaster, LLC (“Lancaster”) –

- Located north of Lancaster, California adjacent to the Lancaster Landfill
- The plant is designed to convert approximately 130 bone dry tons per day of cellulosic materials to about 3.1 million gallons per year of ethanol
- Land Use Permit from the LA County Regional Planning Division has been issued to allow construction of the facility.



- Issuance of our air permit from the Antelope Valley Air Pollution Control District is expected shortly.
- Subject to obtaining all required permits, start of construction is expected by the end of Q4 08'-Q1 09' with completion and startup commencing twelve months later.
- Engineering is in the final stages of detailed design
- Facility will utilize the combustion of lignin (a process byproduct) in a solid fuel boiler to satisfy approximately 70% of its energy needs with the balance being made up of other renewable biomass.
- Facility will divert approximately 43,000 dry tons of biomass per year from landfill burial.
- Facility is located within a rural development area as determined under USDA's Rural Development programs.

**BFRE II ("DOE Facility") –**

- To be located in Riverside County
- Converting approximately 700 metric dry tons per day of cellulosic materials to about 18 million gallons per year of ethanol
- BlueFire has been selected to receive a \$40 million cost share award from the U.S. Department of Energy
- Preliminary permitting and siting efforts have begun with permit applications to be filed by the end of this year
- Assuming a one year permitting process, start of construction by end of 2009 is expected with start of operation 12 to 18 months later.

**BFRE III –**

- This project will be submitted in response to a recent U.S. Department of Energy invitation to BlueFire to submit a project under DOE Loan Guarantee program
- This project is targeted to produce 55 million gallons of ethanol per year
- Potential locations in California and other states are currently under review

We provide the following preliminary comments for Title IX - Section 9003 & Section 9005. We would welcome the opportunity to continue the dialogue with USDA to assist in the development of regulations that satisfy the requirements of the Act and are responsive to industry needs.

**Section 9003: Biorefinery Assistance**

**Grant (Demonstration Scale)**

Suggested additions for subsection (d)(C) Scoring System: We suggest that other commercialization hurdles beyond technology development be included in the evaluation in order to properly assess the commercialization capability of the proposal. Some of those factors include:

- Level of completion of the project engineering
- Level of completion of environmental permitting
- Level of acceptability to the region

### **Loan Guarantee (Commercial Scale)**

1.) The definition of commercial scale should not be a definitive volume of product, rather it should be a scale that can support the economics required to meet debt financing. We suggest a definition such as:

Commercial Scale” means any Advanced Biofuel facility that can reasonably demonstrate the ability to economically support a Lender’s customary commercial interest rate with a sufficient debt coverage ratio.

2.) **Eligible Lender** – The “eligible lender” definition should be broad to allow maximum participation and encourage innovative partnerships among strategically aligned entities. The definition should include “any individual or legal entity either recognized or approved by the USDA with the credit worthiness to lend money to the project and may include: commercial banks, savings and loans, insurance companies, institutional investors, investment banks, factoring companies, venture capital investment companies, or trusts acting on behalf of bondholders and lenders.

3.) **Subsection (e)(2)(B)(iii) Authority to Guarantee Loan** – suggest “The Secretary may guarantee up to 100 percent of the principal and interest due on a loan guaranteed in subsection (c)(2)”.

We applaud USDA’s leadership in advancing energy issues as it relates to enhancing our nation’s agricultural sectors. We look forward to continuing the dialogue with you and your staff in the expeditious implementation of the Title IX sections of the 2008 Farm Bill.

Sincerely,

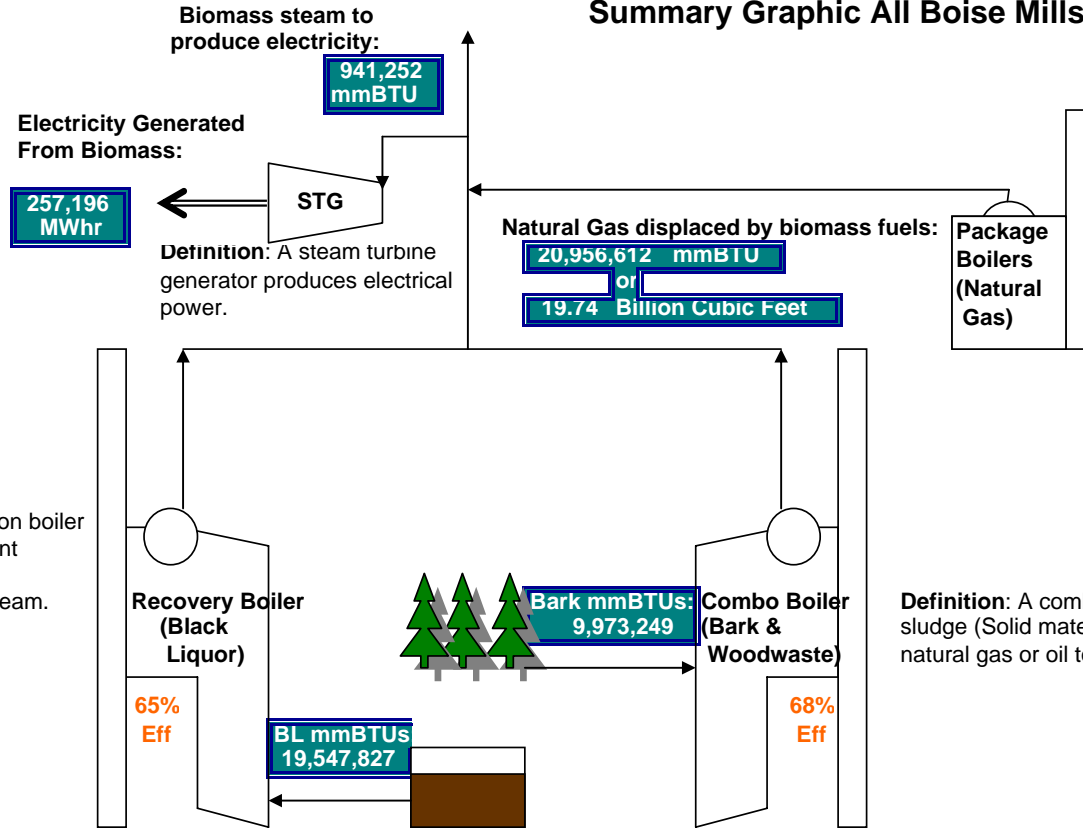


Arnold R. Klann  
President & CEO  
BlueFire Ethanol Fuels, Inc.  
Email: [arklann@bluefireethanol.com](mailto:arklann@bluefireethanol.com)

YTD (through August) 2008 (All Boise Mills)

Total Biomass BTU's used to make steam:	29,521,076	mmBTU
Total mmBTU's natural gas displaced by biomass:	23,371,132	mmBTU
Total amount of natural gas displaced by biomass:	21.93	Billion cubic ft
Of this amount, portion used to self-generate electricity:	941,252	mmBTU
Total Electricity self-generated from biomass fuels:	257,196	MWhrs

# Summary Graphic All Boise Mills



**Definition:** A boiler fired with natural gas to produce steam.

**Biomass** - Forest wood used as a fuel for boilers to produce steam to generate energy, heat or electricity.

**Definition:** A combination boiler used to recover the spent chemicals from cooking liquor and to produce steam.

**Definition:** A combination boiler fired with biomass, sludge (Solid material filtered out of mill wastewater that is burned in boilers.), natural gas or oil to produce steam.

YTD (August 2008) Energy From Biomass

**Jackson Mill Data**

Black Liquor MMBTUs to make steam:

Hog Fuel MMBTUs to make steam:

**Total Biomass MMBTUs**

	<u>Jan-08</u>	<u>Feb-08</u>	<u>Mar-08</u>	<u>Apr-08</u>	<u>May-08</u>	<u>Jun-08</u>	<u>Jul-08</u>	<u>Aug-08</u>
	430,890	272,508	560,407	407,052	445,773	429,581	419,391	434,332
	212,269	151,134	288,154	209,421	221,019	205,453	222,475	160,125
	<b>643,159</b>	<b>423,642</b>	<b>848,561</b>	<b>616,473</b>	<b>666,792</b>	<b>635,034</b>	<b>641,865</b>	<b>594,457</b>
MMBTUs of Natural Gas Displaced:	517587	341343	683182	496329	536641	510897	516935	477074
Million Cubic Feet of Natural Gas Displaced:	471	310	621	451	488	464	470	434
MMBTUs to STG	384481	353586	384150	370499	360554	348658	331778	344340
Power Boiler Natural Gas MMBTU's	330943	206214	294183	275910	266287	239400	234904	234905
MMBTUs to STG from Black Liquor	53538	147372	89967	94589	94267	109258	96874	109435
Steam Turbine MMBTU's consumed	48619	31075	63140	47495	46260	45086	45086	45087
BL MMBTUs to STG	6770	12952	14787	12126	12095	14128	13164	14329
Self-Generated Electricity from Black Liquor (MWhr):	1593	3047	3479	2853	2846	3324	3098	3372

YTD

3,399,933

1,670,051

5,069,984

4,079,989

3,709

2,878,047

2,082,746

795,301

371,848

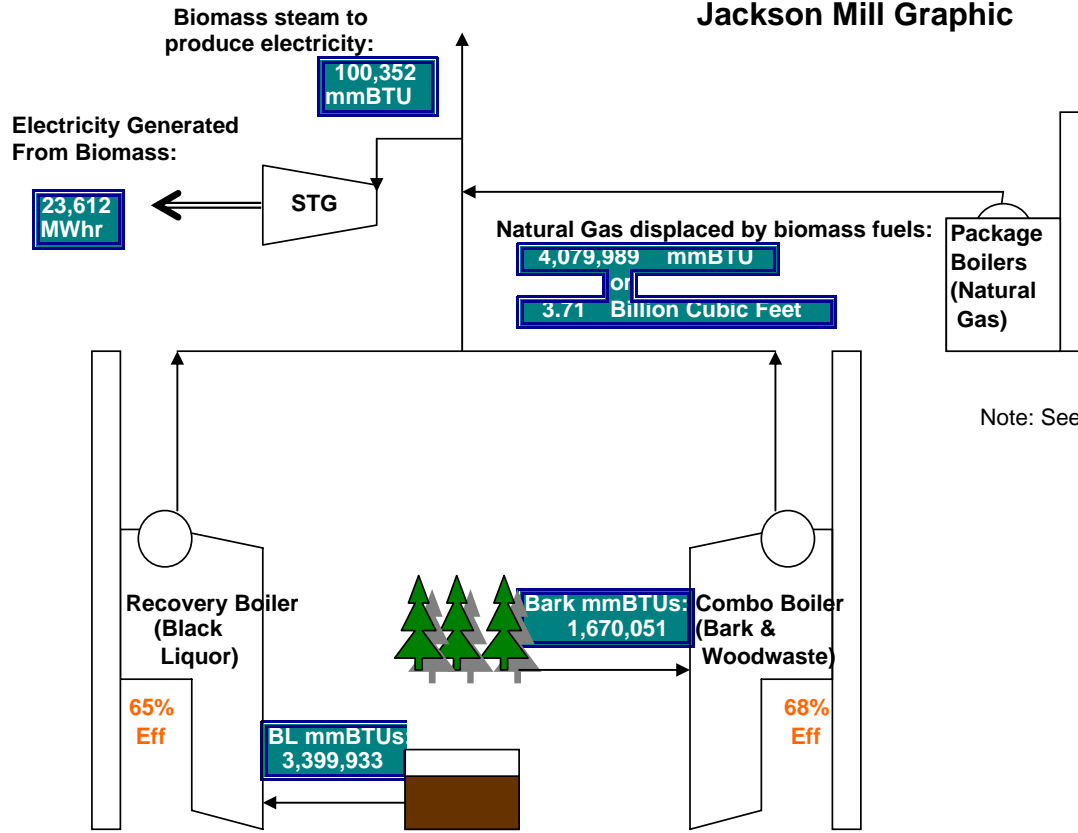
100,352

23,612

YTD (through August) 2008 (Jackson Mill Summary)

Total Biomass BTU's used to make steam:	5,069,984	mmBTU
Total mmBTU's natural gas displaced by biomass:	4,079,989	mmBTU
Total amount of natural gas displaced by biomass:	3.71	Billion cubic ft
Of this amount, portion used to self-generate electricity:	100,352	mmBTU
Total Electricity self-generated from biomass fuels:	23,612	MWhrs

# Jackson Mill Graphic



Note: See summary page for component definitions.

YTD (August 2008) Energy From Biomass



**Wallula Mill Data**

Black Liquor MMBTUs to make steam:

Hog Fuel MMBTUs to make steam:

**Total Biomass MMBTUs**

<u>Jan-08</u>	<u>Feb-08</u>	<u>Mar-08</u>	<u>Apr-08</u>	<u>May-08</u>	<u>Jun-08</u>	<u>Jul-08</u>	<u>Aug-08</u>
609,715	352,019	769,697	593,139	655,998	385,595	641,743	627,818
132,446	104,707	224,698	166,986	146,054	159,361	152,565	144,436
<b>742,161</b>	<b>456,726</b>	<b>994,395</b>	<b>760,125</b>	<b>802,052</b>	<b>544,956</b>	<b>794,308</b>	<b>772,254</b>

MMBTUs of Natural Gas Displaced:

Million Cubic Feet of Natural Gas Displaced:

599605	370977	807421	616793	648241	445581	642658	624482
545	337	734	561	589	405	584	568

YTD

4,635,722

1,231,253

5,866,976

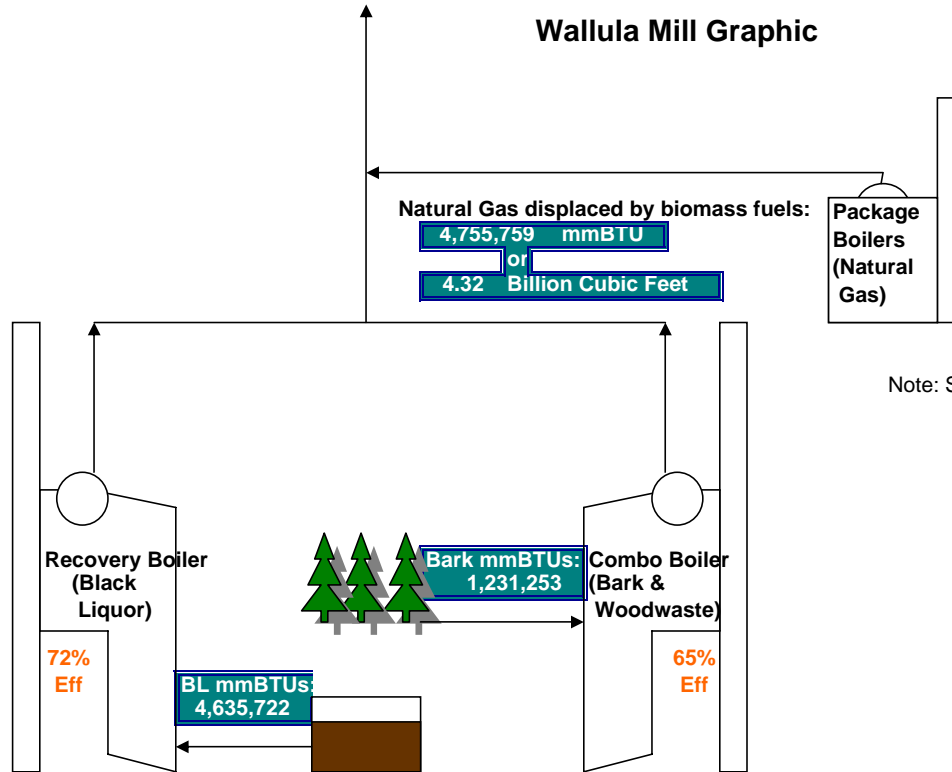
4,755,759

4,323

YTD (through August) 2008 (Wallula Mill Summary)

Total Biomass BTU's used to make steam:	5,866,976 mmBTU
Total mmBTU's natural gas displaced by biomass:	4,755,759 mmBTU
Total amount of natural gas displaced by biomass:	4.32 Billion cubic ft

# Wallula Mill Graphic



Note: See summary page for component definitions.

YTD (August 2008) Wallula Energy From Biomass

## DeRidder Mill Data

Black Liquor MMBTUs to make steam:

Hog Fuel MMBTUs to make steam:

### Total Biomass MMBTUs

MMBTUs of Natural Gas Displaced:

Million Cubic Feet of Natural Gas Displaced:

MMBTUs to STG

Power Boiler Natural Gas MMBTU's

MMBTUs to STG from Black Liquor

Steam Turbine MMBTU's consumed

BL MMBTUs to STG

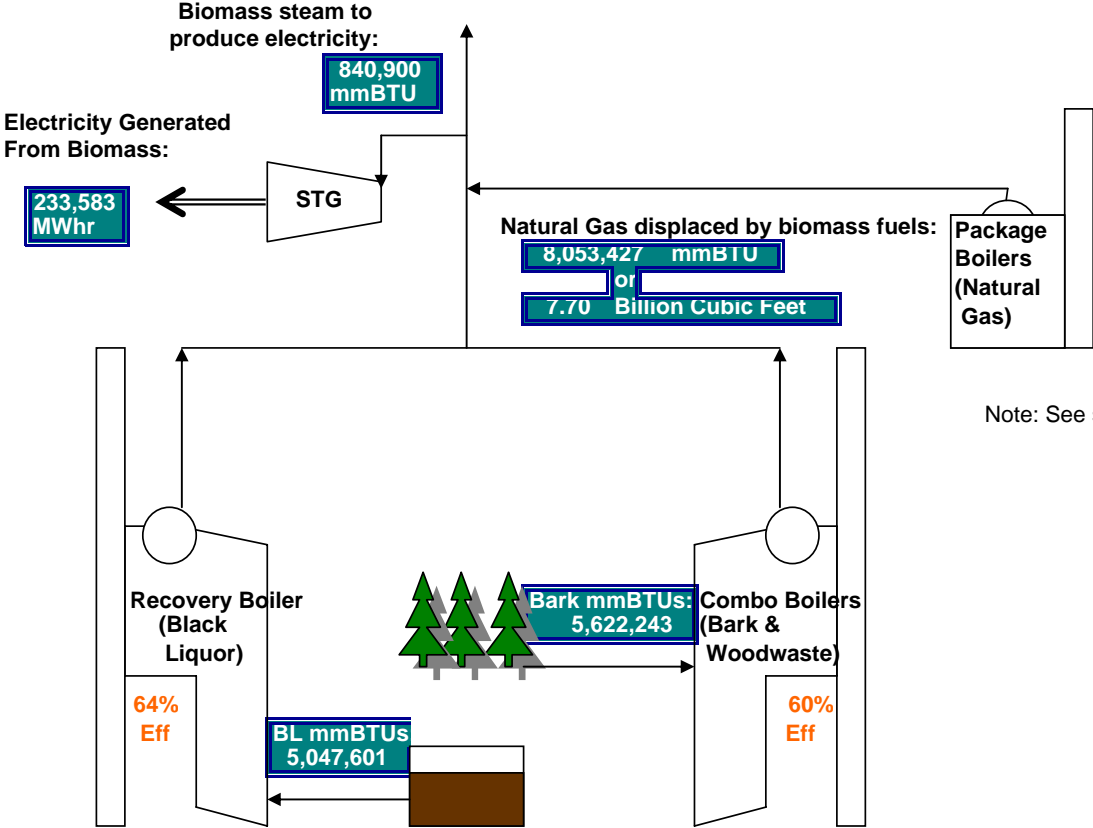
Self-Generated Electricity from Black Liquor (MWhr):

	<u>Jan-08</u>	<u>Feb-08</u>	<u>Mar-08</u>	<u>Apr-08</u>	<u>May-08</u>	<u>Jun-08</u>	<u>Jul-08</u>	<u>Aug-08</u>	YTD
	644,472	457,474	513,450	674,060	708,996	658,120	708,467	682,562	5,047,601
	734,386	531,597	627,344	790,558	790,350	633,331	731,440	783,237	5,622,243
	<b>1,378,858</b>	<b>989,071</b>	<b>1,140,794</b>	<b>1,464,618</b>	<b>1,499,346</b>	<b>1,291,451</b>	<b>1,439,907</b>	<b>1,465,799</b>	10,669,844
	1040358	746026	859774	1104553	1131668	977068	1088150	1105832	8,053,427
	995	713	822	1056	1082	934	1040	1057	7,699
	1640939	1145283	1335170	1571720	1596889	1390928	1566384	1569031	11,816,344
	262081	156211	194375	107102	97544	99477	126477	103233	1,146,500
	1378858	989072	1140795	1464618	1499345	1291451	1439907	1465798	10,669,844
	139320	93996	54000	130176	136908	123732	126216	123912	928,260
	117069	81175	46139	121305	128545	114883	116025	115759	840,900
	32519	22549	12816	33696	35707	31912	32229	32155	233,583

YTD (through August) 2008 (DeRidder Mill Summary)

Total Biomass BTU's used to make steam:	10,669,844	mmBTU
Total mmBTU's natural gas displaced by biomass:	8,053,427	mmBTU
Total amount of natural gas displaced by biomass:	7.70	Billion cubic ft
Of this amount, portion used to self-generate electricity:	840,900	mmBTU
Total Electricity self-generated from biomass fuels:	233,583	MWhrs

### DeRidder Mill Graphic



Note: See summary page for component definitions.

YTD (August 2008) Energy From Biomass

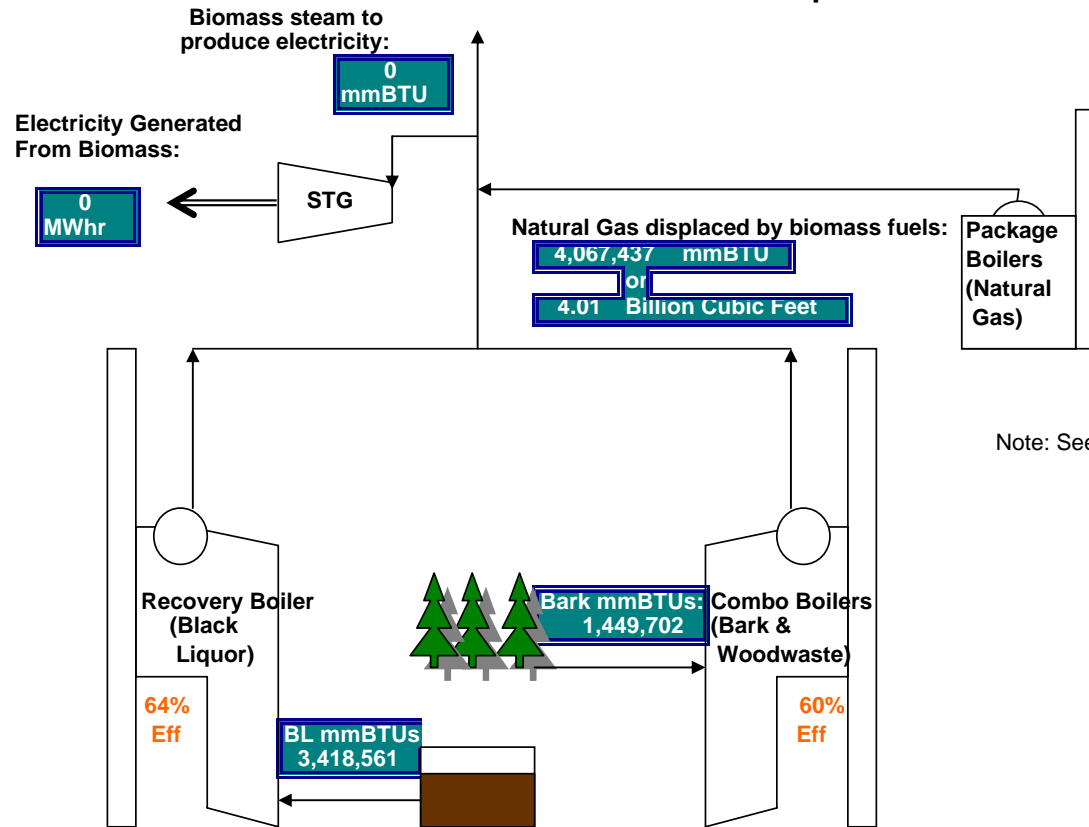




YTD (through August) 2008 (I'Falls Mill Summary)

Total Biomass BTU's used to make steam:	4,868,262 mmBTU
Total mmBTU's natural gas displaced by biomass:	4,067,437 mmBTU
Total amount of natural gas displaced by biomass:	4.01 Billion cubic ft
Of this amount, portion used to self-generate electricity:	0 mmBTU
Total Electricity self-generated from biomass fuels:	0 MWhrs

# I'Falls Mill Graphic



Note: See summary page for component definitions.

YTD (August 2008) Energy From Biomass

**St. Helens Mill Data**

Black Liquor MMBTUs to make steam:

Hog Fuel MMBTUs to make steam:

**Total Biomass MMBTUs**

MMBTUs of Natural Gas Displaced:

Million Cubic Feet of Natural Gas Displaced:

MMBTUs to STG

Power Boiler Natural Gas MMBTU's

MMBTUs to STG from Black Liquor

Steam Turbine MMBTU's consumed

BL MMBTUs to STG

Self-Generated Electricity from Black Liquor (MWhr):

9 PB Steam (klbs/hour) 629f905.pv

6 PB steam 626f605.pv

7 PB steam 627f705.pv

8 PB steam 628f805.pv

2 rec steam (klbs/hour) 522f706.pv

3 rec steam 523f808.pv

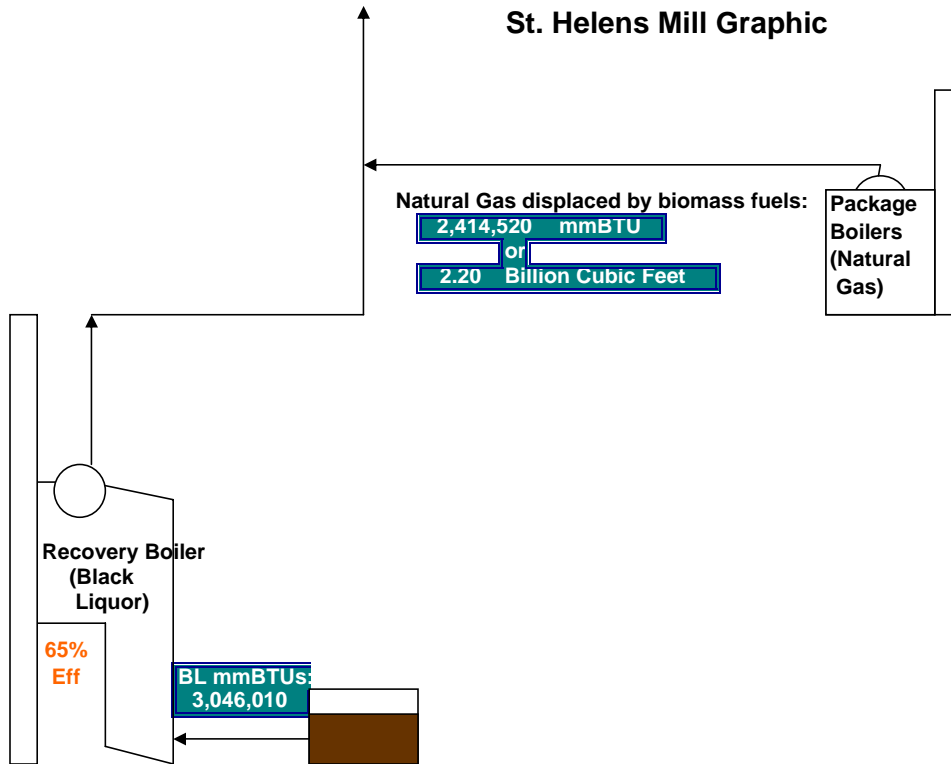
MMBTU month

	<u>Jan-08</u>	<u>Feb-08</u>	<u>Mar-08</u>	<u>Apr-08</u>	<u>May-08</u>	<u>Jun-08</u>	<u>Jul-08</u>	<u>Aug-08</u>	<u>Sep-08</u>	YTD
Black Liquor MMBTUs to make steam:	375,099	353,496	394,878	374,986	414,909	383,509	361,988	387,145		3,046,010
Hog Fuel MMBTUs to make steam:	0	0	0	0	0	0	0	0		0
<b>Total Biomass MMBTUs</b>	<b>375,099</b>	<b>353,496</b>	<b>394,878</b>	<b>374,986</b>	<b>414,909</b>	<b>383,509</b>	<b>361,988</b>	<b>387,145</b>		<b>3,046,010</b>
MMBTUs of Natural Gas Displaced:	297335	280210	313013	297245	328891	304001	286942	306884		2,414,520
Million Cubic Feet of Natural Gas Displaced:	270	255	285	270	299	276	261	279		2,195
MMBTUs to STG	0	0	0	0	0	0	0	0		0
Power Boiler Natural Gas MMBTU's	287,589	263,858	238,671	230,917	203,916	193,776	197,632	174,398		1,790,756
MMBTUs to STG from Black Liquor	0	0	0	0	0	0	0	0		0
Steam Turbine MMBTU's consumed	0	0	0	0	0	0	0	0		0
BL MMBTUs to STG	0	0	0	0	0	0	0	0	0	0
Self-Generated Electricity from Black Liquor (MWhr):	0	0	0	0	0	0	0	0	0	0
9 PB Steam (klbs/hour) 629f905.pv	3291	3060	3113	3270	3405	2963	3207	2395		
6 PB steam 626f605.pv	3896	2958	3284	2090	2993	3131	3104	2945		
7 PB steam 627f705.pv	334	380	0	758	0	81	83	278		
8 PB steam 628f805.pv	2382	2688	1822	1833	624	499	411	388		
	287589	263858	238671	230917	203916	193776	197632	174398		
2 rec steam (klbs/hour) 522f706.pv	4587	4127	4117	4088	4661	4708	4571	5141		
3 rec steam 523f808.pv	8329	8046	9480	8825	9626	8498	7894	8190		
MMBTU month	375099	353496	394878	374986	414909	383509	361988	387145		

YTD (through August) 2008 (St. Helens Mill Summary)

Total Biomass BTU's used to make steam:	3,046,010	mmBTU
Total mmBTU's natural gas displaced by biomass:	2,414,520	mmBTU
Total amount of natural gas displaced by biomass:	2.20	Billion cubic ft
Of this amount, portion used to self-generate electricity:	0	mmBTU
Total Electricity self-generated from biomass fuels:	0	MWhrs

# St. Helens Mill Graphic



Note: See summary page for component definitions.

YTD (August 2008) Energy From Biomass

## **Boise, Inc.**

### **Biomass Overview:**

In general, the forest products industry is very efficient and one of the largest producers and users of renewable biomass energy in the world. When a tree is harvested, the largest part of the tree goes to pulp mills, sawmills or plywood plants where the bark is removed and the logs converted into pulp, lumber, plywood or engineered wood products. The bark is burned in highly efficient boilers and the steam is used to dry the paper, lumber or the veneer, which minimizes the need for fossil fuels.

### **Boiler Overview:**

The chemicals collected during the pulp washing process are reused in the chemical recovery (kraft) process. These chemicals are concentrated in an evaporation process then burned in the recovery boiler. During the evaporation process a by-product, soap, is separated and pumped to the tall oil unit for further processing. Collected concentrated chemicals and organic components of lignin (biomass) are burned in the recovery boiler to produce a by-product steam. Steam generated by the recovery operation provides energy required for the mill's processes. As a by-product of the combustion process, the inorganic components of the chemicals fall to the bottom of the recovery boiler where they are removed and conveyed to a causticizing process; there they are treated with lime (calcium oxide) to be reused. After causticizing, the reacted lime (calcium carbonate) is separated by filtration, burned to calcium oxide in the limekiln and stored for reuse. Additional steam is obtained from a combination boiler, which primarily burns wood waste (biomass), no. 6 fuel oil or natural gas. Package boilers are fired with natural gas or oil to generate steam for the paper making process, when needed. The energy from the boilers is used to operate the pulp mill and to dry the paper. These boilers often are also connected to a steam turbine to co-generate electricity. The result, again, is minimizing the use of fossil fuels.

**Written Statement**  
**Rick Grant, Regional Manager, Alabama Operations**  
**Boise Inc.**  
**USDA Hearing – Energy Title –**  
**Food, Conservation, and Energy Act of 2008 (P.L. 110-246)**  
**September 4, 2008**

Thank you for the opportunity to appear before the U.S. Department of Agriculture's office of Rural Development regarding this important meeting on "Farm Bill Renewable Energy Provisions" of the Food, Conservation, and Energy Act of 2008 (P.L. 110-246).

My name is Rick Grant, and I am the regional manager of Alabama Operations for Boise Inc. I am speaking today on behalf of Boise Inc.'s 4,600 employees. Headquartered in Boise, Idaho, Boise Inc. is publicly-traded on the New York Stock Exchange and manufactures packaging products and papers, including corrugated containers, containerboard, label and release and flexible packaging papers, imaging papers for the office and home, printing and converting papers, newsprint, and market pulp. We own and operate significant paper and pulp mills in Alabama, Minnesota, Louisiana, Washington, and Oregon, and generate revenues in excess of \$2 billion annually.

My objective today is to draw attention to the unintended effects that government subsidization of biomass-based renewable energy initiatives may have on the natural supply/demand balance of our nation's raw wood materials.

I request that as you develop implementing regulations, you be fully aware of consequences on companies in forest-based industries, which are seeing new pressures on raw wood materials supply from government-subsidized bio-energy companies. Given this new competition, established industries not only contend with higher input costs for energy, chemicals, and freight, but also stand to be unfairly disadvantaged by competing with subsidized entities for vital biomass feedstock. Wood fiber is the key component in the production of our paper and packaging products.

**Boise's Commitment to Sustainability**

At Boise, we continuously strive to balance the efforts of sustainability with customer requirements, environmental perspectives, and returns to our investors. Our integral values are working safely, using our natural resources wisely, engaging our communities where we operate, and taking positions to improve the environment for our future generations. All of our employees are involved in learning and communicating the benefits of sustainable business practices.

More specifically:

- Boise has obtained Chain of Custody Certification from the Forest Stewardship Council, which certifies and tracks attributes from fiber source to customer.

- Boise's chain of custody and wood fiber procurement systems are certified by the Sustainable Forestry Initiative® (SFI), which tracks wood procurement and fiber source attributes. SFI endorses forest management practices that ensure all forest values – wildlife habitat, watershed, recreation, and timber production – are sustained for the long term.
- Boise's chain of custody system is also certified by The Programme for the Endorsement of Forest Certification.
- In addition to our managed forest certifications, each of our paper manufacturing facilities has an environmental management system that is certified to meet the ISO 14001 standard by an independent third party.
- Boise has made it a priority to protect air quality in areas where our manufacturing facilities are located. From 2000 to 2004, we reduced greenhouse gas (GHG) emissions by five percent companywide. In 2007, we set a new goal for further reductions of at least 10 percent by 2014. It's part of our commitment as a member of EPA's Climate Leaders Partnership, which Boise joined in 2005. We'll achieve this through energy conservation programs, by converting from fossil fuels to renewable biomass fuels, and by exploring combined heat and power (cogeneration) opportunities. Climate Leaders is a voluntary program to help companies develop GHG inventories and set aggressive GHG reduction goals. In 2006, our GHG emissions were 3 percent below our 2004 Climate Leaders baseline.
- In addition, Boise is a member of the Chicago Climate Exchange, which operates a cap and trade system for greenhouse gas emissions, and a member of ENERGY STAR®, the EPA voluntary program designed to help companies protect the environment through assessing and improving energy performance.

In general, the forest products industry is very efficient and one of the largest producers and users of renewable biomass energy in the world. When a tree is harvested, the largest part of the tree goes to sawmills or plywood plants where the bark is removed and the logs converted into lumber, plywood or engineered wood products. The bark is burned in highly efficient boilers and the steam is used to dry the lumber or the veneer, which minimizes the need for fossil fuels. Even the sawdust produced during lumber milling is used to make particleboard for furniture production.

Next, the residual parts of the log are chipped into small pieces and shipped to a pulp mill to produce wood pulp and eventually paper. During the chemical pulping process, the wood fibers are separated from the lignin, the naturally occurring "glue" which binds fibers together in a tree. The lignin and the chemicals used to extract it are put through a recovery process through which the chemicals are recycled and the lignin is burned in a boiler, providing the mill with a renewable biomass based source of energy. In many cases, mill power boilers burn additional biomass, such as bark. The energy from the boilers is used to operate the pulp mill and to dry the paper. These boilers often are also connected to a steam turbine to co-generate electricity. The result, again, is minimizing the use of fossil fuels.



At Boise Inc., approximately 65% of the energy used in our manufacturing processes comes from renewable sources, with the bulk being biomass as I've described. While this may sound like a high rate, it is not unusual for the forest products industry.

Given our commitment to sustainability, and the fact that we operate *de facto* biorefineries already, Boise supports the movement to biomass-based energy and understands the vital role it plays in reducing our country's dependence on fossil-fuels and greenhouse gas emissions. However, the government and legislative emphasis on biomass energy has significant implications for our company and our peers in the forest-products industry.

For example, in the state of Alabama, where we operate our Jackson paper mill, we are seeing a rapidly expanding number of new and planned bio-energy facilities that will compete with us for wood biomass in that state. In Minnesota, three pellet mills, a gasification plant, a bio-fuel cube facility, and two energy-generating plants are under consideration within one to 260 miles of our International Falls mill. All would consume mill residue, open market biomass and/or roundwood and woody biomass. In the Pacific Northwest, where we operate two paper mills, there are also a large amount of incremental boiler increases and usage on the horizon. (A list of these operations is attached to my written statement.)

The reasons for this increased activity, we believe, are partly global in nature, and partly a result of pressure in the U.S. to identify alternative sources of fuel given the high cost of oil and other petroleum-based products.

In terms of global factors, various environmental initiatives, including cap and trade, are emerging from the European Union and their members. This is providing an impetus for that region of the world to look for alternative fuels to meet their environmental objectives. The U.S. is one of their targets for alternative fuel supplies.

Here in the U.S., as you know, there are several specific drivers contributing to this trend. These include EPA's development of a renewable fuels standard (RFS) that was enacted as part of PL 110-140, the Energy Security and Independence Act of 2007. Development of regulations for the Energy Title of the Farm Bill by your office is a critical component to this situation.

I would like to now address specific elements of Title IX on Energy of the 2008 Farm Bill.

### **Biorefinery Assistance**

Specifically, the Energy Title of the Farm Bill provides \$1 billion to promote biomass energy, including forest-based biomass energy, in several programs. Sec. 9003 calls for "grants and loan guarantees to new and retro-fitted commercial scale biorefineries." The Secretary must take into consideration whether the project "will have a positive impact on resource conservation, public health, and the environment."

Moreover, in Section 9003 (Biorefinery Assistance), the Secretary must evaluate several criteria including: “whether the applicant can establish that if adopted, the biofuels production technology proposed in the application will not have any significant negative impacts on existing manufacturing plants or other facilities that use similar feedstocks” (p. 424). We believe this determination is essential to avoid potential economic hardship on mill operations already using such fiber.

In addition, the legislation provides \$320 million in mandatory funding for loan guarantees for commercial biorefiners. \$250 million of the maximum amount is guaranteed for fiscal years 2009 and 2010. The Joint Managers state that “existing facilities including wood products facilities” should be eligible for this program (p. 217). It is essential that funds amending the Biomass Research and Development Act of 2000 be provided to allow the Departments of Agriculture and Energy to work with the Forest Service to implement necessary research for this program.

Lastly, (Sec. 9005) the 2008 Farm Bill includes \$300 million over a period of four years to fund biomass growers, including funding a number of factors that will promote research and development of biofuels and biobased products. In this regard, we urge that the Agency factor in the following Managers’ statement: “with respect to forest biomass, the feedstock for the production of advanced biofuels is often the same feedstock used by forest products facilities, including pulp and paper mills. The Managers encourage the Secretary to consider competing market outlets when establishing the payment rate for such feedstocks” (p. 226, Joint Statement of Managers).

### **Biomass Crop Assistance**

As we have articulated, our operations generate a significant amount of renewable energy in which woody biomass is a key feedstock. We urge (Sec. 9011) that current wood products operations be eligible for remuneration under Section (d). We believe that this may have been the original intent of the legislation and we believe that by the Agency taking this position, there will be greater incentive for my company and others to expand their renewable energy supplies.

### **Tax Provisions of the 2008 Farm Bill**

The National Academy of Sciences (Sec. 15322, P. 626) is to prepare an analysis of the tax credit’s “impact on regional agricultural and silvicultural capabilities of commercially available forest inventories.” This study must be completed 36 months after enactment of this legislation. We urge that this analysis be conducted in a timely manner, and offer our help in providing data on the impact of ethanol to forest inventories.

## **Boise Position**

We appreciate the new economic development opportunities in our local areas and understand the need to diversify our nation's energy portfolio. But we must ensure that the existing wood-consuming mills are given a fair opportunity for survival.

We realize that it is not the intent of bio-energy producers to harm existing wood-using industries. However, it is critical that economic balance be the focus of the Agency's developing regulations, otherwise we may damage the economic equilibrium of our local and rural areas and create unintended consequences for our operations and our employees.

History has shown in many industries that subsidized competitors behave differently in the marketplace than unsubsidized competitors. Given that such companies need not rely solely on market forces to turn a profit, they can be less disciplined in their business approach and thus upset rational supply and demand. If new/planned bio-energy producers, bolstered by subsidies and incentives, disproportionately consume, and consequently run up the prices on, chips/round wood, local mills will be placed into a crisis situation. Ultimately, jobs may move off-shore.

Existing businesses have contributed to our nation's economic engine for decades, and we want this tradition to continue. Therefore, we are soliciting your help. We request that a comprehensive and balanced perspective be used in development of implementing regulations. This will ensure that our packaging and paper manufacturing businesses are given a fair opportunity to prosper and thrive in the years ahead.

We understand the depth of the challenge and appreciate the opportunity to share our viewpoint and concerns with you today. We are committed to offering you any assistance that will be useful to ensure prosperity for our employees, communities, and shareholders while also recognizing the importance to the U.S. and the rest of the world in creating more sustainable sources of energy.

Thank you.

Attachment 1:

**New and Planned Biomass Facilities in Alabama:**

The following list is a summary of currently known new and planned facilities that will be using/drawing wood from Alabama's wood basket by category:

**Pellet Mills**

Selma, AL	1 million tons/year
Jackson, AL	1 million tons/year
Marianna, FL	1.2 million tons/year
Lucedale, MS	Amount not known.
Moundville, AL	Amount not known.
	<b>3.2 million tons/year +</b>

**Power Plants**

Ft. Gaines, GA	1.1 million tons/year
Franklin, GA	0.5 million tons/year
	<b>1.6 million tons/year</b>

**Boiler Fuel**

McIntosh, AL	70,000 tons/year
Hope Hull, AL	8,000 tons/year
Cullman, AL	100,000 tons/year
Hattiesburg, MS	70,000 tons/year
	<b>248,000 tons/year</b>

**Paper/MDF/OSB Mills**

Cantonment, FL	1,000,000 tons/year
Oxford, AL	400,000 tons/year
Thomasville, AL	1,300,000 tons/year
	<b>2,700,000 tons/year</b>

**Biodiesel and other fuels**

Bay Minette, AL	150,000 tons/year
	Black Belt Region 500,000 acres (Sugar cane to jet fuel. This will decrease the amount of land for forestry.)

### **New and Planned Biomass Facilities in Louisiana/Texas:**

The following list is a summary of currently known new and planned facilities that will be using/drawing wood from Louisiana's wood basket by category:

#### **Power Plants**

Lufkin, TX	500,000 tons/year
Nacogdoches, TX	1 million tons/year
	<b>1.5 million tons/year</b>

#### **Boiler Fuel**

Nacogdoches, TX	Amount not known.
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#### **Biodiesel and other fuels**

Lacassine, LA	Amount not known.
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### **New and Planned Biomass Facilities in Minnesota:**

The following list is a summary of currently known new and planned facilities that will be using/drawing wood from Minnesota's wood basket by category:

#### **Pellet Mills**

Mt. Iron, MN	100,000 tons/year
Duluth, MN	154,000 tons/year
Rice Lake, WI	36,000 tons/year
	<b>290,000 tons/year</b>

#### **Power Plants**

Hoyt Lakes, MN	275,000 tons/year
	<b>275,000 tons/year</b>

#### **Boiler Fuel**

Ft. Frances, Canada	700,000 tons/year
	<b>700,000 tons/year</b>

#### **Biodiesel and other fuels**

MN	150,000 tons/year
Little Falls, MN	Amount not known.
	<b>150,000 tons/year +</b>

## **Food, Conservation, Energy Act of 2008 Title IX Authorities Rule Making Written Amplifying to Remarks Provided by Michael R. Brower, Senior Federal Policy Director, Mosaic Federal Affairs LLC, September 4, 2008**

The following remarks are provided along with Mosaic Federal Affairs LLC's September 4, 2008, presentation for and on behalf of The Biorefinery in New York, Catalyst Renewables Corp, Renewables LLC, Tree Source Solutions LLC, Lyonsdale Biomass LLC, US Salt LLC Biomass Conversion Project, SUNY-ESF, SUNY College of Technology at Delhi, SUNY Center for Sustainable and Renewable Energy, O'Brien & Gere/SUNY Agricultural College at Morrisville Controlled Environment Energy and Agriculture Project, and Hiscock & Barclay LLP.

### **Section 9003, Biorefinery Assistance**

First, we seek to address Section 9003, Biorefinery Assistance, which provides loan guarantees to fund the development, construction, and retrofitting of commercial-scale biorefineries and grants to assist in paying the cost of the development and construction of demonstration-scale biorefineries. A November 2007, Union of Concerned Scientists report warns that certain alternative fuels produce more emissions than gasoline or diesel. "Biofuels; an Important Part of a Low-Carbon Diet" indicates that liquid coal can release 80% more global warming pollution than gasoline. Corn ethanol can be either more or less polluting than gasoline, depending on how the corn is grown and the ethanol is produced. On average, corn ethanol can reduce emissions about 20%, though there is uncertainty due to differing land use practices. The cleanest alternative, cellulosic liquid transportation fuels from woodchips or other cellulosic non-food/feed feedstock could reduce emissions by more than 85 %. The report calls for a national low-carbon fuel standard that accounts for alternative fuels' global warming emissions over their entire life cycle - "from the till to tailpipe". (UCS Press Release, 11/13/07/ [www.ucsusa.org](http://www.ucsusa.org) ). Heretofore, federal decision-makers have been keenly focused on food or feed-based alcohol fuels to the exclusion of New York and Northeastern United States woody biomass-based liquid transportation fuels. In fact, federal biorefinery assistance in New York and the Northeast has been negligible. We strongly urge the Secretary to write a rule for Section 9003, which ensures inclusive regional parity for New York and Northeastern woody biomass feedstocks.

Wood from the forest and from farmed short rotation woody biomass energy crops offers a significant renewable alternative and environmentally more benign replacement options to diminishing fossil-based energy supplies. We urge parity for loans and grants designed to aid commercialization of non-food/feed based liquid transportation fuels, bio-products and bio-polymers. Across the Northern Forest of New York, New Hampshire, Vermont and Maine our neighbors are equally embracing the challenge of thermochemically and biochemically produced liquid transportation fuels from our plentiful mixed northern hardwood trees produced in close proximity to urgent demand for liquid transportation fuels.

Projects are ready for commercial demonstration; one of these projects is the Biorefinery in New York, which is being supported by \$10,000,000 from the New York State Energy Research and Development Authority and New York State Department of Agriculture and Markets. The

Biorefinery in New York needs equitable access to federal Food, Conservation and Energy Act of 2008 Title IX funding support to achieve ample financial resources and equipment associated with a biorefinery commercial demonstration plant.

Biomass for bio-energy and bio-products including liquid transportation fuels can be drawn from a variety of feedstock sources including forests, agricultural crops, organic residue streams and dedicated woody or herbaceous crops. Research suggests development and deployment of woody biomass resources have distinct energy, economic and environmental advantages over agricultural sources:

1. Woody biomass is available year round and from multiple sources. End users are not dependent on single source material.
2. The net energy ratios for bio-energy and bio-products including liquid transportation fuels derived from woody biomass are large and positive, meaning that considerably more energy output is produced from these systems than is used in the form of fossil fuels to produce the woody biomass and generate end products.
3. Woody biomass can be sustainably managed and produced, while simultaneously providing an array of environmental and socioeconomic benefits.
4. The physical-chemical characteristics of woody biomass from hardwoods are fairly consistent even when supplied from multiple sources.
5. The forest products industry and wood-based renewable energy generation firms have developed superior technical and engineering competencies to manage the variability occurring during large, continuous woody biomass shipments.

Sustainably harvested forest woody biomass can nationally provide at least 368 million dry tons of wood per year. Nationally, the net annual incremental forest woody biomass growth on almost 500 million acres of U.S. timberland exceeds forest woody biomass removals by almost 50%. In the north-central states growth exceeds removals by 95%. This ratio is even greater in the northern forest of the northeast states, where growth exceeds removals by 125%. In New York State there are over 15.6 million acres of timberland with over 750 million tons of standing biomass. The net annual increment growth on New York timberland is more than 300%.

Forecasts indicate equitably funded biorefinery applications can increase returns on New York State and Northeastern United States forest and farm community investments; thus helping to sustain rural communities and the associated quality of life. Woody biomass production from the forest products industry and from farmed short rotation woody biomass energy crops using biotechnology applications will improve income for New York State and Northeastern United States farm and forest communities. Increased rural income from forestry and farmed short rotation woody biomass energy crops operations coupled with new and sustained jobs at businesses retained or formed and retention of energy dependent manufacturing jobs will improve the rural tax base. New woody biomass products including ethanol, acetic acid, and biodegradable plastics hold the potential of creating or sustaining approximately 20-40 jobs per biorefinery site depending on product choices and hold the promise of close location of follow-on manufacturing operations using biorefinery products. This will ensure the viability of these facilities sustaining

hundreds of jobs associated with the supply of feedstock and the operation of these regional mills.

Today, the New York State forest products industry adds more than \$7.7 billion to the state's economy each year and provides 60,000 jobs, but is still in decline. Equitable regional wood based biorefinery funding promises to create more economic vitality for the forest products industry from new value-added products and processes and enhanced existing manufacturing processes. The wood based biorefinery as a biosciences industry cluster offers to reverse the job loss and economic decline in Upstate New York's farm and forest communities. The same will be true as the concept is replicated across the Northeastern United States and the Nation.

### **Section 9004, Repowering Assistance**

Next, we will briefly address Section 9004, Repowering Assistance, which provides for **payments to be made to biorefineries in existence at time of enactment** of the Act to replace fossil fuels used to produce heat or power to operate the biorefineries with renewable biomass. We assert this section clearly favors food and feed-based ethanol plants since generally only food/feed-based ethanol plants are eligible. This is a bar to new cellulosic/hemi-cellulosic woody Biomass applications at forest products industry sites that are ideal for woody biomass power because of existing, proven wood handling systems. We also suggest that this Section may conflict with existing IRS Section 45 Production Tax Credit guidelines. Nevertheless, in this section because the incentive is designed to be exclusive, the incentive actually becomes corporate agriculture subsidy.

### **Section 9005, Bioenergy Program for Advanced Biofuels**

Section 9005 provides for payments to be made to eligible producers to support and ensure an expanding production of advanced biofuels. Advanced Biofuels must be properly defined and if corn-based ethanol is excluded, we suggest pressed oil-based bio-diesel should also be excluded.

We asked the Secretary to ensure parity for thermochemical and biochemical technologies and Advanced Hydro-Carbon and Alcohol Next Generation Liquid Transportation Fuels to help end dependency on imported and domestic fossil fuels including coal and natural gas presently being used to manufacture over-the-road diesel, aviation fuels and U.S. military alternative fuels.

At the Biorefinery in New York research sites, proprietary and licensed property has demonstrated capacity to produce high-quality, commercially adaptable Jet A-1 from woody biomass. Present demonstrated capability is 55,000 gpy and production of 5,000,000 gpy of Jet A-1 could be achieved with equitable Food, Conservation and Energy Act of 2008 Title IX support. We ask the Secretary to ensure regional parity for New York and Northeastern United States Next Generation Liquid Transportation Fuels in his rule-making. Finally, we ask the Secretary to ensure Food, Conservation and Energy Act of 2008 Title IX support helps facilities sited closest to consumer demand.



## **Section 9011, Biomass Crop Assistance Program (BCAP)**

Section 9011 provides support to the establishment and production of crops for conversion to bio-energy in project areas and to assist with collection, harvest, storage, and transportation of eligible material for use in a biomass conversion facility. New York State leads the nation in short rotation shrub willow woody biomass closed loop energy crop research, development and commercialization. We ask the Secretary to ensure regional parity for short rotation woody biomass closed loop energy crops during Section 9011 rule making. Shrub willow biomass is a proven closed loop biomass energy crop, the time for commercial deployments is today and Section 9011 offers a pathway to return millions of under-utilized or abandoned non-food farmland to productive use. Allied with cooperative growers, Catalyst Renewables planted 600-acres of shrub willow in commercial demonstration in New York in 2008. Catalyst used private dollars (50%) and federal appropriations/New York State funding assistance (50%). FY 2009 follow-on appropriation supported by four New York Congressmen/Congresswomen. Catalyst's strategic goal is 24,000 New York acres by 2012. We seek the rule-making for Section 9011 to enable transition from university research to farm-based operations to influence operational adaptation by farmers on farms. The Catalyst initiative, while the first operational program still must prove itself. Such validation requires formalized, reliable funding assistance mechanisms as the author's of the Food, Conservation and Energy Act of 2008 intended BCAP to be. We suggest, BCAP cannot end up the same bureaucratic "drill" of the Conservation Reserve and Conservation Reserve (Enhanced) Programs, which have willow harvest provisos, but bureaucratically barred deployment under CRP/CR(E)P. BCAP should be the means to assist funding for the transition of under-utilized, non-food farmland into productive, suitable woody biomass energy cropland wherever feasible.

Use of willow biomass crops, combined with other woody biomass resources such as low value wood from forest and wood manufacturing residues, to replace fossil fuels for bioproducts and bioenergy defines the way forward to energy security because wood is more abundant than agricultural commodities and residues. According to a recent USDOE/USDA report, dedicated woody and herbaceous crops will provide almost 40% of the nation's 998 million dry tons of biomass for bioproducts and bioenergy produced annually from agricultural sources. Their deployment will put over 24 million hectares of land into productive use, create thousands of new jobs in rural areas and produce an array of environmental benefits. According to USDA, there are over 600,000 acres of under-utilized farmland in New York that could

be used to produce fast-growing willow biomass crops. According to NYS Agriculture & Markets, this available land for biomass cultivation doubles to 1,200,000-acres by including New York's wet and poorly drained soils.

Biomass production of willow crops on a per acre basis is at least 10 times greater than trees in a natural forest, allowing greater amounts of biomass to be produced over a smaller area. Willow biomass crops are harvested on a three to four year rotation, in contrast to the decades between harvests in natural forests. We suggest to the Secretary that a continued goal of BCAP must be to facilitate the commercialization of willow biomass crops as part of the mix of woody biomass feedstocks for bioenergy and bioproducts.

Bottlenecks to rapid expansion of willow acreage are planting stock supply, planting equipment, and a lack of entrepreneurs with an understanding of the crop that rapidly install and manage commercial acreage support from a properly crafted and deployed BCAP can help overcome these barriers.

The production and use of willow biomass crops creates a wide array of environmental and rural development benefits while simultaneously producing a renewable feedstock for bioenergy and bioproducts.

1. Willow used for bioenergy production is CO<sub>2</sub> neutral and has a very positive net energy ratio, ranging from 1:11 to 1:26 (Fossil Fuel in Useable Renewable Energy Out).
2. Willow's perennial nature and extensive fine-root system means that these crops reduce soil erosion and non-point source pollution.
3. Willow promotes stable nutrient cycling and relative to agricultural crops has enhanced soil carbon storage in roots and soil organic matter.
4. Willow provides habitat for a wide range of birds and can enhance landscape-diversity, especially in regions where shrub land is in decline.
5. Markets for willow biomass crops include bioenergy, liquid transportation fuels, bioproducts and other niche markets.
6. Willow biomass crops provide local economic benefits by helping to diversify farm crops and creating an alternative source of income for landowners.
7. New varieties of willow bred and tested produced yield increases of greater than 30% in research station trials.
8. Since willow is grown and used in the local community, the jobs created along the entire production and conversion chain can stay in the local community.
9. Research indicates 75 direct and indirect jobs can be created for every 10,000 acres of willow biomass crops that are established.

## **Section 9012, Forest Biomass for Energy**

Section 9012 authorizes the Forest Service to conduct a competitive research and development program to use forest biomass for energy. We ask the Secretary to ensure regional parity for New York and Northeastern woody biomass projects. Integrated production of energy from forest biomass is ready for commercial demonstration in New York and the Northeast at The Biorefinery in New York. Manufacture of new transportation fuels from forest biomass is ready for commercial demonstration in New York and the Northeast.

At the Lyonsdale Biomass 20Mwe/15,000pph thermal CHP plant in New York NYSDEC cites the surrounding Lyonsdale wood-basket as, “the healthiest, best managed forestland in New York State.” Lyonsdale Biomass employs a NYS RPS-certified, sustainable Forest Management Plan. Lyonsdale locally pays over \$6,000,000 annually to about 150-forest community workers in the “woods” and \$1,600,000 to 24 workers at the plant. The Biorefinery in New York is ready for commercial demonstration of renewable electricity, thermal energy, liquid transportation fuels, commodity chemicals and polymers...all from forest biomass

## **Some Policy Concerns for Consideration**

There are current, valid concerns about conflicting definitions currently “in-law” regarding “what is biomass.”

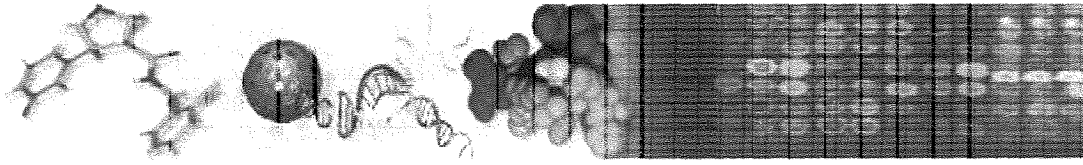
- ◆ Energy Policy Act 2005
- ◆ Farm Bill
- ◆ Energy Act of 2007
- ◆ And several others...

Strongly suggest that in no case should woody biomass from farm or forest be excluded as an integral component of the biomass definition whether from federal lands, public lands, Native American lands or private lands.

Successful applications of biomass for biopower, liquid transportation fuels and bioproducts depends on production tax credits for power, thermal energy, liquid transportation fuels manufacture and fossil replacement products. Biomass Production Tax Credits must be at par with wind, geothermal, closed loop biomass and solar Investment Tax Credits. We assert incentive fosters innovation and parity ensures optimum diversity.

Thank you for the opportunity to comment.





## **C<sup>2</sup> Biotechnologies, LLC**

*We are using biotechnology to improve the quality of life.*

September 11, 2008

Robin Robinson  
Office of the Administer, USDA  
Rural Development Programs  
Room 5803  
South Agriculture Bldg, STOP 3201  
1400 independence Avenue, SW  
Washington, DC 20250-3201

Subject: Comments USDA public meeting on Implementation Title IX 2008 Energy Act.

Dear Mrs. Robinson,

On this particular somber day, a day of reflection on national issues revolving around security, energy and economy, with presidential elections looming in the near future I write to you to voice my concerns as an entrepreneur, a scientist and family man about USDA implementing the 2008 Energy Act.

I did not have the privilege of attending the public forum on implementing Title IX, Energy Authorities of the Food, Conservation, and Energy Act of 2008 but did review a summary of events provided by Joanne M. Ivancic from Advanced Biofuels USA, a nonprofit group located in Frederick, MD. I was particularly moved by some of the comments provided by Mr. Robert Kozak, President of Atlantic Biomass Conversions, Inc. and Board Member of Advanced Biofuels USA. Many of the concerns voiced by Mr. Kozak have in one way or another directly affected our progress as a start up biotechnology company developing products for the bio-fuel markets.

C2 Biotechnologies, LLC was designed to develop innovative consumables for bio-ethanol producers, specifically enzymes used to convert biomass into a fermentable sugar cocktail. Our technology allows us to combine multiple enzymatic activities into one molecule which results in a reduction in manufacturing costs and facilitates ease of use for our intended clients. Unfortunately we have encountered several of the same hurdles to commercialization that have been voiced by Mr. Kozak.

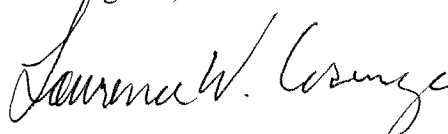
The barriers we have encountered to commercialization are related to scales of production / demonstration and competition by large companies. First, as a start up company, we have found it difficult to demonstrate or prototype our technology simply due to market scales. The costs to take material constructed and tested on a laboratory bench to a scale that can be tested in a demonstration project with even a local, small potential customer has been above the current SBIR funding levels. Other funding mechanisms, grants, loans, appropriations, investment, are difficult to procure because of

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risk associated with scale, utility of innovation, start up sustainability, projected return on investment. Secondly it appears that our funding proposals have been ranked against those from larger, established organizations who simply win because of size and market presence but generally lack innovation. Large companies have the ability and infrastructure to produce any enzyme at a substantially reduced rate compared to a small business. But, the innovation to build useful products for new markets, such as cellulosic ethanol, takes research, time and chance. Most of the infrastructure of a large company is dedicated to maintaining current markets and not necessarily poised for testing innovation. We felt this most directly after applying to a New York State program, NYSERDA (PON 1195), for funding to construct and test a fusion enzyme that combines two of the three activities required to convert cellulosic material into fermentable sugar. During a verbal debriefing we were told that our risk profile was too large compared to other established concerns. It has been these kinds of hurdles, market versus demonstration scales and large company competition that has impeded our progress to commercialization.

We feel that while the language in the USDA's energy act is intended for innovation, in reality the funds may find their way to established business concerns that address production cost using economies of scale and not necessarily innovative ideas. Because of the specific events mentioned and others that have occurred we would like to add our support for the concerns voiced by Advance Biofuels USA and Mr. Kozak. Furthermore, we would like to recommend that a member(s) from Advanced Biofuels USA assist drafting 2008 Energy Act and / or in reviewing / ranking innovative projects for potential funding.

Best Regards,



Lawrence W. Cosenza, Jr., Ph.D.  
Founder & Chief Science Manager  
C2 Biotechnologies, LLC

CC: Kirsten Gillibrand (NY-020) / Joanne M. Ivancic (Advanced Biofuels USA)

## **Implementation of Title IX, Energy Authorities of the Food, Conservation, and Energy Act of 2008**

**Comments: Robert Kozak**

**President, Atlantic Biomass Conversions, Inc.**

**Board Member, Advanced Biofuels USA**

- Overall goal should be to develop an American Advanced Biofuels industry that is sustainable both environmentally and economically.
- USDA also should realize that advanced biofuel technologies are not commercially available today (2008). There are many very good, innovative ideas, conversion systems and crops, at the lab level. These sections of the 2008 Farm Bill could go a long way to getting them to market.

### **Section 9003 Biorefinery Assistance**

*With the limited funds, this program should only be used for Advanced or 3<sup>rd</sup> generation Biofuels.*

1<sup>st</sup> generation are corn-to-ethanol and soybean biodiesel: commercial production  
2<sup>nd</sup> generation is cellulosic ethanol: Number of DOE funding projects.

Examples of 3<sup>rd</sup> generation (or True advanced Biofuels) include: advanced hemicelluloses/lignin conversion processes, either to intermediates (sugar cocktails) or final fuels, "grassoline" gasoline equivalents, bio-jetfuels, advanced biosynthetic diesel fuels, and fuels cell liquid electron carriers.

### Selection Criteria

- Don't be afraid to fail, many state programs realize that not all technologies are going to "hit home runs" Low-risk selection criteria result in non-innovative technologies.
- Co-ops and innovative feedstocks should be given high rankings, as the bill language states
- Pilot-Scale, rather than larger sized biorefineries should be funded. More ideas in the field for the limited money available. Again innovations are needed.
- Biorefinery Design: Multiple Stage, decentralized/centralized hybrid Biorefineries should be included as well as the conventional integrated biorefinery design
- Something we forget. Goal should be to reduce overall system transportation costs

## Questions in Farm Bill Wording

What is Demonstration-Scale? Pilot or Prototype

What is a Large Scale market? In transportation fuels, all markets tend to be large.

### **Section 9005 Bioenergy Program for Advanced Biofuels**

#### Selection Factors

- Again, should be limited to 3<sup>rd</sup> generation biofuels
- National Defense, jet and turbine fuels
- Getting new fuels to market
- Biofuel Intermediates as well as Finished products should be eligible, JP-8, sugar cocktails

### **Section 9011 Biomass Crop Assistance Program**

Before this program is initiated, USDA/ARS should conduct a study of available energy crops to determine eligibility. This could be done under the language in this section that outlines selection criteria

- Ecological fitness of crops to specific environments
- High per acre yields with low fertilizer inputs
- Ease of harvesting
- Availability of biomass conversion processes

This would solve the chicken-and egg issue between crops and biorefineries that is created by some of the language in this section. Letter of commitment, etc.

*"2) assist agricultural and forest land owners and operators with collection, harvest, storage, and transportation of eligible material for use in a biomass conversion facility"*

### **Section 9012 Forest Biomass for Energy**

#### Selection Criteria

- Include reactivating mothballed pulp-and-paper plants.
- Pilot-Scale, rather than larger sized biorefineries should be funded. More ideas in the field for the limited money available. Again innovations are needed.



- Biorefinery Design: Multiple Stage, decentralized/centralized hybrid Biorefineries should be included as well as the conventional integrated biorefinery design
- Something we forget. Goal should be to reduce overall system transportation costs

Under Secretary Dorr and distinguished panel members, thank you for the opportunity to provide input on the implementation of Title IX, Energy Authorities of the Food, Conservation and Energy Act of 2008. I am Denny DeVos, Corporate Finance Director for POET. POET currently has 26 ethanol facilities, in the Midwest, with combined annual production capacity of approximately 1.5 billion gallons.

### **9003 Bio-refining Assistance:**

POET believes that the Bio-refining Assistance Grant Program will potentially benefit “Project Bell” our cellulosic pilot plant that will convert corncobs and corn fiber into ethanol. Project Bell is currently under construction and will be producing cellulosic ethanol before 1-1-2009. Research conducted at “Project Bell” along with research at POET’s Bench & Lab Scale facilities will enable POET to begin construction of “Project Liberty”, a 25 million-gallon cellulosic facility, in late 2009 or early 2010.

Of equal if not greater importance is the Bio-refining Assistance Loan Guarantee Program.

POET believes that we will not be able to obtain loans to finance new or emerging technologies being adopted to produce advanced bio-fuels without a loan guarantee.

Examples of Bio-Mass conversion facilities that would be supported by the loan guarantee program are: Solid fuel boilers; cellulosic ethanol facilities; anaerobic digesters; oil extraction; and fractionation facilities.

These technologies will be adopted in both new and existing facilities. Because of this, it is essential that implementation of the guarantee program includes the ability to work with facilities that have existing debt.

The loan guarantee program will need to allow refinancing the existing debt under the new guaranteed loan or only require a first security interest in the new Bio-Mass conversion facility assets. Two potential scenarios of this are:

#### **Scenario #1**

Producer obtains a \$20 million guaranteed loan to add a solid fuel boiler, fueled by renewable biomass to an existing facility. The cost of the boiler project is \$25 million. Prior to the solid fuel boiler project, there is remaining senior debt with first lien security in all company assets of \$35 million. The cost of the original plant was \$65 million. For the guarantee program to be utilized the guaranteed loan would only be able to obtain a

first lien security position on the new solid fuel boiler assets or be of adequate size to refinance the existing debt. If the existing debt is not refinanced a second lien could be taken on the balance of the company's fixed assets that existed prior to the solid fuel boiler project.

## **Scenario #2**

Assuming the senior debt in scenario #1 is not refinanced. This same plant expands the plant capacity after the solid fuel boiler loan guarantee is in place. The cost of the expansion is \$100 million and new senior debt of \$70 million is added over and above the now remaining \$30 million of nonguaranteed senior debt. This results in a new nonguaranteed senior loan of \$100. In order to obtain financing for the expansion the guaranteed loan would need to allow the nonguaranteed loan to have the first lien in all existing and new company assets, except those related to the solid fuel boiler project. Again, the guaranteed loan could maintain a second lien on all fixed assets.

At POET, we believe there is tremendous opportunity to adopt new and emerging technologies for the development of advanced bio-fuels. Without grants and guaranteed loans, we will not be able to access adequate financing to deploy these technologies.

## **9004 Repowering Assistance**

The repowering assistance program offers the opportunity for our existing ethanol production facilities to further reduce or eliminate the use of fossil fuels in our production process.

At POET, we do not believe there is a single solution to eliminating the use of fossil fuels. A combination of systems, such as anaerobic digestion, solid fuel boilers, landfill bio-gas and wind towers might be employed at a single production facility.

Assuming a cost of \$9/mm BTU, annual natural gas costs at a 65 million gallon ethanol facility are approximately \$17,000,000. We estimate the capital investment required to significantly reduce or eliminate the use of fossil fuels to be \$1.00 - \$1.25 per gallon of production.

At present, lenders are only willing to lend approximately \$1/gallon of production capacity for a basic facility that costs in excess of \$2/ gallon to build. Therefore, there is no financing available, for repowering ethanol facilities, without guaranteed loans to support the new investment.

These technologies will be adopted in existing facilities. Because of this, it is essential that implementation of the guarantee program includes ability to work with facilities that have existing debt.

The guarantee program will need to allow refinancing the existing debt under the new guaranteed loan or only require a first security interest in the new Bio-Mass conversion facility investment. Two potential scenario's of how this might work are:

### **Scenario #1**

Producer obtains a \$20 million guaranteed loan to add a solid fuel boiler, fueled by renewable biomass to an existing facility. The cost of the boiler project is \$25 million. Prior to the solid fuel boiler project, there is remaining senior debt with first lien security in all company assets of \$35 million. The cost of the original plant was \$65 million. For the guarantee program to be utilized the guaranteed loan would only be able to obtain a first lien security position on the new solid fuel boiler assets or be of adequate size to refinance the existing debt. If the existing debt is not refinanced a second lien could be taken on the balance of the company's fixed assets that existed prior to the solid fuel boiler project.

### **Scenario #2**

Assuming the senior debt in scenario #1 is not refinanced. This same plant expands the plant capacity after the solid fuel boiler loan guarantee is in place. The cost of the expansion is \$100 million and new senior debt of \$70 million is added over and above the now remaining \$30 million of nonguaranteed senior debt. This results in a new nonguaranteed senior loan of \$100. In order to obtain financing for the expansion the guaranteed loan would need to allow the nonguaranteed loan to have the first lien in all existing and new company assets, except those related to the solid fuel boiler project. Again, the guaranteed loan could maintain a second lien on all fixed assets.

While guaranteed loans will be essential to achieve minimal repowering investment, if significant investment is to be made, the program will need to include a payment for each mm BTU replaced. POET recommends a payment of \$3/mm BTU. This payment will be needed for 3-5 years.

The repowering program has the potential to significantly reduce our use of fossil fuels. If the program were available today POET has repowering investment plans that we would implement.

### **9005 Bioenergy Program for Advanced Biofuels**

This program authorizes the Secretary to make payments to an eligible producer of advanced biofuels. An advanced biofuel is defined as fuel derived from renewable biomass other than corn kernel starch. By definition, the Secretary could enter into a contract with a producer of cellulosic ethanol or a producer of ethanol from starch as long as the starch is not from the corn kernel.

Furthermore, renewable biomass is defined as any organic matter that is available on a renewable or recurring basis. Therefore, the Secretary is also authorized under this program to make payments for the utilization of landfill and sewer gas and solid fuels such as wood chips, wood waste, corn stover, grasses, and manure as a source of energy.

POET recommends the payment be made based on gallons produced or energy unit replaced (e.g. mm BTU or kilowatt). Since the payment is made directly to the producer of the advanced biofuel it should not impact eligibility for tax credits that might apply.

It is strongly recommended that the duration of the contract with the Secretary match the length of the loan obtained to finance the capital investment required to produce the advanced biofuel. This would provide stability to the cash flow and greatly increase the availability of financing to produce advanced biofuels.

If Section 9005 Bioenergy Program for Advanced Biofuels were used in conjunction with the Section 9004 Repowering Assistance Program, it would not be necessary to make payments for energy replaced by repowering, from funds allocated to the Repowering Assistance Program.

Likewise as long as there is a separate payment made to producers of cellulosic ethanol, payments made under this program should exclude payments for the production of cellulosic ethanol.

This program for advanced biofuels is an opportunity to encourage rapid deployment of capital invested in the production of advanced biofuels. Because of this I encourage you to move quickly in the implementation of this program.

### **9011 Biomass Crop Assistance Program**

POET's focus in Section 9011 is on assistance for collection, harvest, storage and transportation of renewable biomass by a person with the right to collect or harvest eligible material. Our Project LIBERTY, a 25 million gallon facility, will require collecting cobs from a minimum of 275,000 acres and involve a minimum of 400 producers.

We will be asking these producers and many others in the future to do something they have never done before. For the producer to make the required capital investment and depart from normal harvesting practices they will require an assurance of payment and returns on investment significantly greater than investments made in long proven practices.

It is quite possible that the producer will not undertake all facets of harvesting, collection, storage and transportation of the renewable biomass. However, all payments under the program should be made directly to the producer and in turn the producer is responsible for payments of services provided by others.

The matching payment of up to \$45 per ton is only available for 2 years. Because we expect producers will increase their capital investment and commitment to collecting biomass, after gaining experience, it is essential that the producer be paid for incremental increases of tons collected. An example of how this would work is as follows:

Year	Tons Harvested	Cost Share Tons
1	50	50
2	70	70
3	70	20
4	90	20
5	90	20

Section 9011 authorizes payments for the delivery of eligible material to a biomass conversion facility. A biomass conversion facility is defined as a facility that converts renewable biomass into heat, power, bioproducts and advanced biofuels. Under this definition, biomass conversion facilities could utilize a wide variety of biomass material. It will be important to recognize this during implementation.

In the fall of 2007 POET collected cobs from 4,000 acres of corn and conducted over 100 experiments on the harvesting, collection, storage and transportation of cobs. We have committed to conducting research on an even greater number of acres from the 2008 crop. We are confident that the process we develop for the harvesting, collection, storage and transportation of biomass will be successful. However, this program is necessary as a final step in obtaining commitments from our farmer producers to partake in this new farming practice.

I thank you for the opportunity to provide input and would be happy to respond to questions.

Denny DeVos  
Director of Corporate Finance  
POET  
605-965-2338  
Denny.DeVos@POET.com



**NATIONAL ASSOCIATION OF STATE FORESTERS**  
**444 North Capitol Street, NW, Suite 540, Washington, DC 20001**

September 19, 2008

Ms. Robin Robinson  
Room 5803, South Agriculture Building  
STOP 3201  
1400 Independence Avenue, SW.  
Washington, DC 20250-3201

**2008  
Executive  
Committee**

Dear Ms. Robinson:

*President*  
Kirk Rowdabaugh  
Arizona

*Vice President*  
Leah W. MacSwords  
Kentucky

*Treasurer*  
Steven W. Koehn  
Maryland

*Northeastern  
Representative*  
Paul DeLong  
Wisconsin

*Western  
Representative*  
Bill Crapser  
Wyoming

*Southern  
Representative*  
Edgardo Gonzalez  
Puerto Rico

*Immediate  
Past President*  
E. Austin Short  
Delaware

New authorities within Title IX of the 2008 Farm Bill represent a significant opportunity to improve the health of the nation's public and private forests. The National Association of State Foresters (NASF) applauds Congress's recognition—through the new Energy Title Programs—of the critical role non-industrial private forest lands play in helping meet national goals for renewable energy and advanced biofuels. The Title IX Programs will help stimulate markets for previously unmerchantable woody-biomass and will provide families and individuals with new income sources to manage for the numerous essential public benefits provided by their forest lands.

The enclosed includes NASF's recommendations regarding the implementation of the new programs authorized under Title IX of the Act. We believe the National and State Priorities laid out in Title VIII (Sec 8001 and 8002) of the 2008 Farm Bill provide guidance on project selection processes of the Farm Bill programs.

NASF appreciates the opportunity to share comments and asks the Department to consider the enclosed recommendations related to the implementation of the Energy Title programs. Please contact NASF Executive Director Jay Farrell ([jfarrell@stateforesters.org](mailto:jfarrell@stateforesters.org) or 202-624-5976) if you have any questions about our enclosed suggestions. We look forward to continued collaboration in crafting rules and administrative guidance for the 2008 Farm Bill.

Sincerely,

Kirk Rowdabaugh, President  
National Association of State Foresters



Implementing Title IX of the 2008 Farm Bill:  
National Association of State Foresters (NASF)  
Recommendations for Implementing Energy Title Programs  
September 19, 2008

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New programs within the Energy Title of the 2008 Farm Bill hold enormous potential for improving the management of private forest lands across the country while also helping achieve national goals for renewable energy. Careful consideration is needed, however, as rules are generated to help guide the implementation of these new authorities. NASF offers the following recommendations to ensure these programs achieve their full potential in helping improve the ability of non-industrial private forest landowners in managing their forests for renewable energy, clean air and water, wildlife habitat and numerous other important public benefits.

**Biorefinery Assistance (Sec. 9003)**

Interim guidance and the Notice of Funds Availability should be issued with the urgency cited in the Manager’s statement in a manner consistent with the direction provided in Section 9003. Subsequent rulemaking should adjust interim guidance (where appropriate) to ensure that future criteria for selecting funded projects reflect the intent of the broader assistance program defined in section 9003.

The Manager’s Statement recognizes the ability to use funds under section 9003 to retrofit existing wood products facilities. NASF suggests wood products facilities interested in retrofitting existing facilities to produce biofuels—*in addition to current or new production of wood-products*—should be eligible for grants and loans guarantees under this program. In other words, regulations should not require that biofuels replace production at an existing facility in order to be eligible.

The Biorefinery Assistance Program requires the Secretary to establish a scoring system which considers whether the applicant proposes to work with producer associations or cooperatives (section 9003) when providing grants or loan guarantees. The Biomass Crop Assistance Program (section 9011) is designed to provide agricultural and forest landowners with financial assistance in establishing, producing, gathering and storing renewable biomass. NASF believes the programs compliment each other and recommends the Secretary provide funding assistance through each program which advances the intended goals of the other.

NASF recommends loan guarantees provided through Biorefinery Assistance Program cover *both* construction and post construction financing. Further, feasibility studies under this section should not be construed so as to require applicants to recreate an existing feasibility study completed by a third-party where one is already in place.

**Bioenergy Program for Advanced Biofuels (Sec. 9005)**

“It is the intent of the Managers that the Secretary support existing advanced biofuel production, as well as encourage new production. The Managers recognize that, with respect to forest biomass, the feedstock for the production of advanced biofuels is often the same feedstock used by forest products facilities, including pulp and paper mills. The Managers encourage the

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September 2008

Secretary to consider competing market outlets when establishing the payment rate for such feedstocks.” (pg. 226)

Regulations could circumnavigate the feedstock issue cited by the managers for pulp and paper mills by noting that the “renewable biomass” definition includes “wood waste or wood residue,” such as manufacturing byproducts from forestry operations. Pulp and paper facilities would therefore be eligible to use spent pulping liquors in biofuels production and still receive payments under this program without otherwise affecting their feedstock.

The Secretary may assign the basis for payment amounts under this subsection (d) according to quality and duration of the production, net nonrenewable energy content of the fuel, and “other appropriate factors.” NASF recommends the Secretary assign a premium payment for producers who have completed an assessment that documents the available sustainable supply of forest biomass on the surrounding landscape and have procurement programs that only accept woody-biomass from forests with a management plan (approved by a State Forester) or are certified through an existing forest certification program or demonstrated equivalent.

#### **Rural Energy for America Program (Sec. 9007)**

Regulations should clarify that renewable heating projects meet the definition of “renewable energy” for eligible activities under this section.

The REAP program should be linked to Sec. 9009, 9012, and 9013 programs. For example, Sec. 9009 community assessments should have an equivalency with assessments under this section to be used as a basis for joint grant or loan fund application by multiple parties. “Community wood energy plans” under Sec. 9013 could have a similar sufficiency status for assessments and project scoring under REAP.

#### **Biomass Research and Development (Sec. 9008)**

While the FR Notice did not make specific reference to this section, it does include several sections that pertain directly to NIPF and federal lands feedstock supplies [Sec. 9008(e)(3)(C)(ii) and (iii)]. The Managers intend for the program to bridge the gap between basic university research and commercialization. NASF recommends that forest biomass research under this program should focus on large-scale utilization potential. Feedstock supply elements under this Section should be linked to, or designed to support the Comprehensive Study of Biofuels commissioned in Sec. 15322.

#### **Rural Energy Self-Sufficiency Initiative (Sec. 9009)**

See Sec. 9012.

#### **Biomass Crop Assistance Program (Sec. 9011)**

NASF recommends the Secretary outline the procedures by which a “producer” (e.g., a contractor, “operator of contract acreage”) will receive harvesting and transportation incentives [Sec. 9011(d)] for “renewable biomass” material harvested from state and federal forestland. The law prohibits state and federal forestland from being enrolled as BCAP contract acreage for the purpose of receiving biomass crop payments, but 9011(d)(1)(B) was designed to make

producers eligible for the harvest and transportation incentives, including those from state and federal land.

It will also be important to specify the project sponsorship process for biomass conversion facility owners. In some cases, the facility owner could also be the “producer” in that they hold contract for forest biomass material and their contractors will be the ones to harvest and transport it. This might create complications with establishing the 1:1 harvest/transport payment amounts.

The BCAP should provide assistance to new forest landowners interested in establishing biomass supplies on former agricultural lands. In addition, the BCAP should provide assistance to private forest landowners who manage their existing forests for increased opportunities to provide biomass for renewable fuel and energy production. This could include byproducts from thinning, site preparation, fuel reduction, forest health treatments and other forest management activities. The Secretary should consider differing market conditions for forests (as compared to traditional agricultural lands) when allocating annual rental payments.

### **Forest Biomass for Energy (Sec. 9012)**

NASF recommends that for the project selection and grants proposed under the Rural Energy Self Sufficiency Initiative (Section 9009) and Forest Biomass for Energy (Section 9012) that emphasis or priority be placed on projects that:

- Contain numerous contiguous forestland ownerships that help promote landscape level management objectives;
- Contain provisions that achieve long-term or permanent forest cover;
- In addition to biomass utilization, contain multiple resource management objectives directed at conservation of forest resources such as Threatened and Endangered Species habitat;
- Achieve objectives of Community Wildfire Protection Plans and other provisions of the National Fire Plan directed at hazardous fuels reduction and mitigation;
- Include specific measures to enhance forest health including control of insects, disease, and invasive plants;
- Expedite the removal and utilization of storm damage and debris;
- Augment or generate new markets for forest-based products including woody-biomass utilization for district heating or combined heat and power.
- Promote achievement of other federal mandates and programs directed at utilization of renewable resources for energy.

Funding allocations made through Section 9012 on forest lands should be consistent with state-wide assessments and strategies defined in Section 8002 or, in the absence of Assessments and Strategies, priorities identified by the State Forester.

### **Community Wood Energy Program (Sec. 9013)**

The Secretary should require Community Wood Energy Plans to demonstrate that the surrounding forest resource can supply woody biomass on a sustainable basis before awarding any competitive grants to acquire or upgrade community wood-energy systems under this program. NASF recommends the Secretary require plans that document the available sustainable supply of forest biomass on the surrounding landscape and have procurement programs that only

*September 2008*

accept woody-biomass from forests with a management plan (approved by a State Forester) or are certified through an existing forest certification program or demonstrated equivalent.

### **Overall Comments**

Except where the Conference Report or Statement of the Managers specifies differently, regulations should cite the definition of “renewable biomass” and “renewable energy” in Sec. 9001 to describe the feedstock and project eligibility for receipt of assistance under all Title IX programs.

NASF applauds the 2008 Farm Bill’s recognition of biomass from forests within the broad definition of “renewable biomass” in the Energy Title. The inclusion of woody-biomass feedstocks holds enormous potential to support proper management of our nation’s public and private forests. Unfortunately, the definition in the 2008 Farm Bill does not align with that found in the 2007 Energy Independence and Security Act (EISA). The EISA limits the role of federal and private forests in contributing towards national renewable fuels goals and prevents new markets and income opportunities for landowners from developing. Uncertainty and conflict will prevail in the marketplace until the renewable biomass definition in EISA is broadened to reflect that found in the 2008 Farm Bill.

Dear Robin Robinson:

New Planet Energy, LLC (“NPE”), a bioresource development company formed in 2007 to commercialize new technologies that utilize cellulosic feedstocks, waste materials and other sustainable resources in the production of renewable energy and biobased products, is pleased to have the opportunity to comment on Section 9003 of the Energy Title of the 2008 Farm Bill.

We greatly appreciate USDA's efforts in expediting implementation of the Title IX provisions of the Farm Bill.

New Planet Energy would like to offer the following comment:

We would urge USDA to be all-inclusive in its consideration of the types of feedstocks that can be used by a biorefinery to produce renewable fuels, particularly since:

1. The term “eligible technology” is defined as “(A) a technology that is being adopted in a viable commercial-scale operation of a biorefinery that produces an advanced biofuel,” and
2. The third criteria under the scoring systems set forth under Section 9003 states that the Secretary shall consider “(iii) whether the applicant is proposing to use a feedstock not previously used in the production of advanced biofuels.”

There is disagreement -- and, hence, confusion -- among the various definitions in federal law that apply to the feedstocks that can be used to make ethanol and other renewable fuels. It is clear that cellulosic ethanol is considered to be ethanol produced from "any lignocellulosic or hemicellulosic matter." However, it is not clear which feedstocks are included under the various definitions.

For example, Section 1501 of the Energy Policy Act of 2005, which established the Renewable Fuels Standard, includes definitions under subsection (a)(2) for both "cellulosic biomass ethanol" and "waste-derived ethanol." The definition for cellulosic biomass ethanol states that "The term `cellulosic biomass ethanol' means ethanol derived from any lignocellulosic or hemicellulosic matter that is available on a renewable or recurring basis, including-- ... (viii) municipal solid waste."

In the next subparagraph, the definition for waste-derived ethanol states that "The term `waste derived ethanol' means ethanol derived from-- `(i) animal wastes, including poultry fats and poultry wastes, and other waste materials; or `(ii) municipal solid waste."

The definition for "renewable fuel" also states that "The term `renewable fuel' includes-- `(I) cellulosic biomass ethanol and `waste derived ethanol';"

There is no reference, however, to either municipal solid waste nor waste-derived ethanol

in the definitions in Section 201 of the Energy Independence Security Act of 2007 that extends and expands the Renewable Fuel Standard. The list of inclusions under the definition for "advanced biofuel," in Section 201(A)(ii) does not include a mention of municipal solid waste, but it does not specifically exclude it either, since the subparagraph states that "The types of fuels eligible for consideration as `advanced biofuel' *may include* [emphasis added] any of the following: ..."

Similarly, the list of inclusions under the definition for "advanced biofuel" in Section 9001(3)(B) of the Farm Bill does not include a mention of municipal solid waste, but it does not specifically exclude it either, since the subparagraph states that "the term `advanced biofuel' *includes--* ..." [again, emphasis added].

On the other hand, some definitions in federal law do specifically exclude solid waste and wood that is pressure-treated, chemically-treated, or painted, such as the definition for "biomass" in the Energy Policy Act of 2005 under Section 932(a)(1)(C)(ii) that states: "The term `biomass' means-- ... (C) any waste material that can be converted to energy, is segregated from other waste materials, and is derived from-- ... (ii) wood waste materials, including waste pallets, crates, dunnage, manufacturing and construction wood wastes (other than pressure-treated, chemically-treated, or painted wood wastes), and landscape or right-of-way tree trimmings, but not including municipal solid waste, gas derived from the biodegradation of municipal solid waste, or paper that is commonly recycled."

New Planet Energy will be utilizing the INEOS Bioethanol Process (formerly known as the Bioengineering Resource, Inc. or BRI process), which is a gasification-fermentation technology capable of producing ethanol from any carbonaceous material, and from any mix of feedstocks, including special-grown crops, green vegetative wastes, agricultural residues, food wastes, municipal solid waste, biogas, animal manure, unrecyclable paper, seaweed and algae, carpeting, asphalt shingles, discarded tires, auto shredder residue, plastics and other materials.

We are locating our first commercial demonstration plant in Vero Beach, Florida adjacent to the Indian River County landfill specifically so we can utilize municipal solid waste in our process. Data on the types of materials that make up the municipal solid waste stream in Florida indicate that almost 60% of the waste stream is comprised of organic materials -- including yard wastes (14.0%), lumber from Construction and Demolition (C&D) debris (9.0%), corrugated paper (8.5%), other paper (8.6%), newspapers (5.2%), office paper (3.5%), food wastes (5.4%) and textiles (2.5%).

In addition to municipal solid waste, we plan to use citrus trees, citrus waste, vegetative waste, seaweed, animal manure, and special-grown crops as part of our feedstock stream.

We hope that the pioneering work that was so skillfully completed by Senator Grassly in defining feedstocks in the Energy Policy Act of 2005 will be reflected through the programs of USDA, and that USDA will be all-inclusive rather than exclusive in considering the range of feedstocks that can be used to produce renewable liquid transportation fuels.

We also hope that USDA will recognize the advantages offered by the INEOS Bioethanol process and other gasification processes, such as those being developed by Coskata and Range Fuels, due to their ability to utilize such a broad range of feedstocks, which will allow projects employing these processes to score higher on the third criteria in the scoring system under Section 9003.

Our further hope is that ethanol derived from all of these feedstock sources will qualify for coverage under the Section 9003 grants and loan guarantees, as well as for all of the Federal tax incentives and programs that will assist developers in bringing these critically important sources liquid fuel to optimum production at the earliest possible time.

Should you have any questions about these comments please do not hesitate to contact me.

We appreciate your consideration of these comments. Thank you.

Craig Evans  
ON BEHALF OF  
NEW PLANET ENERGY, LLC & NPE Florida, LLC  
Email - [craig@privatelands.org](mailto:craig@privatelands.org)  
Cell - 561-302-5782

September 18, 2008

Mr. Paul Harte  
Farm Service Agency  
United States Department of Agriculture  
Washington, DC

Dear Mr. Harte,

We are writing to provide input into the rule making process for title 9 for the 2008 farm bill. The following represents the initial set of comments and concerns as you began the rule making process.

**9003**

1. Broad definitions should be used for a bio-refinery and advanced bio-fuels.
2. Bio-refinery—a facility that uses biomass to create power, fuels, and value added chemicals
3. Advance biofuels—a fuel derived from biomass fiber to heat, provide transportation or create electricity.
4. Co-product—a by-product from the conversion of bio-fuel such as, ash, bio-sledge, bio-mash.
5. By-product—any product left over from the conversion of biomass that has little or no economic value.
6. Established market—A market that exist for use of biomass and the energy derived from the conversion process.
7. Potential market—a local market that can be developed for biomass products, that has strong state and federal initiatives
8. Local ownership—90% of the shareholders of the legal entity live within 100 miles of the processing biorefinery



9. Area—50 mile radius of the biorefinery
10. Demonstration Projects—a biomass project that develops the use of biofuels for transportation, electricity, or heat.
11. Viable commercial scale—A biomass project that conducts business day to day, lessening our dependence on fossil fuels, and develops a tax base.
12. Financial and performance reporting—Monthly profit and loss, balance sheets, board minutes, quarterly tours on site.
13. Eligibility—should only be allowed for United States Corporation/non-profits who produces a 100% corporate tax base. The entity should be owned 100% by United States Citizens.
14. USDA Guarantee should be open to regulated and non-regulated financial institutions.
15. Feasibility study—Equity ownership, environmental attributes of the project, job creation.
16. Qualified Preparer—a minimum of Bachelor of Science in Agriculture/Engineering with 2 years experience in biomass fuels production.
17. Turn around time-90 days ARA (after receipt of applicant)
18. Review—9 member panel with no conflict of existing bio-refinery participation all United States citizens—no federal employees.
19. Level of qualification—reducing CO2 and net energy values. Associated cost should be eligible (except advertising, R &D). Specific statutory criteria should not carry more weight and the agency should consider all factors—jobs, economic impact, time line.

20. Impact anticipation should be identified on benchmarks developed by applicant.  
Should be independently verified and reported yearly, by a highly trained environmental engineer/agricultural engineer.
21. Low-value feedstocks should be given the same consideration as high-value feedstock.
22. Suggestions on loan terms—20 years tied to short term treasuries, Max cap 3%.



September 18, 2008

Ms. Robin Robinson  
Room 5803  
South Agriculture Building  
STOP 3201  
1400 Independence Avenue, SW.  
Washington, DC 20250-3201.

Dear Ms. Robinson,

Thank you and your USDA colleagues for inviting a submission regarding our interests in various aspects of Title IX of the 2008 Farm Bill. Our comments are as follows:

#### Section 9003 – Biorefinery Assistance Program

- To match the decision making process of biorefinery investors, access to the loan guarantee program should be either available at all times or if a formal call for proposals with a closing date be necessary, this should occur at least on a quarterly basis.
- Obtaining a loan guarantee is but one important element of project development that biorefinery investors must secure before construction can commence. Thus delays, particularly given the newness of the industry can be expected. Therefore, access to this facility should not be terminated as long as the investors can demonstrate that the biorefinery investment remains viable and that significant efforts are underway to bring the project to fruition.
- While it is clearly specified in the Bill, the 10% portion of the loan not covered by the guarantee is problematic inasmuch as the lending community has limited ability to assign risk to ventures employing new technologies. Given that this portion of the venture could be as high as \$25 million and therefore significant, lenders could be prone to place a large premium on the entire loan and perhaps thus challenging the viability of the project.
- One option that rule making might address would be to allow the 10% of the loan that the guarantee did not cover to be from a less than arm's length lender. This would provide the biorefinery investors with the opportunity to provide a loan to the venture from internal finances in lieu of equity.

#### Section 9011 – Biomass Crop Assistance Program

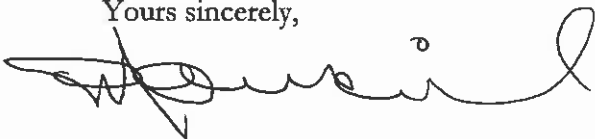
- This is an excellent program to support a mature project where the biorefinery investors are committed to the project and growers in the community have experience in growing dedicated perennial biomass crops.
- Given the risks involved it would be most helpful if the financial support of 75% would include opportunity costs to growers.

- However, this program does little to encourage growers that are new to the industry to bring themselves to the stage where they are comfortable in entering into a long term contract with a biorefinery. Indeed, biorefiners will be reluctant to contract with farmers who have no demonstrated experience in dedicated biomass production.
- The problem is further exacerbated by the fact that this is a new form of agriculture involving perennial plants such as switchgrass or miscanthus that are unknown to many growers and challenging to get established.
- There is also the need for long term contracts (perhaps 10 years) to protect the growers who are now into plantation agriculture with a two to three year establishment period. This is a new concept for those farmers accustomed to annual row crops.
- The 16 billion gallon RFS for cellulosic ethanol will require 200 million tons of biomass assuming 80 gallons of product per ton. For illustrative purposes this will require 200 thousand growers each supplying 1000 tons on average. This is an incredible opportunity and challenge for US agriculture and will involve more growers than are currently engaged in wheat production (166 thousand).
- Unfortunately it does little to bring growers (and biorefinery investors) to the stage where they will have the confidence to enter into substantial long term contracts to supply biomass.

Sections 9005 and 9008

- One concept is to encourage small scale (say five acre) plots for growers to become familiar with one or more perennial biomass crops.
- As an incentive all costs, real and opportunity, would be covered for perhaps five years.
- The product of the exercise would be grower knowledge but the biomass could serve as wildlife habitat, bedding, low quality feed or mulch for road side plantings.
- No formal biorefinery involvement would be required but applications where several farmers in a community applied as a group would be encouraged.
- Within the rule making parameters of sections 9005 or 9008 perhaps this concept could be introduced even on a relatively modest scale with the objective that, if successful, it could become a significant program in the next Farm Bill.

Yours sincerely,



Maurice Hladik  
Marketing Director  
Iogen Corporation

cc: Anne Steckel – US Farm Bureau  
Mark Gaede – National Association of Wheat Growers  
Samantha Slater – Renewable Fuels Association  
Anne Simmons – Majority Senior Professional Staff to Chairman Peterson  
Eldon Boes – Majority Congressional Fellow (Staff) to Chairman Harkin  
Adam Guzzo – Farm Service Agency - USDA



## AF&PA Statement

USDA Rural Business Cooperative Service  
Public Meeting on Implementation of  
Title IX, Energy Authorities of the  
Food, Conservation, and Energy Act of 2008  
September 4, 2008

The American Forest & Paper Association appreciates the opportunity to provide input on the Energy Authorities of the 2008 Farm Bill. AF&PA is the national trade association of the forest, pulp, paper, paperboard, and wood products industry. We are businesses producing essential products for people from renewable & recyclable resources that sustain the environment. Our industry accounts for approximately 6 percent of the total U.S. manufacturing output, employs more than a million people, and ranks among the top 10 manufacturing employers in 42 states with an estimated payroll exceeding \$50 billion.

We support policy efforts to increase our nation's energy security. Our member companies are leading the effort to achieve this objective by combining advanced technology and innovative manufacturing practices with responsible stewardship of our natural resources. The industry is a leader in the generation and use of renewable energy from biomass residue in our mills. Sixty-four percent of the energy used at AF&PA member pulp and paper mills, and 74 percent of the energy from our wood products facilities, is generated from carbon-neutral biomass. Forest product industry facilities account for 82 percent of the total biomass energy generated by all industries collectively. In other words, we are the largest producers of renewable biomass energy in the country.

Our renewable energy use and production is accomplished while adhering to disciplined market-based standards of accountability that ensure the wood fiber we use is grown and harvested in a sustainable manner. Since 1995, all AF&PA members must subscribe to the principles of the Sustainable Forestry Initiative® (SFI), which sets rigorous forest management standards that are reviewed by external partners from conservation groups and research organizations. With over 226 program participants and 156 million acres of certified well managed forests, the SFI® program ensures that America's forest and paper companies are committed to sustainable management. Our historic commitment to renewable energy and sustainable forest management demonstrates that a balance between the two is both possible and necessary.

It is clear from both the text of the 2008 Farm Bill and the Joint Statement of the Managers that the new bioenergy programs are intended to strike a similar balance

between the needs of existing biomass users and the need to develop additional sources of bioenergy. We strongly support this goal. We encourage USDA's Rural Business Service to make every effort to ensure that these programs are implemented to achieve this goal, and to ensure that existing users of biomass and producers of biomass energy have the opportunity to participate in these important new programs.

In particular, we urge USDA to look closely at the language that authorizes the Biorefinery Assistance Program (Sec. 9003), Bioenergy Program for Advanced Biofuels (Sec. 9005) and the Biomass Crop Assistance Program (Sec. 9011), as discussed below.

**Biorefinery Assistance** (Sec. 9003): This section provides for grants and loan guarantees to new and retro-fitted "commercial scale biorefineries." Both the grants and loan guarantees have a number of criteria that the Secretary must take into consideration. For grants, these include whether the project "will have a positive impact on resource conservation, public health, and the environment." For the loan guarantees, the Secretary is required to evaluate 10 factors, including:

*"whether the applicant can establish that if adopted, the biofuels production technology proposed in the application will not have any significant negative impacts on existing manufacturing plants or other facilities that use similar feedstocks." (p. 431)*

USDA should carefully evaluate any proposals received under this provision to ensure that they will not severely harm the long-term agricultural and silvicultural capability of a state or region of the country.

There is wide-spread concern about unintended consequences from biofuels production. Carefully reviewing proposals to ensure that they do not threaten the ability of natural resources in the state or region to satisfy production levels, while meeting demand from existing biomass feedstock users that rely on the same resource to produce food and manufacture products, would help address that concern.

Ensuring that this review is meaningful and rigorous will help maintain a working balance between the resource needs of existing biomass users and the emerging resource needs of the cellulosic biofuels industry. This also would help preserve the health, viability, and productivity of our agricultural and forest lands throughout the country, as well as economies in rural areas.

The joint statement of the managers specifically states that "existing facilities including wood products facilities" should be eligible for this program (p. 216 of the Joint Statement of the Managers).

**Bioenergy Program for Advanced Biofuels** (Sec. 9005): This program provides \$300 million over 4 years for payments to growers of biomass feedstock, based on a number

of factors including the net renewable energy content of biofuels produced from those feedstocks. The managers' statement includes the following:

*“The Managers recognize that, with respect to forest biomass, the feedstock for the production of advanced biofuels is often the same feedstock used by forest products facilities, including pulp and paper mills. The Managers encourage the Secretary to consider competing market outlets when establishing the payment rate for such feedstocks.”* (p. 227 of the Joint Statement of Managers)

We urge USDA to take this caveat seriously and evaluate the impact of this and other bioenergy programs on other users of biomass feedstocks, particularly woody biomass. The narrow definition of renewable biomass established by the Energy Independence and Security Act (EISA) of 2007 heightens our concerns. It restricts eligibility based on forest types and successional stage and disqualifies most fiber from public ownerships, which has the potential to focus all wood bioenergy procurement on existing plantation forests, a critical part of the fiber supply for our industry.

**Biomass Crop Assistance** (Sec. 9011): This section provides for up to 75% of the costs of establishing biomass energy crops, and up to \$45/ton for harvest, storage, and transportation to a “biomass conversion facility” (pp. 446 – 450). As noted above, existing paper and wood products facilities are substantial producers of renewable energy from wood biomass and by-products of the pulp and papermaking processes. We urge USDA to make deliveries of wood biomass to existing paper and wood products facilities eligible for payments under subsection (d). We believe it was the intent of this subsection to support wood use at existing facilities, not simply new wood bioenergy facilities. This interpretation provides greater incentives for wood energy use in concert with the existing wood and paper products industry, which will lead to a net gain in new renewable energy production.

**Conclusion:**

Thank you again for the opportunity to provide input on these important programs. We know that USDA has heard a great deal about the need to balance food needs with new bioenergy production. We believe that the model of sustainable management pioneered by America's forest products industry can be used to guide implementation of the bioenergy provisions to avoid unnecessary conflicts and support development of new bioenergy sources in a rational manner.

Department of Agriculture

Rural Business –Cooperative Services

Comments on Implementation of Title IX Energy Authorities of the Food, Conservation and Energy Act of 2008

By: David Kolsrud, Farmer, Business Developer specialized in locally owned value added projects  
DAK Renewable Energy  
304 Splitrock Blvd, Suite 205  
Brandon, SD 57005

**General Comment:**

Working with local groups for the last 14 years I found that it takes 4 key points to a successful project.

1. Vision-Include all at the beginning
2. Cooperation
3. Commitment-Best with cash & feed stock
4. Common Sense-Don't build in an over built industry

**Comments –Sec 9003:**

Loan guarantees should not exceed 80% of the loan; good projects will get financed at this level or less.

**Comments- Sec 9004:**

Maybe this section is limited to biomass, but I think it should include wind. Why? Wind projects are now currently aimed at supplying power to the grid. I think biorefiners could install gas/electric boilers which could be connected directly to the wind turbines (by passing the grid). Run off gas when the wind is low and electric when towers are producing.

**Comments- Sec 9005:**

Preference should be given to projects that are locally owned.



## **Implementation of Title IX, Energy Authorities of the Food, Conservation, and Energy Act of 2008**

**Comments: Robert Kozak**

**President, Atlantic Biomass Conversions, Inc.**

**Board Member, Advanced Biofuels USA**

507 N. Bentz St.

Frederick, MD 21701

[Atlantibiomass@aol.com](mailto:Atlantibiomass@aol.com)

### **Title IX Implementation: Overall Goals**

First and foremost I urge whichever Administration takes office in January to honor the intent of Title IX legislation, to assure that the mandatory funding levels defined in Title IX are not held up in Congress, and any additional funds that require appropriation (Section 9012) are quickly provided.

The overall goal of Title IX should be to develop an American Advanced Biofuels industry that is sustainable both environmentally and economically. This is, I believe, the intent of the legislation.

To that end, biorefinery and biomass crop assistance programs should both be focused exclusively on only advanced biofuel projects and should not be used to support earlier generations of biofuel production. Furthermore, project selection criteria should focus on sustainability over immediate availability of technology. USDA should realize that most, if not all, sustainable advanced biofuel technologies are not commercially available today (2008). There are many very good, innovative technologies, conversion systems, and crops, at the lab level. Properly implemented Title IX programs, especially in these times of virtually non-existent early-stage credit, would go a long way to getting these technologies to market and would provide the start to an American Advanced Biofuels industry that could provide both long-term energy security and long-term rural economic growth.

### **Section 9003 Biorefinery Assistance**

With the limited funds available, this program should only be used for Advanced or 3<sup>rd</sup> generation biofuels which is the legislative intent of this section

By way of definition:

1<sup>st</sup> generation biofuels are corn-to-ethanol and soybean biodiesel. Both of these are in wide-spread commercial production.

2<sup>nd</sup> generation biofuel is cellulosic ethanol. DOE has provided funding for a number of commercial-scale demonstration plants. In addition, General Motors has provided funding for two cellulosic ethanol companies, Coskata and Mascoma.

3<sup>rd</sup> generation (or True Advanced Biofuel) technologies include: advanced hemicelluloses/lignin conversion processes, either to intermediates (sugar cocktails) or final fuels, and aqueous reforming “green gasoline” processes. 3<sup>rd</sup> generation biofuels include; bio-jetfuels, advanced biosynthetic diesel fuels, biogasoline, and fuel cell liquid electron carriers.

### Selection Criteria

Criteria used to select candidate projects should be focused on encouraging innovation within the limited funding provided. They should include the following.

- Don't be afraid that some funded projects may fail. The purpose of this section is to find cutting-edge solutions. Many state technology programs realize that not all technologies are going to “hit home runs” and accept that risk. USDA should follow this philosophy. Remember that low-risk selection criteria result in non-innovative technologies.
- Co-ops and innovative feedstocks should be given high rankings, as the bill language states.
- Pilot-Scale Plants rather than larger sized biorefineries should be funded. \$340 million is not much funding. With smaller scale pilot plants, more ideas can reach the commercial stage with the limited money available. Again, innovations, not overall production levels, are needed at this stage of Advanced Biofuel development.
- Multiple stage, decentralized/centralized hybrid biorefineries as well as other concepts should be included as well as the conventional integrated biorefinery design. At this stage of development, selecting only one type of biorefinery design would close the door on needed innovation.
- Something we often forget in biofuel discussions is that the cost of transporting biomass and biofuel is usually a primary profit/loss decision point in crop selection and biorefinery design. The goal of Section 9003 should therefore be to find innovative solutions that can reduce overall system transportation costs

while also maximizing biorefinery efficiency and producing maximum amounts of advanced biofuels.

### Questions in Farm Bill Wording of Section 2003

What is a Demonstration-Scale project? Where does that fit in the engineering continuum of Pilot/Prototype/Commercial?

What is a Large Scale market? In transportation fuels, all markets tend to be large.

### **Section 9005 Bioenergy Program for Advanced Biofuels**

#### Selection Criteria

- As in Section 9003, funding should be limited to 3<sup>rd</sup> generation biofuels.
- Production of National Defense fuels, i.e., jet and turbine fuels, should be considered as selection criteria.
- Production of biofuels with equivalent energy to existing gasoline, diesel, or jetfuel should be given high priority.
- Biofuel intermediates as well as finished products should be eligible for Section 9005 funding. These would include “sugar cocktails” that are used to produce biogasoline or bio-jetfuel, or oil intermediates for advanced biosynthetic diesel.

### **Section 9011 Biomass Crop Assistance Program**

In keeping with the overall goal of developing an environmentally as well as economically sustainable Advanced Biofuel industry, Section 9011 should provide funding for only sustainable energy or dual use crops. Therefore, before this program is initiated, USDA/ARS should conduct a study of available and near-term future crops to determine eligibility. While this may slightly delay the implementation of this section, it is crucially important that high nutrient input or ecologically unfit crops are not included for funding. This study could be done under the language in this section that outlines selection criteria. Specific crop criteria to be developed should include:

- Ecological fitness of crops to specific environments,
- Regional/ecological criteria,
- High per acre yields with low fertilizer inputs,
- Ease of harvesting,
- Availability of seed crop, and

- Availability of biomass conversion processes. *Section 9011 language: "2) assist agricultural and forest land owners and operators with collection, harvest, storage, and transportation of eligible material for use in a biomass conversion facility"*

Developing these criteria within the ARS system would solve the chicken-and egg issue between crops and biorefineries that is created by some of the language in this section such as letters of commitment, etc. More important, such a study would produce objective, science-based criteria for crop-selection which would help assure the long-term health of rural biofuel economies.

## **Section 9012 Forest Biomass for Energy**

### Selection Criteria

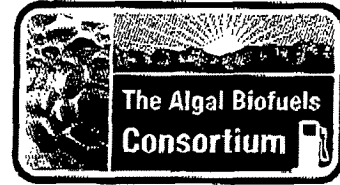
Many of the selection criteria recommended for Section 9003 apply for Section 9012 as well. These include:

- Don't be afraid that some funded projects may fail.
- Funding should be limited to 3<sup>rd</sup> generation biofuels.
- Pilot-Scale Plants rather than larger sized biorefineries should be funded.
- Innovative biorefinery concepts should be accepted.
- Innovative solutions that reduce overall system transportation costs while also maximizing biorefinery efficiency and producing maximum amounts of advanced biofuels should be a primary selection criteria.

In addition, program emphasis should be given to reactivating mothballed pulp-and-paper plants. In every region of the country, there are pulp-and paper plants closed because of the move to importing most of our paper from China and other countries. These plants present a significant opportunity for creating a forest based advanced biofuels industry at relatively low cost. Not only are they located near underutilized forest resources, they already have the infrastructure needed to build a biofuels biorefinery and in most cases these plants have been updated to meet EPA air and water regulations. Furthermore, they are located in rural communities needing economic revitalization because of their closure.

Focusing Section 9012 prototype projects in these facilities could not only develop a forest based advanced biofuels industry very quickly and at lower than expected costs, but it would also provide a way to provide long-term economic growth for many rural

communities that are now suffering through high unemployment and the outward migration of much of their younger people.



VIA FAX & EMAIL

September 19, 2008

Ms. Robin Robinson, Confidential Assistant  
Office of the Administrator  
USDA Rural Development, Business, and Cooperative Programs, Room 5803  
South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201  
(202) 690 - 4730 Fax (202) 690 - 4737  
email [robin-robinson@wdc.usda.gov](mailto:robin-robinson@wdc.usda.gov)

Subject: Public comment in response to public meeting held on September 4, 2008 entitled "Expanding Rural Renewable Energy Opportunities-Inviting a dialogue with the public on the new authorities of the Food, Conservation and Energy Act of 2008 (Pub. L. 110-234("the Act")."

Dear Ms. Robinson:

The Algal Biofuels Consortium (ABC) is submitting the following comments applicable to sections 9003, 9005, 9007 and 9008 ("the Sections"). Algal-derived biofuels offer a unique opportunity to meet certain needs addressed in the Sections of the Act.

1. It is critical to start these funding programs as soon as possible in order to accelerate the implementation of alternative solutions.
2. Algal-derived biofuels should not be restricted to specific algae strains or species, and a broad definition of algae including, but not limited to, microalgae, macroalgae and seaweed, is recommended.
3. We strongly encourage all discretionary funding to be utilized
4. Given the magnitude of the opportunity, we encourage dramatically increasing budgets.

The ABC's membership, comprised of universities, laboratories and private industry, offers technical assistance to USDA if needed in the development of these programs. Thank you for your consideration.

Sincerely,

  
Alina Kulikowski-Tan

Member and Acting Director of Private Public Partnerships  
Algal Biofuels Consortium

FLOWER POWER USA  
902 4<sup>th</sup> ST SW STE B  
Auburn, WA., 90001

**Transcript of oral presentation and written comments to the USDA  
Rural Development Public Meeting Title IX, Energy Authorities of the  
Food, Conservation and Energy Act**

September 4<sup>th</sup>, 2008,  
USDA Jefferson Auditorium  
South Building, USDA,  
1400 Independence Ave. SW., Washington DC

My name is Ion Manea and I am with FLOWER POWER USA / HERITAGE FARM  
COOPERATIVE of Auburn, Washington.

Thank you for the opportunity to make this presentation and provide comments as to:

1. **“ADVANCED BIOFUEL”** and **“BIOREFINERY”** terms **applicable to SEC. 9003, SEC. 9004** and **SEC. 9005.**
2. **SEC. 9003 (d) (C)** and **SEC. 9003 (e) (C) GRANTS AND LOAN GUARANTEES SCORING SYSTEM**

**COMMENTS TO:**

**“ADVANCED FUEL” APPLIED TO SEC. 9003 (B) (2) (A) AND (B) AND “ADVANCED BIOFUELS” APPLIED TO SEC. 9005**

**“Eligible technology”** as defined in (SEC. 9003 (2)) includes **“advanced biofuel”**, and **“biorefinery”**.

**“Advanced biofuel”** definition in (SEC. 9001). (3) specifically includes diesel-equivalent fuel from **renewable biomass**, including **vegetable oil** and animal fat.

**‘Biorefinery’** as defined in (SEC. 9001, (7)) means a facility that converts renewable biomass into **‘biofuels’** and **“biobased products”**; and may produce electricity.

**‘Biofuel’** as defined in (SEC. 9001 (5)) means a fuel derived from **renewable biomass.**

**‘Renewable biomass’** as defined in (SEC. 9001 (12), (B)) includes, any organic matter that is available on a renewable or recurring basis including renewable plant material including... feed grains, other agricultural commodities, other plants and trees, and algae.

**It is well established that:**

- As sun energy storage in plants and algae, **vegetable oil** is a valuable biofuel due to its high energy content, while extraction is clean with low energy requirements through non chemical technologies.
- Plant and algae material are **renewable biomass.**
- **Vegetable oil is a product of plant and algae and could be derived from their oil deposits** and not from starch including corn starch.

- **Vegetable oil is derived from plant oil deposits** and not derived from plant starch including corn kernel starch.
- **Vegetable oil is a fuel** that can be combusted with oxygen to generate energy closed to that generated by an equal volume of fossil diesel fuel.

It follows that according to the above and to SEC. 9001. (3) (iv), SEC. 9001 (12), (B) (I), (II), (III) and (IV), SEC. 9001 (5) SEC. 9001(3) (A):

**Vegetable oil, as a fuel derived from renewable biomass is a biofuel, and vegetable oil, as a fuel derived from renewable biomass but not from corn kernel starch is an advanced biofuel.**

Vegetable oil use as feedstock is the sole reason some chemically derived diesel-equivalent fuels can claim biofuel and advanced biofuel status.

Although emerging technologies for direct usage of natural vegetable oil as diesel or heating fuel equivalent are emerging and its potential for jet fuel formulations and fuel cell hydrogen feedstock has been documented, in America, fuel grade, quality assured vegetable oil industry is in its infancy.

In accordance to SEC. 9001 (5), SEC. 9001 (3) (B) (IV), and SEC. 9001 (12) (B) (i) (I),(II),(III), (VI) and in order to avoid deductive determination and as applicable in SEC.9003 (b) (2) (A) and (B) we propose the following interpretations:

**The term “biofuel” includes all fuels (solid, liquid or gaseous) derived from renewable biomass as defined in and including vegetable oil from plants and algae.**

**Subject to Sec. 9001, subparagraph (A), the term `advanced biofuel' includes natural vegetable oil that can be used directly or indirectly as fuel, fuel additive or feedstock for the production of energy regardless of energy generation path (diesel or jet engine, fuel cell etc.)**

#### **“BIOREFINERY” TERM AS APPLIED TO SEC. 9003 (B) (2) (A) AND (B) AND SEC. 9004 AND SEC. 9005**

**‘Biorefinery’** as defined in (SEC. 9001, (7), (A), (B)) means a facility that converts renewable biomass into **‘biofuels’ and “biobased products”**; and may produce electricity.

**‘Biobased product’** as defined in (SEC. 9001, (4), (A), (B)) means a product determined by the Secretary to be a **commercial or industrial product (other than food or feed)** that is composed, in whole or in significant part, of **biological products,.. or an intermediate ingredient or feedstock.**

It is not clear if in addition to conversion of renewable biomass to biofuels, a biorefinery is mandated to produce “biobased products” as well.

If the production of **“biobased products” is not mandatory**, then no further clarification is needed and a facility that produces advanced biofuels including vegetable oil meets the definition of a “biorefinery” regardless of production of “biobased products”.

If the production of **“biobased products” is mandatory** then more clarification is needed.

1. The term **(other than food or feed)** in (SEC. 9001, (4)) needs to be clarified.



a. Food and feed are commercial and industrial biological products that could be used as intermediate ingredient or feedstock and Secretary determination is not needed. This interpretation is in accordance with SEC. 9008. (a) (1) (B) that specifically includes animal feed as a commercial and industrial product derived in connection with the conversion of biomass to fuel. It is also in accordance with SEC. 9008 (e) (3) (B) (ii) that specifically includes animal feed as a part of the range of the diversified biobased products that potentially can increase the feasibility of fuel production in a biorefinery.

b. Food and feed are not biobased products.

In this case, a facility that converts biological material to advanced biofuels and food and/or feed by products will not meet the definition of a “biorefinery”, regardless of their high commercial or industrial value as foods, feeds, intermediate ingredient or feedstock .

An example will be a facility that produces advanced biofuel and other commercial or industrial by products that either have a high biological content or can be used as intermediate ingredient or feedstock.

If the by products are utilized in the food or feed supply chain, value will be added to them thus they could substantially reduce the cost of producing the advanced biofuel. However the facility will not meet the requirements of the “biorefinery” definition. Consequently, the facility’s technology will not meet the eligibility requirements of SEC. 9003 (B) (2) despite fulfilling the purposes and goals of SEC. 9003 (a) and having the potential to increase the feasibility of fuel production in that facility.

If the same products are utilized in a non food or non feed application thus leaving the food or feed supply chain, it is probable that their contribution to the production cost reduction of advanced biofuel will be minimal. However the facility will meet the requirements of “biorefinery” definition.

2. If the by product is not a **commercial or industrial product** and is not composed in a significant part of **biological products**, or if it is not **an intermediate ingredient or feedstock** then it is not a biobased product and the facility producing advanced biofuel will not meet the definition of “biorefinery” requirements.

In this case even a facility with a high degree of conversion of biological material to advanced biofuel while having a small by-product of non commercial or industrial value will not meet the “biorefinery” requirements.

An example will be a wood gasification facility that will convert most of the wood to clean combustion gas and will have a small non biological ash residue of no commercial or industrial value.

As applicable to SEC. 9005 and SEC. 9003, (b) (2), and in accordance to (SEC. 9001, (4)) SEC. 9008. (a) (1) (B) SEC. 9008 (e) (3) (B) (ii) and to above narrative from pct. 1a, we propose that the definition of “biorefinery” to be interpreted as:

**The term `biorefinery' means a facility (including equipment and processes) that-**  
**(A) converts any organic matter that is available on a renewable or recurring basis including agricultural commodities into advanced biofuels including vegetable oil that can be used directly or indirectly as fuel, fuel additive or fuel feedstock for the production of the energy, and**  
**(B) may produce electricity, and**  
**(C) may produce biobased products including food and/or feed**

**COMMENTS TO:**

**SEC. 9003 (d) (C) and SEC. 9003 (e) (C)**

**GRANTS AND LOAN GUARANTEES SCORING SYSTEM**

The purpose of SEC. 9003 is to assist in the development of new and emerging technologies for the development of advanced biofuels. (SEC. 9003 (a) PURPOSE), and the Secretary shall make available grants and load guarantees for eligible entities and on competitive basis.

For establishing the priority of eligible applications, scoring system has been established as per SEC. 9003 (d) (C) and SEC. 9003 (e) (C) for Grants and Loan Guarantees respectively.

Although both grants and loan guarantees could be applied to the same project same project, their scoring criteria are different as follows:

<b>Criteria</b>	<b>Grant</b>	<b>Loan Guarantee</b>
1. Scalability for commercial use (SEC. 9003 (d) (C) (ix))	Listed	Not Listed
2. Potential Market for advanced biofuels and bioproducts. (SEC. 9003 (d) (C) (i))	Listed	Not Listed
3. Applicant has established market for advanced biofuels and bio-products. (SEC. 9003 (e) (C) (i))	Not Listed	Listed
4. Significant negative impact on existing manufacturing facilities that use similar feedstock. (SEC. 9003 (e) (C) (vii))	Not Listed	Listed
5. Level of local ownership proposed in the application (SEC. 9003 (e) (C) (ix))	Not Listed	Listed

It appears that two scoring criteria for loan guarantees ((SEC. 9003 (e) (C) (i) and SEC. 9003 (e) (C) (vii))) are less helpful in serving the purpose of the SEC. 9003 (a) as to assist of new and emerging technologies for the development of advanced biofuels.

**We propose to introduce (SEC. 9003 (e) (C) (ix) into Grant scoring criteria ((SEC. 9003 (d) (C)) and to use Grant scoring criteria ((SEC. 9003 (d) (C)) as the sole scoring criteria for both Grants and Loan Guarantees.**

## RATIONALE FOR THE REQUEST

### SEC. 9003 (e) (C) (i)

The stated purpose of SEC. 9003 is to assist in the development of new and emerging technologies for the development of advanced biofuels and it will be unrealistic to expect to have an established market ((SEC. 9003 (e) (C) (i)) for advanced biofuels and biobased products for which the technology or market are still emerging.

(SEC. 9003 (e) (C) (i) is not helping in the development of new and emerging technologies when assistance is needed the most: before the establishment of a market. (SEC. 9003 (d) (C) (i) that consider the potential market instead is more in line with the purpose of SEC. 9003.

### SEC. 9003 (e) (1) (C) (vii)

The purpose of SEC. 9003 (e) (1) (C) (vii) needs clarification to determine of how it can serve the purpose of SEC. 9003 that is to assist in the development of new and emerging technologies for the development of advanced biofuels. (SEC. 9003 (a) PURPOSE).

As is written, the phrase “significant negative impacts on the existing manufacturing plants or other facilities that uses similar feedstock” could be interpreted in different ways.

One interpretation will be that if a certain feedstock is used by an existing manufacturing facilities to produce biofuels and non biofuel products, a new manufacturing facility that will use a similar feedstock but newer and more efficient technology to produce advanced biofuels will have a competitive advantage thus it may have a “significant negative impact on existing manufacturing facilities.

Consider for example the chemical conversion of vegetable oil (edible oil) to biodiesel. This technology is using hazardous and toxic chemicals, produces waste produce low value byproducts like glycerol and recovers only 90% of the feedstock as advanced biofuel. Any vegetable oil (including non edible) is in essence “similar feedstock” to the production of advanced fuels.

A technology for 100% non chemical conversion of vegetable oils into advanced biofuels on the farm, with no hazardous, toxic and pollutants waste and less energy, is a new and emerging technology that is more cost effective than those used in the existing manufacturing facilities. It is environmentally sound and if the advanced fuel is used locally in farm equipment it will reduce the farming expenses and may produce a new revenue stream from adding value to the vegetable oil from selling it as fuel and from tax credits benefits.

Even though the new technology has the potential to make the farm “fuel self sufficient” and regardless of its advance in vegetable oil production (high yields, new plants, algae,

marginal land) in essence the resulting vegetable oil is a “similar feedstock” to other vegetable oils, and therefore the proposed technology could impact less advanced existing manufacturing plants or other facilities that use similar feedstock for the oleo-chemical industry (paints, soaps, biodiesel, edible oils, oleo-chemicals etc.).

(SEC. 9003 (d) (C) (iii) criteria considers the use of feedstock not previously used in the production of advanced biofuels and it is more in line with the purpose of SEC. 9003.

Additionally, if the applicant is an agricultural producer and/or user of feedstock and/or the resulting biofuel or advanced biofuel, the impact on rural development, resource conservation, public health and environment is more positive regardless if the feedstock has been previously used as feedstock by existing manufacturing plants or facilities.

We propose that **(SEC. 9003 (e) (C) (ix), “level of local ownership” to be added to the Grant scoring criteria ((SEC. 9003 (d) (C)) grant scoring criteria (SEC. 9003 (d) (C) as sole scoring criteria for both grant and loan guarantee with (SEC. 9003 (d) (C) (iii) interpreted as follows:**

**“whether the applicant is proposing to use a feedstock not previously used in the production of advanced biofuels or regardless of use of a feedstock by existing manufacturing plants or facilities providing that advanced biofuel is produced on the farm”**

Thank you for your consideration and for the opportunity to comment.

Ion Manea

Principal,  
FLOWER POWER USA, Inc. & HERITAGE FARM COOPERATIVE

## REFERENCES:

### SEC. 9001. DEFINITIONS

#### (3) **ADVANCED BIOFUEL-**

- (A) IN GENERAL- The term `advanced biofuel' means fuel derived from renewable biomass other than corn kernel starch.
- (B) INCLUSIONS- Subject to subparagraph (A), the term `advanced biofuel' includes—....
  - (iv) diesel-equivalent fuel derived from renewable biomass, including vegetable oil

#### (4) **BIOBASED PRODUCT-** The term `biobased product' means a product determined by the Secretary to be a commercial or industrial product (other than food or feed) that is--

- (A) composed, in whole or in significant part, of biological products, including renewable domestic agricultural materials and forestry materials; or
- (B) an intermediate ingredient or feedstock.

#### (5) **BIOFUEL-** The term `biofuel' means a fuel derived from renewable biomass.

#### (7) **BIOREFINERY-** The term `biorefinery' means a facility (including equipment and processes) that--

- (A) converts renewable biomass into biofuels and biobased products; and
- (B) may produce electricity.

#### (12) **RENEWABLE BIOMASS-** The term `renewable biomass' means--...

- (B) any organic matter that is available on a renewable or recurring basis... including--...
  - (i) including renewable plant material including...
    - (I) feed grains;
    - (II) other agricultural commodities;
    - (III) other plants and trees;
    - (IV) algae;

### SEC. 9003. BIOREFINERY ASSISTANCE

#### (a) Purpose- The purpose of this section is to assist in the development of new and emerging technologies for the development of advanced biofuels, so as to--

- (1) increase the energy independence of the United States;
- (2) promote resource conservation, public health, and the environment;
- (3) diversify markets for agricultural and forestry products and agriculture waste material;

and

- (4) create jobs and enhance the economic development of the rural economy.

#### (b) Definitions- In this section:

- (1) **ELIGIBLE ENTITY-** The term `eligible entity' means an individual, entity, Indian tribe, or unit of State or local government, including a corporation, farm cooperative, farmer cooperative organization, association of agricultural producers, National Laboratory, institution of higher education, rural electric cooperative, public power entity, or consortium of any of those entities.

- (2) **ELIGIBLE TECHNOLOGY-** The term `eligible technology' means, as determined by the Secretary--

- (A) a technology that is being adopted in a viable commercial-scale operation of a biorefinery that produces an advanced biofuel; and
- (B) a technology not described in subparagraph (A) that has been demonstrated to have technical and economic potential for commercial application in a biorefinery that produces an advanced biofuel

## **SEC. 9008. BIOMASS RESEARCH AND DEVELOPMENT.**

(a) Definitions- In this section:

(1) BIOBASED PRODUCT- The term `biobased product' means--

(A) an industrial product (including chemicals, materials, and polymers) produced from biomass; or

(B) a commercial or industrial product (including animal feed and electric power) derived in connection with the conversion of biomass to fuel.

## **SEC. 9008 BIOMASS RESEARCH AND DEVELOPMENT**

(a) DEFINITIONS.-In this section:

(1) BIO BASED PRODUCT.-The term "biobased product" means-...

(B) a commercial or industrial product (including **animal feed** and electric power) derived in connection with the conversion of biomass to fuel....

(e) BIOMASS RESEARCH AND DEVELOPMENT INITIATIVE....

(3) TECHNICAL AREAS.- The secretary of Agriculture shall direct the Initiative in the 3 following areas:...

(B) BIOFUELS AND BIOBASED PRODUCTS DEVELOPMENT.- research, development and demonstration activities to support-...

(ii) product diversification through technologies relevant to production of a range of biobased products (including chemicals, animal feeds, and cogenerated power) that potentially can increase the feasibility of fuel production in a biorefinery.

## **SEC. 9003 (d) GRANTS.—**

(1) COMPETITIVE BASIS.—The Secretary shall award grants under subsection (c)(1) on a competitive basis.

(2) SELECTION CRITERIA.—

(A) IN GENERAL.—In approving grant applications, the Secretary shall establish a priority scoring system that assigns priority scores to each application and only approve applications that exceed a specified minimum, as determined by the Secretary....

(C) SCORING SYSTEM.—In determining the priority scoring system, the Secretary shall consider—

(i) the potential market for the advanced biofuel and the byproducts produced;

(ii) the level of financial participation by the applicant, including support from non-Federal and private sources;

(iii) whether the applicant is proposing to use a feedstock not previously used in the production of advanced biofuels;

(iv) whether the applicant is proposing to work with producer associations or cooperatives;

(v) whether the applicant has established that the adoption of the process proposed in the application will have a positive impact on resource conservation, public health, and the environment;

(vi) the potential for rural economic development;

(vii) whether the area in which the applicant proposes to locate the biorefinery has other similar facilities;

(viii) whether the project can be replicated; and

(ix) scalability for commercial use

## **SEC. 9003 (e) LOAN GUARANTEES.—**

(1) SELECTION CRITERIA.—

(A) IN GENERAL.—In approving loan guarantee applications, the Secretary shall establish a priority scoring system that assigns priority scores to each application and only approve applications that exceed a specified minimum, as determined by the Secretary....

(C) SCORING SYSTEM.—In determining the priority scoring system for loan guarantees under subsection (c)( 2), the Secretary shall consider—

- (i) whether the applicant has established a market for the advanced biofuel and the byproducts produced;
- (ii) whether the area in which the applicant proposes to place the biorefinery has other similar facilities;
- (iii) whether the applicant is proposing to use a feedstock not previously used in the production of advanced biofuels;
- (iv) whether the applicant is proposing to work with producer associations or cooperatives;
- (v) the level of financial participation by the applicant, including support from non-Federal and private sources;
- (vi) whether the applicant has established that the adoption of the process proposed in the application will have a positive impact on resource conservation, public health, and the environment;
- (vii) whether the applicant can establish that if adopted, the biofuels production technology proposed in the application will not have any significant negative impacts on existing manufacturing plants or other facilities that use similar feedstock;
- (viii) the potential for rural economic development;
- (ix) the level of local ownership proposed in the application; and
- (x) whether the project can be replicated.

Robin Robinson  
Special Assistant to the Administrator  
USDA Rural Business and Cooperative Programs  
1400 Independence Avenue, SW (Rm-4231)  
Washington, DC 20250

Dear Ms. Robinson:

On behalf of Tyson Foods, Inc., a joint partner with Syntroleum Corporation in a new alternative fuels venture, Dynamic Fuels, we appreciate the opportunity to provide comments on some of the critical programs in Title IX of the Food, Conservation, and Energy Act of 2008.

For the purposes of background, Dynamic Fuels is a 50:50 venture between Tyson Foods, Inc. and Syntroleum to convert a variety of inedible fats and greases into renewable transportation fuels for both military and civilian markets. These fuels will include high-quality on-road renewable diesel as well as premium aviation fuel. For both applications, our fuels will be completely fungible within the existing fuel infrastructure and will have superior environmental and performance characteristics.

On October 6, 2008, Dynamic Fuels will break ground on our first biofuels facility in Geismar, Louisiana. Production is scheduled to begin in 2010. This facility, the first of its kind in North America, will produce 75 million gallons of renewable synthetic fuel annually. It is our intention that this will be the first of several Dynamic Fuels facilities in North America.

As we assess plans for future advanced biofuels plants, the loan guarantee program contained in Section 9003 of the energy title is of critical importance. The ability of USDA to provide loan guarantees up to a value of \$250 million, and to guarantee up to 90 percent of the loan amount, will be critical to many future advanced biofuels facilities. When establishing the criteria for awarding these loan guarantees, we encourage USDA to give special consideration to projects that: bring first of their kind technologies to the United States; are compatible with the current fuel infrastructure; utilize an innovative range of feedstocks; and meet or surpass the performance standards of comparable petroleum products. In addition, we urge USDA to give equal consideration to advanced biofuels facilities that produce aviation fuels. Renewable jet fuel has great promise both in military and civilian applications and we hope that Section 9003 as well as other sections of the energy title will fully support the production of renewable aviation fuels.

Another significant program in the energy title is Section 9005, the Bioenergy Program for Advanced Biofuels. This program can provide critical funding to support the next generation of biofuels. As guidelines are developed for Section 9005, we urge you to give special consideration to new or increased production on a year-to-year basis. While some level of support for existing production is reasonable, we would recommend a higher level of support for new or increased production. A tiered system will help to ensure that the program will truly be encouraging the development of new processes and technologies, and not just supporting more established biofuels technologies. In addition, for the purposes of this program, we recommend that feedstocks be treated in a neutral fashion as Dynamic Fuels, and many other emerging biofuels companies, may utilize a variety of different feedstocks during the same production run.

Again, we are grateful for the opportunity to comment on these sections of the energy title and look forward to working with USDA further on the implementation of these important programs.



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43785 Galaxy Drive  
La Quinta, CA 92253

VIA EMAIL

September 19, 2008

Ms. Robin Robinson, Confidential Assistant  
Office of the Administrator  
USDA Rural Development, Business, and Cooperative Programs, Room 5803  
South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201  
(202) 690 - 4730  
Email [robin-robinson@wdc.usda.gov](mailto:robin-robinson@wdc.usda.gov)

Dear Ms. Robinson:

Carbon Capture Corporation ("CCC") is engaged in the nascent algae-based biofuel industry, spurred by growing concerns over reliance on imported oil, shortages of food supplies, and greenhouse gas emissions leading to global warming. These concerns have created demand for algae-based products that can provide alternative fuels, supplement the world's food supply, and help reduce carbon emissions. Our vision is to help reverse global warming while producing local, affordable, renewable and sustainable fuels. We utilize carbon dioxide (CO<sub>2</sub>) emitted from stationary sources such as fossil fuel power plants to accelerate the growth of algae, and plan on using the resulting biomass to produce green alternatives to natural gas, butanol, diesel or jet fuel propellants. Other applications include the production of certain animal feed. The impact is a reduction of CO<sub>2</sub> emissions into the atmosphere via certain fossil fuels displacement. An added benefit includes new sustainable, indigenous and renewable fuels from a source that does not compete with food crops.

CCC is submitting the following comments applicable to sections 9003, 9005, 9007 and 9008 in response to the public meeting held September 4, 2008.

1. This matter is urgent, and we look forward to engaging as soon as possible.
2. Efforts funded under this program should include algal-derived renewable diesel, methane and jet fuel propellant (JP-8). For Diesel, we recommend the use of ASTM standard for Ultra Low Sulfur diesel fuel; D975-8. Algal-derived JP-8 should be suitable for US military applications.
3. We recommend that USDA does not restrict or limit algal species at this stage.
4. We urge USDA to increase and give the maximum funding from discretionary and mandatory sources.

Sincerely,

A handwritten signature in black ink that reads "B. Raemy". The signature is written in a cursive, flowing style.

Bernard Raemy  
Executive Vice President  
Carbon Capture Corporation

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**ABENGOA BIOENERGY**  
**ABENGOA BIOENERGY BIOMASS OF KANSAS**

September 19, 2008

Submitted via e-mail to: robin.robinson@wdc.usda.gov

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, Stop 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

Re: Comments on Section 9003, 9004, 9005 and 9011 (Biorefinery Assistance, Repowering Assistance, Bioenergy Program for Advanced Biofuels, and Biomass Crop Assistance Program).

Dear Under Secretary Dorr:

On behalf of Abengoa Bioenergy, we are extremely pleased and grateful for the USDA's continued support of the renewable fuels industry. We believe that the direction the USDA is taking as reflected in the Energy Title of the Food, Conservation and Energy Act of 2008 will be critical for the further development of the domestic production of Advanced Biofuels and Cellulosic Biofuels, both of which are key strategic fuel alternatives aimed at the sustainable reduction of foreign oil consumption.

As you are probably aware, Abengoa Bioenergy is in the process of developing a biorefinery project that will produce up to 84 million gallons per year of Advanced Biofuel, 12 million gallons per year of Cellulosic Biofuel, and 500 Million BTU's per hour of synthesis gas from biomass, another type of Advanced Biofuel. This project is the first commercial application of Abengoa Bioenergy's biomass technology, and has the potential of being replicated in other parts of the country, helping grow our domestic production of Advanced Biofuels and Cellulosic Biofuel. The growth of Advanced Biofuels and Cellulosic Biofuel is critical to the growth of renewable fuel because it expands the existing ethanol industry on non-corn feedstocks inside and outside the corn belt, creating a higher potential sustainable output of ethanol.

We greatly appreciate your efforts to seek public input on the implementation of Title IX. We are especially grateful for the opportunity to present information at the Sept. 4 public meeting on the subject and to be able to follow up our public presentation with additional written comments.

The following is a summary of our comments on some of the sections in Title IX.

Section 9003, Biorefinery Assistance Program

The Loan Guarantee Program has significant potential to assist Biorefineries that will produce Advanced Biofuels. There are several aspects regarding the details of the Loan Guarantee Program that can greatly affect this potential assistance:

- o In part (e)2 Limitations.- the loan guarantee amount has three limitations, \$250,000,000 total, 80% of total project costs, and 90% of the principal and interest due on the guaranteed loan. It is imperative that with the 90% limitation of the principal and interest, stripping of the non-guaranteed portion of the debt be allowed, for the following reasons:
  - The rating associated with a partially guaranteed obligation will be substantially lower than the 'AAA' rating of a fully guaranteed instrument. The result of the higher credit risk will be less attractive financing, in terms of rates, required collateral, sponsor guarantees, term, etc.

- An inability to strip will create a hybrid loan facility for which there is no market, a debt instrument with an unsecured, non-guaranteed portion equivalent to "quasi-equity", for which there is no true market.
- o Although not mentioned, it is important that the loan guarantee be non-recourse as to all persons and entities. This is the type of project financing that a parent company such as Abengoa Bioenergy will be willing to commit the required equity and is a typical project financing structure for this type of project. If not a non-recourse project financing then the parent company will be guaranteeing all or part of the debt, which is not feasible.
- o The program's availability is critically important with regards to Abengoa Bioenergy's Hugoton Kansas project. It is critical for successful financing that this program is available by the end of 2nd quarter 2009, or financing of the project could be delayed.

#### Section 9004, Repowering Assistance

To maximize the impact of this section for the industry, we propose the following considerations:

- o Allow the term "existing Biorefineries" to include those that had received financing and committed to the use of fossil fuels but prior to the completion of construction at the time of the passage of this legislation. This will allow for the inclusion of several projects that will be large fossil fuel consumers and potentially increase the impact of this program in reducing overall fossil fuel consumption.
- o Considerations for award should include:
  - The potential to replicate the method of fossil fuel consumption reduction at other Biorefineries,
  - Replacement of fossil fuels vs. reduction methods. Replacement technology tends to have a larger potential to reduce fossil fuels and can be more readily replicated at other Biorefineries. Replacement of fossil fuels also tends to be newer technology in more need of assistance than reduction methods.

#### Section 9005, Bioenergy program for advanced biofuels

It is our position that an ethanol plant producing Advanced Biofuel from sorghum should qualify for payments under this program. Payments to producers of advanced biofuels including sorghum would help support a stable and expanding production base in the semi-arid regions of the US, also known as the sorghum belt. Sorghum's qualification for payment in this program helps develop a second, starched-based feedstock that would help expand the ethanol industry outside of the corn belt. Payments under this program would also provide incentives to grow sorghum in the semi-arid regions of the US, rather than encourage irrigated corn production which has a significant impact on our water supplies. Sorghum is one of the most drought tolerant crops grown in the world and it plays an important role in the rural economy of the semi-arid plains.

It is also our position that all producers of advanced biofuels should qualify for the same payment rate. Payments for each gallon of production should be the same for every type of advanced biofuels.

We also encourage USDA to develop a program that pays biofuel producers if the plant produces Advanced Biofuel for a portion of the year, and possibly Biofuel from corn for the remainder of the year. This situation will occur as Advanced Biofuel facilities targeting sorghum as a feedstock come on line and the demand for sorghum is greater than sorghum production in the beginning years, until this production increases to meet demand. If there is a shortage of sorghum, a plant may have to resort to corn as a feedstock, but still should legitimately qualify for Advanced Biofuel payments for actual Advanced Biofuel gallons produced in a given year.

## Section 9011, Biomass Crop Assistance Program

The BCAP could be one of the single most important programs for the growth of Advanced Biofuels and Cellulosic Biofuels. There is a significant challenge today in the cost of transition and establishment of non-corn based and cellulose based feedstocks to supply second and third generation Biorefineries. Successful rapid establishment of this new supply chain could make a difference in years how quickly these renewable fuels can make a real impact on our nations cost of energy. We offer the following comments:

- In part (a)7, the definition of Producer should allow for partial investment or ownership by companies that may also qualify as a Project Sponsor under (a)8. In many cases the biomass crop producer may require outside investment to move forward as a biomass crop producer, and this investment money may only be available from a Project Sponsor. This is especially true for establishment cost payments that are limited to 75% of actual cost.
- In part (c)5(B), Inclusion of the cost of land preparation for the establishment of perennial crops, including:
  - Leveling of land to make it suitable for harvesting equipment
  - Weed control during the first three years of establishment of the new crop
  - Nutrient supplements as needed (micro nutrients more likely than macro nutrients)
- All of these costs will be real costs and are necessary for the successful establishment of perennial crops. The cost will differ by region and previous land use and management, but to maximize effectiveness of this incentive, the definition of land preparation costs needs to be sufficiently broad. These items should be included under 5 (B) ii, the cost of planting the perennial crop, as determined by the Secretary.
- Although the law excludes land currently enrolled in CRP, we feel it is critical for the successful establishment of energy crops that this program supports the pro-active and sustainable conversion of CRP acres into eligible land under this program. Benefits from this include:
  - For acres that are coming off of CRP and can't be re-enrolled due to oversubscription, which is the case near our project in Hugoton, Kansas, those acres could be converted to producing switchgrass that would preserve the same conservation goals of CRP, and after a few years after the BCAP incentives expire will be supported by private industry. The alternative is these fragile soils can be torn up and converted to farmland.
  - For landowners who want to convert from CRP to this program for economic reasons, the benefits are the same as above, CRP conservation goals met and after the BCAP incentives expire the cost will be covered by private industry.
  - Any acres converted from CRP to BCAP will reduce the cost to the program (CRP), while maintaining the conservation goals.
  - Two mechanisms to support conversion from CRP:
    1. Allow CRP acres that will come off contract within three years to qualify for establishment payments.
    2. Provide an extension for acres coming off CRP in the near term, before the availability of BCAP, as a bridge to get those acres into BCAP and maintain the conservation benefits of CRP. Again, the alternative is these acres would be torn up and converted to farmland.
- In part (d), allow for a third party, other than the Project Sponsor or land owner, to qualify for this payment, and allow for investment and ownership by the project sponsor. Again, a situation where investment by the project sponsor may be necessary to create this step of the supply chain.

- Overall, for this program to add as much value as possible to a Project Sponsor, a commitment from BCAP needs to be possible prior a project receiving financing, as BCAP may actually enhance financing terms.

Again, we appreciate your efforts to solicit public comments on Title IX and we look forward to continuing to work with the USDA for the advancement of our domestic renewable fuel industry. We would also like to invite you or anyone from the Committee or USDA to come to Hugoton Kansas and visit our development office and site to witness first hand the progress we are making on our Advanced and Cellulosic Biofuel Biorefinery; the pleasure would be ours.

If there are any questions or comments regarding the information we have provided, please contact me at any time at 636-236-6199 or by e-mail at [christopher.roach@bioenergy.abengoa.com](mailto:christopher.roach@bioenergy.abengoa.com).

Regards,

A handwritten signature in blue ink that reads "Chris Roach". The signature is fluid and cursive, with the first letters of "Chris" and "Roach" being capitalized and prominent.

Chris Roach  
Business Development Manager

Statement of  
C. Kyle Simpson, Brownstein Hyatt Farber Schreck  
On behalf of Rentech, Inc.  
At the Public Meeting on Implementation of  
Title IX, Energy Authorities of the Food, Conservation and Energy Act of 2008  
Rural Business-Cooperative Service, USDA  
September 4, 2008

Thank you for this opportunity to provide comments on the implementation of Title IX, the Energy Authorities of the Food, Conservation and Energy Act of 2008 (the Act). My name is Kyle Simpson. I am appearing at this public meeting on behalf of Rentech, Inc., which is one of the world's leading synthetic fuels technology and development companies. Over the last twenty five years, the company has developed and patented the Rentech Process, an advanced version of the well-established Fischer-Tropsch process. The Rentech Process can convert a wide array of carbon-bearing materials, including green resources such as biomass, into ultra clean fuels and chemicals. Our objective is to create value for our stakeholders by helping the world reduce its dependency on oil and to lower emissions, including harmful greenhouse gases.

With these goals in mind, we strongly supported the inclusion of language in the conference report that accompanied the Act that specifically encourages the Secretary of Agriculture and the Secretary of Energy to put development of renewable aviation fuels on equal footing with other fuels by giving consideration to projects under the initiatives in Title IX that would perform innovative and beneficial research and commercial development of renewable aviation fuels.<sup>1</sup> This language in the conference report clearly shows that Congress sought to expand the United States Department of Agriculture's (USDA) efforts on renewable fuels development to include renewable aviation fuels. Further, the bill's managers in Congress recognized that the development of renewable fuels for aviation have lagged far behind other fuels and sought to put them on equal footing.

Rentech is a company that is developing a U.S.-based synthetic jet fuel production capability and is interested in support from the federal government under the Act to commercialize the conversion of crops and forestry waste to jet and other fuels. An initial customer for this renewable aviation fuel will be the U.S. Air Force. Loan guarantees and other financial assistance authorized by the Act will help greatly to meet the challenges of financing projects to supply fuel to the Air Force and to the private airline industry as well. In the Act, Section 9003, the Biorefinery Assistance Program, and Section 9005, the Bioenergy Program for Advanced Biofuels authorize initiatives that could provide funding that would help us to accelerate our

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<sup>1</sup>H.R. REP. NO. 110-627, at 911 (2008) (Conf. Rep.) ("The Managers recognize the tremendous potential market that exists in this country for renewable aviation and jet fuel, and acknowledge that while much research and development has been directed toward, the development of biofuels for ground transportation, the development of renewable aviation fuels has lagged far behind. For this reason, the Managers encourage the Secretary of Agriculture and the Secretary of Energy to give equal consideration to projects under this initiative that would perform innovative and beneficial research and commercial development of renewable aviation fuels.")

ability to demonstrate the company's capacity to commercialize a facility to make renewable aviation fuels.

For example, as part of our development plan, Rentech would like to acquire a gasifier to convert renewable feedstocks to synthetic gas. Rentech has a propriety process that can convert that syngas to jet fuel. The current challenge is the commercialization of biomass gasification systems, which exist but are not in commercial operation in the United States. Rentech would like to acquire and install an existing gasifier at its East Dubuque, IL, fertilizer plant. The gasifier would provide syngas from biomass to the fertilizer plant for fertilizer production, which would be a one-of-a-kind facility, and we would also transport syngas to our product demonstration unit in Colorado where it would be used to produce jet fuel. Just a few weeks ago, Rentech began to produce synthetic aviation fuel from natural gas at our product demonstration unit. We are anxious to produce synthetic aviation fuel from renewable resources.

In addition to Sections 9003 and 9005 in the Act, other sections that you are taking comment on today may be well suited to advance the development of renewable aviation fuel and feedstocks for that purpose. As intended by Congress, we encourage you to give equal consideration to projects implemented under any of these initiatives that would perform innovative and beneficial research and commercial development of renewable aviation fuels.



National Alliance of Forest Owners  
Comments to the  
U.S. Department of Agriculture  
Regarding Implementation of Title IX,  
Food, Conservation, and Energy Act of 2008  
Submitted on September 15, 2008

## **Introduction**

The National Alliance of Forest Owners (NAFO), a growing alliance of private forest owners, managers and organizations dedicated to protecting and enhancing the economic and environmental values of private forests across the country, appreciates the opportunity to comment on sections 9003 and 9011 of the Food, Conservation, and Energy Act of 2008. NAFO members own or manage over 66 million acres of private forests in 47 states.

While our members are engaged in the traditional forestry business, they are increasingly engaged in supplying wood, wood waste and wood residues for use as a feedstock to produce renewable fuels and electricity. NAFO believes that America's well-managed forests will play an important role in meeting U.S. energy needs in the future and that domestic policy should encourage investment in forests as a source of renewable energy.

## **General Comments**

NAFO shares the Department of Agriculture's commitment to expanding rural communities' opportunities for business development in the energy sector. We believe that USDA's new authorities under the Food, Conservation, and Energy Act (Farm Bill) provide a comprehensive roadmap to develop a substantial, sustainable renewable energy industry. NAFO supports the Farm Bill's clear intent to administer all of these programs in a manner that is feedstock and technology neutral.

The new and expanded energy programs provided under Title 9 of the Farm bill establish USDA as the principal federal agency responsible for supporting each sector – from field to fuel – of the fledgling bioenergy industry. We encourage the USDA to administer these Title 9 programs in a manner that places working forests on equal footing with other working lands in the development of this industry. While foresters did not have many opportunities to participate in the first generation of biofuels, centered on corn ethanol, the second generation of biofuels, focused on cellulosic feedstocks, represents a tremendous opportunity for working forests and this nation. With more than 425 million acres of private forestland in the U.S., our forests can support the growth of this industry in all regions of the country, and help grow the economies of rural communities.

## **Section Specific Comments**

NAFO offers comments on two specific sections within Title IX of the Farm Bill.

### **1. Section 9003. Biorefinery Assistance**

**§9003(E)(1)(C)(vii). “Scoring System- In determining the priority scoring system for loan guarantees under subsection (c)(2) the Secretary shall consider-**

***(vii) whether the applicant can establish that if adopted, the biofuels production technology proposed in the application will not have any significant negative impacts on existing manufacturing plants or other facilities that use similar feedstocks.”***

The Biorefinery Assistance Program established in the Farm Bill enumerates ten factors to be considered by the Secretary in making a determination whether to award a loan guarantee to an applicant. These factors generally relate to the ability of an applicant to demonstrate a high probability of success for the proposed facility. Although the USDA is directed to consider the potential impact a project would have on incumbent forest products industries in the immediate vicinity, this should be considered in context and balanced against other important enumerated considerations, such as the potential for new markets and rural economic development.

There have been concerns raised by some regarding the impact of a forestry-based commercial bioenergy industry on existing manufacturing capabilities. While we understand these concerns, we do not believe a conflict exists. As new markets develop, we are confident that private forests can provide feedstock for biofuels and bioenergy while also continuing to providing resources for existing timber-based industries. In fact, it is likely that an expanding renewable energy market reliant on wood will increase both the number and productivity of forested acres. In addition, a maturing market will create or expand opportunities for integration between existing manufacturing and energy production.

Section 9003 requires applicants to demonstrate that a project will not have a significant negative impact on manufacturing plants that use similar feedstocks. We believe that this is a threshold that the vast majority of applicants will easily be able to meet. At the same time, we urge USDA to use care to maintain the elasticity of wood supplied to energy and manufacturing both to optimize its availability for energy production and to avoid creating an unfair market advantage for one sector over another. NAFO asks that USDA interpret this factor as applying in only the most limited of circumstances where the actual harm of a biorefinery to an incumbent industry is immediate, significant and outweighs the benefit the proposed biorefinery would bring to the region. Promising biorefinery project applications should not be disqualified based on a perception of harm, or because the project will result in an incremental feedstock price increase.

## 2. Section 9011. Biomass Crop Assistance Program

### §9011 (a)(5)(A)

#### ***“ELIGIBLE LAND.-***

***(A) IN GENERAL- The term “eligible land” includes agricultural and nonindustrial private forest lands (as defined in section 5(c) of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2103a(c)).***

NAFO believes that all private forest owners, regardless of their size or status should have the ability to participate in this program. Accordingly, we encourage the USDA to strictly interpret this section in accordance to the law it references:

***For the purposes of this section, the term “nonindustrial private forest lands” means rural, as determined by the Secretary, lands with existing tree cover, or suitable for growing trees, and owned by any private individual, group, association, corporation, Indian tribe, or other private legal entity.***

Again, we believe access on an even playing field is essential to the full realization of these new programs and accordingly discourage any impediments to participation based on arbitrary definitions of qualifying lands.



## Comments of Sapphire Energy

**Notice of Public Meeting entitled "Expanding Rural Renewable Energy Opportunities – Inviting a Dialogue with the Public on the new authorities of the Food, Conservation, and Energy Act of 2008 (Pub. L. 110-234) ("the Act")."**

**submitted to**

**Department of Agriculture, Rural Business Cooperative Service**

**September 19, 2008**

Robin Robinson  
Rural Business-Cooperative Service  
US Department of Agriculture  
Room 5830 South Agriculture Building  
STOP 3201  
1400 Independence Avenue, SW  
Washington, D.C. 20250-3201

On behalf of Sapphire Energy, I submit the comments below on specific sections of Title IX of the Farm Bill. The US Department of Agriculture is taking public comment and "initiating a dialogue" on the implementation of Title IX of the Farm Bill. Sapphire Energy appreciates the opportunity to file these comments.

Sapphire was incorporated in May of 2007 and is headquartered in San Diego. Sapphire's goal is to be the world's leading producer of clean, renewable crude oil from industrial microorganisms and create an entirely new industry category – "Green Crude Production". Fuels from renewable sources such as algae are going to play an increasing role in mitigating the effects of the world's dwindling oil supply. Sapphire Energy's platform takes advantage of breakthroughs in science and solar energy to produce a synthetic energy that is carbon positive, renewable and replaces petrochemical-based products. Sapphire's Green Crude can be seamlessly integrated into the global liquid fuel transportation and refining network.

Sapphire Energy will truly change the energy and petrochemical landscape, leading the way to an independent, American energy future.



Sapphire's primary concern here is to maintain a level playing field in the implementation of Title IX, as well as all other programs implemented by USDA. It is Sapphire's position that algae represents the best hope for a source of alternative fuels and, therefore, the best hope for energy independence.

Our comments here will be focused on Sections 9002, 9003, 9005, 9008, and 9011 of Title IX.

#### Section 9002 – Bio-based Markets Program

It would appear that Congress intended in Section 9002 to create a procurement preference for bio-based products, including biofuels deriving from renewable biomass. Algae qualifies as renewable biomass and therefore qualifies for the procurement preference. Sapphire Energy supports this interpretation. The language of Section 9002 also provides flexibility to agencies to decline to grant a preference where the subject of the potential preference is not reasonably available within a reasonable period of time or is only available at an unreasonable price.

Algae has emerged relatively recently as a potentially valuable alternative fuel source, as well as a source of other products. Its relatively recent arrival does not warrant a different level of treatment in procurement decisions. If producers of algae-based products can meet the price and timing demands of federal agencies and negotiate comparable, if not superior terms, they should be rewarded not penalized. It is the position of Sapphire Energy that the agency flexibility in Section 9002 should not be interpreted as second-class treatment for emerging sources such as algae. It is also the position of Sapphire Energy that Congress should not have excluded, later in subsection 9002(d), the procurement of vehicle fuels, heating oil and electricity from the program. This is precisely where algae shows the greatest promise and where the Farm Bill was presumably aimed. But we are considering our options in this section and may take up this language with Congress, not USDA.

#### Section 9003 – Biorefinery Assistance

Sapphire Energy strongly supports the creation of a comprehensive biorefinery program. Algae refiners, emerging to become key players among alternative fuel producers, will be able bring the substantial promise of algae to market with assistance such as that authorized in Section 9003. It is our interpretation that algae will qualify for the important grants authorized here. A biorefinery is defined as one that converts renewable biomass into biofuels and bio-based products, and algal-based fuels and byproducts qualify as biofuels and bio-based products. We urge USDA to preserve this interpretation.

#### Section 9005 – Bioenergy Program for Advanced Biofuels

This program provides financial support to small biofuel producers. Sapphire Energy supports this program, although remain concerned that the 150 mmgy cap on eligible facilities might either serve as a disincentive to growth in production or make it difficult for producers to transition into larger-scale production. This production limit is a thoughtful one when considering facilities that make non-fungible fuels such as ethanol. However, technologies such



as Sapphire that are integrating fungible products into the crude or product pipelines will likely follow the more traditional oil industry scale up, a process by which we will pilot and produce volumes at around the 300 barrel per day level (approximately 4 MMgy) and then transition from there directly to world-scale at around 30,000 to 60,000 barrels per day. Facilities that produce less than 150 mmgy are not considered significant by traditional upstream standards. Thus, we urge that this support be expanded to facilities that are more common first commercial world-scale.

#### Section 9008 – Biomass Research & Development

Research and development in biofuels and bio-based products is an important objective of the Farm Bill. Sapphire Energy supports this initiative and intends to participate as a research and development grant recipient, as well as in the activities of the Biomass Research & Development Board and the Biomass Research & Development Technical Advisory Committee.

#### Section 9011 – Biomass Crop Assistance Program

This program supports biomass crops with financial assistance. Sapphire Energy supports crop assistance for all biomass crops, including algae, perhaps the most promising of all the energy biomass crops. The language appears to include algae as an eligible crop for purposes of receiving assistance, and Sapphire Energy urges USDA to preserve that interpretation. Language in this section applicable to collection and harvesting excludes algae from the definition of “eligible materials”. It would appear that this exclusion has limited application in the text. It is perhaps only applicable to the payment of assistance to third-parties other than the producer. This ambiguity is problematic and we urge USDA to enforce an interpretation that does not in any way prevent algae growers and producers from participating in this important program.

Thank you for this opportunity to express our opinions regarding the implementation of Title IX. Sapphire Energy expects to be involved hereafter in this rulemaking as well as any other proceedings. We look forward to working with you on this important matter.

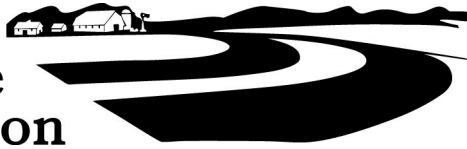
A handwritten signature in black ink, appearing to read "Tim Zenk".

Tim Zenk  
Vice President, Corporate Affairs  
Sapphire Energy

**9004**

1. Number of Grants, 20 in 2009--Grant-Recommend 250 K max single year.  
Use for –profit business only.
2. All biomass feedstocks should be considered that has hard data for net energy.
3. Agreed—With one additional amount of CO2 reduced
4. Yes—consideration should be given for new projects through 2012. Existing bio-refineries apply for future payments without additional systems supplied
5. Maximum percentage of eligible costs should be 50%
6. Eligible matching fund sources—Cash, Equity, Line of credit, other grant income
7. Financial need factors—ability for the bio-refinery to be commercially viable in 7-10 years.
8. All proven technology should be allowed
9. Yes—Minimum reduction of fossil fuels of 30%

# Sustainable Agriculture Coalition



September 19, 2008

Robin Robinson  
Office of the Administrator  
USDA Rural Development, Business and Cooperative Programs  
Room 5803, South Agriculture Building, Stop 3201  
1400 Independence Ave., SW  
Washington, DC 20250-3201

Re: USDA Listening Session on Title IX Energy Authorities of the Food, Conservation and Energy Act of 2008 (73 Federal Register 50302).

Dear Ms. Robinson,

Thank you for the opportunity to provide written comments on behalf of the Sustainable Agriculture Coalition (SAC) in response to "Notice of a Public Meeting on Implementation of Title IX, Energy Authorities of the Food, Conservation and Energy Act of 2008" (73 Fed. Reg. 50302). These written comments supplement a SAC presentation at the September 4, 2008 USDA listening session. SAC represents 33 family farm, rural development, conservation and environmental organizations from around the U.S. that share a commitment to federal policy that promotes sustainable agriculture production systems, family-based farms and ranches, and healthy, vibrant rural communities. Many of our organizations have a long track record providing farmers and ranchers with information and technical assistance to increase on-farm energy efficiency and renewable energy production, including renewable energy for on farm use. A list of current SAC member organizations is appended to these comments.

## **GENERAL COMMENT ON THE FARM BILL'S ENERGY TITLE**

With the enactment of an Energy Title in the 2002 Farm Bill, it was clear to SAC that the federal government would be committing significant resources to the development of bioenergy from agricultural feedstocks and other energy generation based on farms and in rural communities. SAC was concerned with the initial focus on the production of ethanol from corn - especially continuous corn monocultures - whose production requires high levels of fertilizer, pesticides and fossil fuel. We also wanted to ensure that rural communities would share in the benefits of agriculturally-based bioenergy and would not just be "mined" for bioenergy resources.

SAC prepared a position paper entitled *Renewable Energy from Farms*, which was endorsed by many of our member organizations shortly after enactment of the 2002 Farm Bill. This paper embodies our vision for a sustainable energy future. The following three points from the General Principles for Sustainable Agriculture and Energy in the position paper are particularly relevant to ensuring that the 2008 Farm Bill energy programs improve the environment, health and economic wellbeing of our nation's farms, ranches and rural communities:

1. The immediate priority of any energy policy is to manage current energy usage through conservation and energy efficiency. Reducing unnecessary use of energy is common sense, saves



money, and helps the environment. Likewise, numerous studies have shown that improving the efficiency with which energy is used is the cheapest and quickest energy "source";

2. Development of new energy sources should not only be ecologically sound, but socially responsible and locally managed when possible. A farm-based sustainable energy system has great potential to be naturally responsive to the economic needs of rural communities and family farmers. The public good of a farm-based energy system must meet the same criteria of a sustainable agriculture system: economically viable, locally managed, ecologically sound and socially responsible. The appropriate scale of new renewable energy systems must be considered; and

3. Biomass energy should be grown or produced in a sustainable way that provides net environmental benefits. Biomass energy crops should be grown and harvested in a way that embodies best stewardship practices to maintain or improve air, water and soil quality. Criteria for judging sustainable biomass energy production includes:

- **Impact on water quality.** Surface or ground water should not be polluted with sediments from erosion, with pesticides, with nutrients, or with any other waste products. Aquatic ecosystems should not be harmed and water should not be consumed beyond replacements levels.
- **Impact on soil quality.** Soil quality should not be degraded. Soil organic content, water retention, and fertility should be improved.
- **Effect on wildlife.** Harmful effects on wildlife should be held to a minimum with sound and effective wildlife conservation planning.
- **Effect on air quality.** Biomass energy production should result in a net increase in air quality, from net reduction in such air pollutants as oxides of nitrogen, particulate matter and carbon dioxide.
- **Net energy balance.** More energy should be released through biomass energy use than is consumed in producing it (over its lifecycle). This includes energy consumed from planting, cultivating, any fertilizer or pesticide application, harvesting and transporting to market.
- **Diversity.** Biomass energy production must avoid the monoculture trends of industrial agriculture. Crop rotations must be incorporated at the landscape scale in order to ensure sufficient diversity of species to attain soil quality, wildlife habitat, and ecosystem health.

With biomass energy production increasing the pressure on the nation's agricultural and natural resources, it is well worth the time, effort and forethought of USDA to develop energy systems in rural areas - including a mix of biomass, wind, and solar - that improve the environmental performance of agriculture and increase the health and economic vibrancy of rural communities. Energy production from agricultural systems will only be truly "renewable" if it does not erode and degrade the nation's agricultural and natural resource base.

## COMMENTS ON SPECIFIC SECTIONS OF THE 2008 FARM BILL ENERGY TITLE

### Section 9004: Repowering Assistance

A biorefinery seeking assistance from USDA to replace fossil fuels with renewable biomass in its operations must demonstrate to the USDA Secretary that the renewable biomass system is feasible based on an independent study that accounts for economic, technical, and environmental aspects of the system.

SAC recommends that in implementing this provision USDA require that the analysis of environmental aspects include the environmental effects of the production of the renewable biomass feedstock. We further recommend that USDA provide not just for an accounting of environmental aspects but also for accountability by the biorefinery for any net environmental harm arising from the production and use of the renewable biomass.

## **Section 9007: Rural Energy for America Program (REAP)**

### **1. Section 9007(b): Energy Audits and Renewable Energy Development Assistance**

#### ***a. Subsection 9007(b)(2) “Eligible Entities” Should include Non-profit Organizations with Demonstrated Expertise and Experience in Working with Farmer and Ranchers to Conduct Energy Audits and Develop Renewable Energy.***

We urge the USDA Secretary to use the authority in Section 9007(b)(2)(D) to provide in REAP regulations that “entities eligible” to receive grants for providing energy efficiency and renewable energy assistance to agricultural producers and rural small businesses include non-profit organizations with expertise in energy efficiency audits and renewable energy systems and a demonstrated track record of working with farmers and ranchers and small rural businesses.

A number of SAC non-profit organization members have years of experience working with farmers, ranchers, and rural communities on energy audits and renewable energy systems. A few examples of this work include:

The Kansas Rural Center’s Wind Energy Projects: The Kansas Rural Center has undertaken projects to promote community wind projects in Kansas rural communities. A Wind for Schools Project led by the The Kansas Rural Center and Kansas State University is working to install 1.9 kW Skystream wind turbines at 15 rural schools during the next three years. The project has selected the first round of school applicants and is installing turbines during the spring and summer of 2008 at five Kansas schools. A second round of projects has been selected for installation in 2009. The Kansas Rural Center is also conducting Regional Wind Energy Forums in communities across the state, in partnership with County Economic Development offices, several RC&Ds, Farm Bureau county committees, National Renewable Energy Laboratory, and the Kansas Energy Office. These Regional Forums examining opportunities and barriers to wind energy development, looking at such issues as leasing and landowners’ rights, community wind development, state policies concerning wind development, non-grid usage of stranded wind resources, funding wind projects, county commissioner issues, transmission and interconnection, and rural economic development. Another project is “Energy Facts and Figures” which provides high quality information to County Commissioners, local officials and economic development professionals about a renewable energy future that can feature large amounts of wind energy development, a substantial portion of it community owned. The Project develops materials to assist local decision makers and works to make connections between those officials, farm groups, the Wind Applications Center and the Kansas Energy Office. More information about these wind projects is on the web at <http://www.kansasruralcenter.org/wind.html>.

The Kansas Rural Center’s Clean Water Farms Project: Also, since 1995, The Kansas Rural Center has provided farmers and ranchers with information and technical assistance to improve the conservation performance of their operations through a Clean Water Farms Project. This project includes an environmental assessment process, the development of an action plan by the farmer or rancher, and monitoring of environmental improvements. The Project also provides cost share and technical assistance for establishing conservation practices. Farmers who receive the full \$5,000 limit are considered to have a “demonstration project” and the farmer will be asked to host a farm tour or share information via

workshops or other outreach avenues to other farmers. The Clean Water Farms Project also conducts groups workshops in which numerous people with knowledge about conservation practices and systems come together to work with a small groups of farmers and ranchers. For more information on this Clean Water Farms Project, see the website <http://www.kansasruralcenter.org/CWFP.htm>.

The Center for Rural Affairs: One of the first projects of the Center for Rural Affairs was a Small Farm Energy Project, a 3-year research and demonstration project on 48 farms in Cedar County Nebraska. The Project demonstrated the adoption of alternative energy technologies by small farms that in 1979 dollars saved an average of \$1,138 for each participating farm. Since 1993, the Center staff has included Martin Kleinschmit and other staff with combined expertise in renewable energy, energy conservation, and sustainable agricultural practices. The most recent event was the Center's hosting of Nebraska's first Renewable Energy Fair in Hartington NE held on September 18, 2008. The Center held workshops and demonstrations on the 2008 Farm Bill energy programs, energy conservation, small-scale wind turbines, Nebraska's C-BED Project (community-owned wind energy), solar collectors, photo voltaics, bio-fuels, methane, school wind projects, energy safety, and much more. In addition, Center energy staff emphasized that significant energy savings can be made on many farms and ranches through behavioral and management changes that do not involve large expenditures for new equipment but do result in significant energy conservation.

The National Center for Appropriate Technology (NCAT): Since 1987, an NCAT project – the Appropriate Technology Transfer to Rural Areas (ATTRA) – has offered no-cost technical assistance to farmers, ranchers and other people in rural areas on sustainable agriculture production, processing and marketing. The 2008 Farm Bill made ATTRA a permanent program. In addition, Congress gave ATTRA an express charge “to assist agricultural producers that are seeking information to (A) reduce input costs; (B) conserve energy resources; (C) diversify operations through new energy crops and energy generation facilities; and (D) expand markets for agricultural commodities produced by the producers by using practices that enhance the environment, natural resource base, and quality of life.”<sup>1</sup> These activities are not new to NCAT's work. Over the previous five years, NCAT has developed a new Farm Energy Area on the ATTRA website, [www.attra.ncat.org](http://www.attra.ncat.org), issued dozens of new energy-related publications, and hired additional NCAT staff with energy expertise. In the last year alone, NCAT has sponsored workshops on farm-scale biodiesel production that were attended by over 1,500 producers in twelve states. In addition, NCAT is currently engaged in a three-year project funded by USDA's Risk Management Project to improve the availability and usefulness of farm energy audits nationally.

**b. *Subsection 9007(b)(3) Selection Criteria and Subsection 9007(b)(4) Use of Grant Funds***

SAC recommends that in the selection criteria for energy audits and renewable energy assistance USDA should give a priority to projects that include farmer-to-farmer demonstration of energy efficiency improvements and renewable energy systems. These projects could include workshops and field days with farmers and ranchers who have used REAP grants and loans to improve their operations. We further recommend the REAP regulations make clear that the use of grant funds under Subsection 9007(b)(4) includes activities and opportunities for farmer-to-farmer information.

With regard to the selection criteria for “geographic scope” in Subsection 9007(b)(3)(B), SAC recommends that USDA give the highest priority to direct assistance provided by entities within a state or region to farmers or ranchers residing in the same state or region. A truly effective energy audit requires direct contact with the farmer, rancher, or rural business person on the ground where the energy savings are to be made. Web-based information, publications and other “remote” assistance to farmers and

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<sup>1</sup> 2008 Farm Bill, Title VI, § 6016.

ranchers on renewable energy technologies and resources can be useful tools for a grant project. But they should be backed up with workshops, demonstrations, and direct contact in settings where farmers, ranchers and rural business people have the opportunity and feel comfortable to ask questions about their own operations. The number of people served by a project is an important selection criterion but more important is whether the contact was effective and likely to increase the ability of the agricultural producers or small business owners to conserve energy and incorporate renewable energy technology into their businesses.

Leveraging of funds is a legitimate criterion for project selection, particularly if the leveraged funding involves increasing the conservation performance of a farm or ranch. For example, farmers and ranchers can receive Conservation Security Program payments, and may receive Conservation Stewardship Payments, for establishing on farm renewable energy systems. These systems must be compatible with the overall CSP goal of improving resources of concern. A proposal under Section 9007(b) to provide assistance to establish renewable energy technologies could be targeted to farmers in a state who are enrolled in CSP and have included renewable energy production in their CSP plans. In addition, many non-profit organizations have expertise, experience, and some funding sources for assisting farmers and ranchers with renewable energy production and could serve more farmers with additional assistance from USDA. SAC would be concerned, however, if USDA used “leveraging funding” to establish a high matching requirement above 25 percent of the costs of a grant. We also recommend that USDA expressly provide in regulations that a grant recipient can provide in-kind contributions to fulfill a matching requirement.

## **Section 9011: Biomass Crop Assistance Program (BCAP)**

### ***1. Recommended conservation and environmental measures for crop production and harvesting on BCAP acreage.***

SAC finds that it is critically important that the BCAP require a high standard of conservation and environmental performance for crop production and harvest on BCAP acreage. First, as noted in above in our General Comments, the nation’s agricultural resources have been targeted by the 2008 Farm Bill, the Renewable Fuel Standard (RFS) of the Energy Independence & Security Act of 2007, federal tax credits, and numerous state incentives as the base for producing an increasing percentage of the nation’s liquid transportation fuel. In addition, agricultural feedstocks such as switchgrass are envisioned as biomass for energy from burning and gasification operations. If agricultural feedstocks become a significant source of energy for the U.S., the pressure on our agricultural production resources, including soil and water quality, will intensify. This significantly increases the need for agricultural production with a higher level of conservation performance than conservation compliance, the “norm” we have currently have as for our nation’s agricultural conservation performance.

Congress also clearly recognized the importance of the conservation component of BCAP, with the inclusion of “the impact on soil, water, and related resources” among the selection criteria for participation in the program. The 2008 Farm Bill report includes the congressional intent that the BCAP wildlife-related concerns also be included in this priority. Further, the BCAP contracts must include “the implementation of (as determined by the Secretary) of a conservation plan or a forest stewardship plan or equivalent plan. The Managers’ summary also emphasizes that BCAP contracts include resource conservation requirements.

SAC recommends that in implementing BCAP the Farm Service Agency (FSA) work closely with NRCS in developing the conservation measures for crop production and harvesting on BCAP acreage. FSA and NRCS can look to the Conservation Stewardship Program as a model, with its emphasis on resources of concern and conservation planning for an agricultural production system. We urge USDA to give the

opportunity to enroll in the CSP to all farmers participating in a BCAP project who meet the threshold requirements for CSP participation. Farmers in BCAP projects who are not CSP eligible should be allowed the opportunity for automatic enrollment in EQIP in order to meet BCAP conservation requirements. This linkage between USDA conservation programs and BCAP projects will provide both conservation cost-share assistance and technical assistance to BCAP participants without increasing BCAP costs. It will help ensure that new bioenergy crops are developed and established in a manner that protects and conserves soil quality, water quality, wildlife and wildlife habitat, and other agricultural and natural resources.

Some of the groups commenting on BCAP have opined that it was an energy program, not a conservation program. But even if the clear farm bill legislative requirements for conservation measures on BCAP acreage did not apply, the BCAP should include conservation measures to meet the RFS of the Energy Independence & Security Act of 2007. The RFS is a major driver for the production of agricultural feedstocks for ethanol, biodiesel and other biofuels to be blended into gas and biodiesel. The RFS requires that renewable fuels must now be produced from renewable biomass harvested from land "cleared or cultivated" prior to December 17, 2007, the enactment date of the EISA. The RFS also requires that advanced biofuels must meet a threshold of 50% of the lifecycle green house gas (GHG) levels for gasoline and diesel fuel in 2005; biomass-based biodiesel must also meet this 50% lifecycle GHG level; and cellulosic biofuel produced from cellulose, hemicellulose or lignin must meet a 60 % lifecycle GHG threshold. The term 'lifecycle greenhouse gas emissions' means 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 EPA Administrator, related to the full fuel lifecycle. If a bioenergy facility intends to make biodiesel or ethanol eligible for the tax incentives provided by meeting the RFS requirements, the conservation standards for agricultural feedstock production in a BCAP project associated with that facility will have to meet both the restrictions on breaking out new land for cultivation and the RFS life cycle GHG levels thresholds.

Moreover, the BCAP is not merely a one-shot financial incentive for a group of biomass crop producers. Section 9011(c)(3)(B) requires that BCAP contracts include an agreement to make available to the USDA or an institution of higher education or other entity designated by the Secretary information that Secretary considers to be appropriate to promote the production of eligible crops. The BCAP should be administered to help develop basic information on the agronomic and conservation performance of numerous biomass production systems. The demonstration of strong conservation performance by particular biomass production systems could enhance public support for biomass energy production.

***Selection Criteria: Priority for BCAP projects with mixed native plantings.***

BCAP should provide the highest priority for projects involving the establishment of mixed native perennial plantings. Recently published research involving a 10-year study by Dave Tilman and colleagues showed that 16 native prairie species on average yielded 238 percent more biomass than land planted to a single species. Greater diversity increased carbon sequestration, provided more stable annual yields, and significantly reduced the need for pesticides, herbicides and fertilizer applications, especially nitrogen.<sup>2</sup> Prairie hay can be burned or gasified and research is underway on producing cellulosic ethanol from grass mixtures. In addition, mixed prairies provide high quality livestock grazing, which can be used for extra income for farmers and ranchers and as an additional management tool.

A recent article in the Land Stewardship Newsletter examines the costs and time to establish mixed prairie on previously cultivated land. Establishment on row cropped land is easiest, with more perennial

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<sup>2</sup> Tilman, D., J. Hill, & C. Lehman (2006) *Carbon-negative biofuels from low-input high-diversity grassland biomass*. 314 SCIENCE 1598-1600.

weed control needed initially in former pastureland. Although initial establishment costs run from \$300 to \$400 an acre, subsequent costs for maintenance are much lower with little need for replanting and, with good management, little need for inputs such as fertilizer. Some economic return from the prairie may be available within 3 years.<sup>3</sup>

The Tallgrass Prairie Center in Iowa is currently researching the effects of harvest frequency on prairie plots. Their work indicates that the multiple uses in rotation may result in the best economic return for farmers, with a prairie harvested for biomass one year and grazed the next. These multiple use prairies could be managed to make them more hospitable for prairie wildlife.

Taken together, this information indicates that mixed perennial prairie and grasslands grow well on relatively infertile soil and could be established on marginal crop land. Farmers with high quality cropland will likely not be induced to participate in BCAP without very high payments. A priority for BCAP projects that convert land in row crops to native perennial systems may provide significant amounts of biomass with relative low impacts, easily meet the GHG emission threshold of the RFS as row crop land is converted to perennial cropland, and overall exact relatively low costs to the program.

#### ***Selection Criteria: Projects with Annual Crops***

While SAC recommends that highest priority for BCAP projects with mixed native perennials, we also recommend that BCAP projects for annual crops be limited to annuals incorporated into existing row crop acreage to establish a resource conserving crop rotation. Incorporation of a crop such as camellina or a biodiesel producing legume could both provide feedstock for bioenergy and improve the overall conservation performance of BCAP acreage formerly planted in a monoculture annual crop or a simple crop rotation. BCAP should not be used to fund any projects involving continuous, monoculture production of annual crops.

***Selection Criteria: Opportunity to participate in local ownership of conversion facility.*** SAC urges USDA to give a high priority to BCAP projects involving bioenergy conversion facilities that provide an opportunity for local ownership, particularly ownership by the farmers providing agricultural feedstock. This criterion should also include projects that will result in greater energy self-sufficiency and the retention of wealth generated at the local and regional level. The history of energy production includes numerous examples of communities “mined” for local resources and left with wrecked ecosystems and little else. USDA and other federal and state agencies have promoted bioenergy as a part of a long-term rural development strategy. This will be true only if publicly funded incentives are targeted to projects that include local control and retention of wealth generated by project in the local community.

#### ***Additional Selection Criteria***

The BCAP program should not be used to fund only a few large agricultural projects involving large-scale monoculture production. Instead, it should be used to help solve the chicken and egg quandary facing bioenergy development. Bioenergy companies do not want to risk building a commercial bioenergy plant without assurance that there is a consistent and adequate supply of biomass. In turn, farmers, seed producers, custom harvesters and others do not want to try out a new crop in a new agricultural production system without assurance of a market for the new crop. In selecting BCAP projects, USDA should select an array of projects and focus on linking demonstration scale bioenergy plants with farmers willing to incorporate new bioenergy crops into existing systems, especially those that could achieve both conservation and economic benefits from the addition of crops.

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<sup>3</sup> Brian DeVore, *Plugging into the Prairie*, THE LAND STEWARDSHIP LETTER (SUMMER 2008) posted on the web at <http://www.landstewardshipproject.org/lsl/lspv26n2.pdf>.

## **BCAP Payments**

**Establishment Payments:** The BCAP provides reimbursement for up to 75% of establishment costs of eligible crops. SAC recommends that USDA provide the full 75% cost share only for the establishment of mixed native perennials.

**Annual Payments:** Annual payments should be relatively simple and predictable, based on a measure such as the rental rates for the Conservation Reserve Program. The intent of the 5-year contract term is to encourage farmers to try new crops that may need a few years to become established before providing any economic return. The best result is payments that are not so high as to induce farmers in high quality cropland for food production to switch to biomass crop production but to provide an incentive for farmers with marginal cropland or pastureland to participate in BCAP projects that may well have both increased conservation and economic benefits.

**Reduction in Payments:** SAC recommends that USDA impose only minimum reductions in contract payments, even when farmers gain economically from the crop. Farmers will be more willing to try out new crops in new cropping systems if there is a bottom line of economic return. There should be no penalty for sale of seed. Native perennial crops will need a ramp up in seed production, not penalties for those establishing the systems. Haying and grazing should not be penalized either unless it interferes with establishment of the crop for biomass production. Haying and grazing may be elements of a good conservation management system for some crops and should not be penalized. USDA should make any potential payment reductions clear and certain in the BCAP contract.

## **Collection, Harvest, Storage and Transportation**

SAC is very concerned that the financial incentive for collection, harvest, storage and transportation includes incentives to remove crop residues. Recent research by a team of USDA Agricultural Research Service scientists led by Wally Wilhelm, a scientist with the Agroecosystems Management Research Unit, Lincoln, NE has raised concerns about the use of crop residues for biomass. Research by this group indicated that the corn stover needed to replenish soil organic matter was greater than that required to control either water or wind erosion in the ten counties (in nine of the top eleven corn production states in the U.S.) investigated. This outcome emphasizes the need to further evaluate the validity of widely circulated estimates of U.S. cropland capacity to sustainably supply feedstock for the emerging cellulosic ethanol industry.

The team concluded that there is a critical need to gather additional high-quality replicated field data from multiple locations to confirm their calculations and to expand the computations to a broader range of cropping systems before major decisions are made about the percent of stover that can be designated for biomass energy production. In addition, they state that an extensive effort is needed to expand development of existing crops, discover and develop unconventional crops, and create and deploy advanced cropping systems that exploit the potential of all crops so that biomass production can be expanded to provide a sustainable supply of cellulosic feedstock without reducing soil organic matter, thus undermining the productive capacity of the soil.<sup>4</sup>

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<sup>4</sup> W. W. Wilhelm, Jane M. F. Johnson, Douglas L. Karlen & David T. Lightle, *Corn Stover to Sustain Soil Organic Carbon Further Constrains Biomass Supply*, 99 *Agronomy Journal* 165-1667 (2007). This research in the paper contributes to the USDA-ARS Renewable Energy Assessment Project (REAP) goals and was funded by the USDA-ARS and USDA-NRCS agencies.

SAC recommends that participants in this portion of the BCAP should also be required to meet sustainability standards, including an NRCS-approved conservation plan for soil, water, air and wildlife, or a Forest Stewardship plan to ensure harvest levels and practices are sustainable and protect soil, water, air and wildlife. Funding should not be provided for crop residue collection, unless there is research in the region establishing maximum levels of residues removal without degrading soil quality. Ideally, these payments should be limited to farmers participating in BCAP projects.

We thank you for the opportunity to provide USDA with these recommendations on implementation of the 2008 Farm Bill Energy Title programs. We look forward to additional opportunities to work with USDA, especially in implementation of the REAP and Biomass Crop Assistance Program.

Sincerely,

*Martha L. Noble*

Martha Noble  
Senior Policy Associate



# Sustainable Agriculture Coalition



## 2008 MEMBER ORGANIZATIONS

Agriculture and Land Based Training  
Association (ALBA)  
Salinas, California  
[www.albafarmers.org](http://www.albafarmers.org)

California Farmlink  
Sebastapol, California  
[www.californiafarmlink.org](http://www.californiafarmlink.org)

C.A.S.A. del Llano (Communities Assuring a  
Sustainable Agriculture)  
309 E. 6th Street  
Hereford, Texas 79045  
(806) 364-4445

Center for Rural Affairs  
Lyons, Nebraska  
[www.cfra.org](http://www.cfra.org)

Community Alliance with Family Farmers  
Davis, California  
[www.caff.org](http://www.caff.org)

Dakota Rural Action  
Brookings, South Dakota  
[www.dakotarural.org](http://www.dakotarural.org)

Delta Land and Community, Inc.  
[www.deltanetwork.org/ar/dlc.htm](http://www.deltanetwork.org/ar/dlc.htm)

Ecological Farming Association  
Watsonville, California  
[www.eco-farm.org](http://www.eco-farm.org)

Future Harvest/CASA (Chesapeake Alliance for  
Sustainable Agriculture)  
Stevensville, Maryland  
[www.futureharvestcasa.org](http://www.futureharvestcasa.org)

Illinois Stewardship Alliance  
Rochester, Illinois  
[www.illinoisstewardshipalliance.org](http://www.illinoisstewardshipalliance.org)

Institute for Agriculture and Trade Policy  
Minneapolis, Minnesota  
[www.iatp.org](http://www.iatp.org)

Iowa Environmental Council  
Des Moines, Iowa  
[www.iaenvironment.org](http://www.iaenvironment.org)

Iowa Natural Heritage Foundation  
Des Moines, Iowa  
[www.inhf.org](http://www.inhf.org)

Izaak Walton League  
St. Paul, Minnesota  
[www.iwla.org](http://www.iwla.org)

Kansas Rural Center  
Whiting, Kansas  
[www.kansasruralcenter.org](http://www.kansasruralcenter.org)

Kerr Center for Sustainable Agriculture  
Poteau, Oklahoma  
[www.kerrcenter.com](http://www.kerrcenter.com)

Land Stewardship Project  
White Bear Lake, Minnesota  
[www.landstewardshipproject.org](http://www.landstewardshipproject.org)

Michael Fields Agricultural Institute  
East Troy, Wisconsin  
[www.michaelfieldsagainst.org](http://www.michaelfieldsagainst.org)

Michigan Integrated Food and Farming System  
[www.miffs.org](http://www.miffs.org)

Michigan Land Use Institute,  
Traverse City, Michigan  
[www.mlui.org](http://www.mlui.org)

Midwest Organic and Sustainable Education  
Service (MOSES)  
Spring Valley, Wisconsin  
[www.mosesorganic.org](http://www.mosesorganic.org)

The Minnesota Project  
Canton, Minnesota  
[www.mnproject.org](http://www.mnproject.org)

National Catholic Rural Life Conference  
(NCRLC)  
Des Moines, Iowa  
[www.ncrlc.com](http://www.ncrlc.com)

National Center for Appropriate Technology  
Butte, Montana; Fayetteville, Arkansas; Davis,  
California  
[www.ncat.org](http://www.ncat.org)

Northern Plains Sustainable Agriculture Society  
Fullerton, North Dakota  
[www.npsas.org](http://www.npsas.org)

Ohio Ecological Food and Farm Association  
(OEFFA)  
Columbus, Ohio  
[www.oeffa.com](http://www.oeffa.com)

Organic Farming Research Foundation (OFRF)  
Santa Cruz, California  
[www.ofrf.org](http://www.ofrf.org)

Pennsylvania Association for Sustainable  
Agriculture  
Millheim, Pennsylvania  
[www.pasafarming.org](http://www.pasafarming.org)

Practical Farmers of Iowa  
Ames, Iowa  
[www.practicalfarmers.org](http://www.practicalfarmers.org)

Rural Advancement Foundation International,  
USA (RAFI-USA)  
Pittsboro, North Carolina  
[www.rafiusa.org](http://www.rafiusa.org)

Sierra Club Agriculture Committee  
[www.sierraclub.org](http://www.sierraclub.org)

Union of Concerned Scientists  
Food and Environment Program  
Washington D.C.  
[www.ucsusa.org](http://www.ucsusa.org)

Washington Sustainable Food and Farming  
Network (WSFFN)  
Mount Vernon, Washington; Cheney,  
Washington  
[www.wsffn.org](http://www.wsffn.org)



September 4, 2008

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin J. Robinson  
Room 4231  
1400 Independence Avenue, SW  
Washington, DC 20250

Dear Under Secretary Dorr:

Thank you for the opportunity to provide input into USDA's rulemaking process for the programs authorized under Title IX (energy title) in the Food, Conservation, and Energy Act of 2008.

I am writing today to transmit the energy title recommendations of the 25x'25 National Steering Committee. 25x'25 is a diverse alliance of agricultural, forestry, environmental, conservation and other organizations and businesses that are working collaboratively to advance the goal of securing 25 percent of the nation's energy needs from renewable sources by the year 2025. The 25x'25 goal has been endorsed by 750 partnering organizations, 30 Governors, 14 state legislatures and the U.S. Congress through Energy Security and Independence Act of 2007 (EISA) which was signed into law by President Bush on December 19, 2007.

As the 21<sup>st</sup> century unfolds, America has an opportunity to chart a new course for its energy future – one that uses our abundant natural renewable energy resources to steer us to new economic opportunities and jobs, more robust national security, and a cleaner, healthier environment. Our nation's farmers, ranchers and forest land owners have set a bold vision to provide solutions from the land to meet our energy needs. The right policy framework and programs are needed, however, to realize the vision.

The federal government, and USDA in particular, can play a key role in helping renewable energy and efficiency blossom in rural communities, and simultaneously help farmers, ranchers and forest land managers contribute to a cleaner, sustainable and secure energy future.

The 25x'25 National Steering Committee supports all of the energy programs authorized under Title IX of the Food, Conservation and Energy Act of 2008 and urges USDA to fully support the following program imperatives:

First, while we appreciate the complexity of the rulemaking process, we urge USDA to move expeditiously in developing and finalizing the rules that will guide the implementation of the programs authorized under Title IX. We appreciate USDA's early scheduling of today's listening session and we urge Department officials to fast track rulemaking for all Title IX programs.

Second, we strongly urge USDA to aggressively work within the federal budget process to ensure that programs authorized in the Food, Conservation and Energy Act of 2008 are fully funded. To deliver the economic, security, and environmental benefits of renewable energy to all Americans, the 25x'25 Alliance is proposing that the government increase funding for programs by \$13 billion annually and \$66 billion over the next five years. This taxpayer investment in renewable energy will yield substantial benefits for all Americans by putting the country on the path to create \$700 billion in new economic development, reducing dependence on imported oil by 10 percent, and cutting carbon dioxide emissions by 1 billion tons. The U.S. paid more than \$400 billion for imported oil in 2006. By investing a small fraction of that figure in renewable energy, we can reduce our dependence on oil, create new economic opportunities here at home, and significantly reduce greenhouse gas emissions.

Third, USDA should significantly expand its renewable energy research, development and deployment programs. Specifically, USDA should support a national goal for research, development, demonstration, and deployment of reducing the costs of renewable energy production by at least 45 percent by 2025. This goal is consistent with the National Renewable Energy Laboratory's current goals. Increasing funding for renewable energy RDD&D should focus on:

- Sustainably increasing agricultural and forestry crop energy yields while enhancing environmental benefits.
- Harvesting, storing, transporting, and utilizing biomass feedstocks.
- Improving cellulosic ethanol and other cellulosic biofuel processing pathways.
- Developing industrial, commercial, residential and other stationary applications for renewable energy.
- Lowering the costs of wind, solar, geothermal and other forms of renewable electricity.
- Developing small scale and distributed energy technologies and
- Producing supplementary biobased products that create additional value.

Finally, we encourage USDA to fully utilize the traditional wood using industry (such as sawmills, pulp mills, manufactured board companies, and others) in appropriate programs of Title IX. These companies look forward to joining USDA in development

of future bio-energy facilities, and urge USDA to select existing partners at such sites, while seeking out new wood using energy facilities in areas where wood fiber resources are underutilized. Furthermore, in order for the forestry industry to maximize participation in USDA bioenergy programs, the definition of eligible woody biomass needs to encompass biomass produced from across the entire forestry sector. Even though the Energy Security and Independence Act (EISA) of 2007 provides another definition of eligible biomass from wood for EPA –administered programs, the EISA definition excludes a significant portion of potential wood sources. We urge USDA to follow Congressional intent of the woody biomass definition as written in the Food, Conservation and Energy Act of 2008.

In addition to these overarching recommendations, the 25x'25 National Steering Committee offers the following comments on individual Title IX programs.

Section 9004: Repowering Assistance for Biorefineries:

Before USDA moves to implementation, we would like to receive clarification on the options that a Biorefinery has to finance its repowering project. 25x'25 partners are interested in learning if a Biorefinery can use outside financing to repower, and what, if any, are the rules and restrictions for entering an agreement with a renewable electricity source in order to repower a biorefinery.

Section 9005, Bioenergy Program for Advanced Biofuels:

25x'25's number one renewable fuel priority is to accelerate the commercial scale production of cellulosic and next generation biofuels. We support Section 9005, and encourage USDA to simplify and streamline program rules to get highest rate of participation from a variety of producers. Furthermore, we urge USDA to make payments to producers based on *ALL* gallons of biodiesel produced. The program should not tie higher level of payment to increased production, because it would put producers with consistent levels of production at a disadvantage.

Section 9011: Biomass Crop Assistance Program (BCAP):

25x'25 strongly supports the Biomass Crop Assistance Program. The program should provide transition payments to farmers, forest owners and ranchers for the conversion of land to energy crop production in preparation for future bioenergy operations. The program should require the establishment of perennial plant material such as switchgrass or short rotation trees and should provide annual payments for the establishment period of the crop. We recommend that the rules for this very important program set broad parameters for feedstock eligibility, allowing for experimentation with feedstocks of various types.

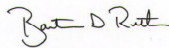
We also urge USDA to consider that BCAP is first and foremost an energy program, and while bioenergy feedstocks should be planted in a sustainable and environmentally-friendly manner, BCAP should not be burdened by so many additional requirements as to force low producer participation.

Section (c)(2)(A)(ii) currently requires “a letter of commitment from a biomass conversion facility.” Some producers are concerned with possible interpretations of a “letter of commitment.” If USDA gives preference to projects with a signed contract, this may lead to reduced participation. It may be difficult for producers to receive a letter of commitment from a biorefinery in advance. Determination of project eligibility should be made based on a case-by-case basis, and not solely rest on an existence of a letter of commitment.

Section (d) (2) (B) “Assistance with collection, harvest, storage and transportation:” Despite an abundance of biomass feedstock in this country, feedstocks are often located at significant distances from a refineries. Therefore, cost-effective storage and transportation of feedstock will be a challenge for producers. Hence, we see this section as a critical component to the effective operation of the BCAP program and urge that it be fully funded as is intended in the law.

Thank you for the opportunity to share our preliminary comments and recommendations. We look forward to submitting additional comments during the formal rule making process which will follow.

Sincerely,

A handwritten signature in cursive script that reads "Bart D. Ruth".

Bart Ruth  
25x'25 National Steering Committee Member



September 19, 2008

Submitted via email to: robin.robinson@wdc.usda.gov

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

**Re: Comments on the Section 9005, The Bioenergy Program for Advanced Biofuels**

Dear Under Secretary Dorr:

On behalf of the American Soybean Association (ASA), I am writing to share our thoughts on the implementation of the Farm Bill Section 9005, Bioenergy Program for Advanced Biofuels. We appreciate very much USDA Rural Development and Rural Business-Cooperative Service holding the public meeting on the Farm Bill Energy Title programs, including the Bioenergy Program for Advanced Biofuels. The ASA and National Biodiesel Board (NBB) worked together to actively support the inclusion of the Bioenergy Program in the Farm Bill reauthorization. As the primary proponents of the program, we worked with Congress throughout the process in support of its inclusion in the final Farm Bill.

**Background**

The U.S. biodiesel industry was in large part hatched from the work of soybean producer organizations. We continue to work closely together, and soybean producers and our rural communities have benefited tremendously from the new markets that have resulted from biodiesel production. We are very proud to be contributing to the effort to move our country toward energy independence, while boosting the economy in rural America and improving the environment.

While U.S. biodiesel is being produced from a diverse array of feedstocks, and more second generation feedstocks are in development, soybean oil is still used for the majority of U.S. biodiesel production. The premium is paid for soybean oil over other feedstocks because of the high quality of biodiesel it produces. This market has helped to reduce the historical surplus level of soybean oil stocks and replaced the markets lost as a result of the shift away from trans fats. In addition, the increased use of soybean oil for biodiesel has actually created increased supplies of soybean meal, a valuable food and feed commodity.

The biodiesel industry has grown tremendously over the past several years. Production has increased from 2 million gallons in 2000 to over 500 million gallons in 2008. While the industry has made tremendous strides in a short period, it is not without challenges. Due to feedstock costs, which can represent over 80% of biodiesel production input costs, many producers have been forced to suspend operations or operate at or below the margins. We are also facing a well publicized investment in

biodiesel production on the part of foreign countries, such as Argentina, which imposes Differential Export Taxes (DETs) as an export subsidy, and has an artificially lower cost of production. With the absence of tariff protection at the U.S. border and the subsidies and the artificial cost of production advantages enjoyed by countries such as Argentina, it is possible that foreign produced biodiesel could displace domestic biodiesel in our own market.

We believe that these challenges can and will be overcome. In the near term, feedstock costs have eased recently and USDA's most recent crop estimates for 2008 project one of the largest soybean crops in history. Beginning in 2009, there will be an expanded Renewable Fuel Standard (RFS-2) that includes a specific program for biomass-based diesel and other advanced biofuels. This RFS for biomass-based diesel begins at 500 million gallons in 2009 and ramps up to 1 billion gallons in 2012. Longer-term we expect to see continued advancements in agricultural productivity that will increase yields and efficiencies. There could also be developments in second generation feedstocks that could further expand biodiesel production capabilities.

### **Why the U.S. Biodiesel Industry Needs the Bioenergy Program**

To realize that future potential and meet the objectives of greater U.S. energy independence, rural economic development, and improving the environment, we need the Section 9005, Bioenergy Program for Advanced Biofuels to support current domestic biodiesel production. The Bioenergy Program could provide the support necessary to make U.S. biodiesel more competitive and ensure that the RFS-2 is filled with domestically produced biofuels.

As mentioned previously, Argentina is poised to substantially increase their biodiesel exports. According to a report on the sector by USDA, Argentina is expected to quadruple their production in 2008 and by the end of the decade will be making 10 times the amount it produced in 2007. Argentina's use of DETs provides an effective export subsidy to its biodiesel exports and this has contributed to the tremendous expansion of Argentine biodiesel capacity, production, and exports that is underway. In the past year Argentina raised their export tax on soyoil from 24% to 32%, while the export tax on soy based biodiesel was left at 5%, with a 2.5% tax credit.

Seed piracy and lack of intellectual property enforcement has allowed Argentine producers to utilize seed technologies for free while U.S. farmers are paying for these very same technologies. This seed piracy and lack of intellectual property enforcement allows Argentine soybeans and soybean oil to be produced and marketed at an artificially low cost. For example, U.S. soybean producers in 2008 paid approximately \$15 per 50 pound unit in royalty for the Roundup Ready technology on top of the price of seed and genetics. However, due to the lack of intellectual property enforcement in Argentina, Argentine growers generally aren't paying a dime for the Roundup Ready technology. At an average of 1.2 units/acre this translates into an \$18 per acre artificial advantage for Argentine soy production over U.S. production owing to seed piracy and the Argentine government's lack of intellectual property enforcement. At an average of 42 bushels per acre, that translates into a 43 cent per bushel or \$15.75 per metric ton price artificial production cost advantage for Argentine soybeans.

Again, the Bioenergy Program could provide the support necessary to make U.S. biodiesel more competitive and ensure that the new RFS-2 is filled with domestically produced biofuels, furthering our goals of energy independence.

**WASHINGTON OFFICE**                      **PHONE: 202.969.7040, FAX: 202.969.7036600**  
**PENNSYLVANIA AVENUE, S.E., STE. 320, WASHINGTON, DC 20003**  
[www.soygrowers.com](http://www.soygrowers.com)



## **Program Implementation**

There are several important implementation priorities for the biodiesel industry that we believe will help ensure that the Bioenergy Program is utilized to its fullest extent, and is consistent with the congressional intent and national goals of energy independence, economic development, and a cleaner environment.

### Timely Implementation

First, we urge you to move expeditiously to implement the Bioenergy Program and provide payments to U.S. biodiesel producers in fiscal year 2009. As you know, the program provides \$55 million in mandatory funding for Fiscal Year 2009. While the development of final program rules and regulations may be lengthy, we urge you to use your authority to ensure that the full \$55 million in program funding is delivered to eligible producers as early as possible in 2009.

### Payment on All Gallons of Eligible Biodiesel Produced

A top priority for U.S. biodiesel producers is to ensure that the Bioenergy Program payments are provided on all gallons of biodiesel produced. The previous Bioenergy Program was focused, by statute, on increased or incremental production. Based on extensive comments by biodiesel producers, USDA used its authority to provide some payments on base production. The statutory language for the Bioenergy Program was changed in this Farm Bill reauthorization to eliminate the reference to increased production and Report Language was included that indicates the intent of Congress that the program "...support existing advanced biofuel production, as well as encourage new production."

This principle is important to ensure competitive fairness among biodiesel producers that have maintained production during the industry's difficult economic times. If the program were to focus or provide a higher level of payment on increased production, it would provide a competitive advantage to new producers or those that re-start after having suspended production. Those who have maintained their biodiesel production should not be punished or put at a competitive disadvantage. We believe that providing payments on all gallons of biodiesel produced will also have an added benefit of simplifying the program rules.

### Payment Caps

We urge that any program or payment caps be implemented only insofar as they are necessary due to the total program funding and the number of eligible producers that apply. We urge you to ensure that all funds available for a given year are distributed to the eligible producers that apply in that year.

Thank you for your consideration of these comments. We look forward to working with you and your staff to implement the Bioenergy Program quickly and effectively. We also appreciate your interest in the long-term rural development and renewable energy interests of our nation and the economic viability of the biodiesel industry. We stand ready to work with you on any ideas or concerns that you may have to ensure U.S. soybean farmers and U.S. biodiesel producers continue to increase our contribution to the renewable energy, rural development, and environmental goals of the nation.

Sincerely,

John Hoffman  
President

Ms. Robinson:

As Title IX of the 2008 USDA Farm Bill is finalized, I would ask that the Department consider the following:

Section 9005, the BioEnergy Program for Advanced BioFuels, states that direct payments may be made to producers of advanced biofuels. I would request that the definition of advanced biofuels be clarified. If the intent of the definition is those fuels that are used as a substitute for fossil fuel use and are produced from renewable feedstocks, I would recommend that methane produced from anaerobic digestion of stillage flow from the ethanol process be defined as an advanced biofuel. This methane can be refined to natural gas pipeline standards, and therefore could be used as a substitute for natural gas to fuel the ethanol plant production or any other commercial natural gas requirements. That this methane is produced with the stillage stream from the ethanol process makes it renewable.

On the same topic but within a different section of the Farm Bill, Section 15321 references cellulosic biofuel producer credits. Within the same discussion points as referenced above, I recommend that this section 15321 also include methane from stillage as a cellulosic biofuel, and therefore be eligible for the producer credit.

Thank you,

Scott Blumhoefer  
Vice President  
Heartland Corn Products  
(507) 647-5000



September 19, 2008

Submitted via e-mail to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, Stop 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

Re: Comments on Section 9005, the Bioenergy Program for Advanced Biofuels

Dear Under Secretary Dorr:

On behalf of the National Sorghum Producers (NSP), we appreciate the USDA's continued support of the domestic production and use of renewable fuels, and we believe that sorghum will continue to be on the forefront of new, advanced biofuels because of its diverse feedstock qualities that allow it to fit into starch, sugar and biomass renewable fuels production schemes. Currently, 15% of all sorghum used domestically is process through an ethanol plant.

We applaud you for holding a public meeting and seeking public input on how to implement Title IX of the Food, Conservation and Energy Act of 2008 (Farm Bill). The Bioenergy Program for Advanced Biofuels has the potential to significantly impact ethanol production in the Sorghum Belt. We believe that an ethanol plant producing an advanced biofuel from sorghum should qualify for payments. The ethanol industry is the single most significant industry to impact the local prices paid to sorghum producers in years. Producers are consistently paid ten to fifteen cents a bushel higher price when an ethanol plant starts competing for sorghum.

The National Sorghum Producers is a national commodity organization that represents sorghum farmers throughout the United States by promoting research, education on sorghum issues, and working on legislative issue like this. We have been actively involved in supporting research on sorghum for use as an advanced biofuel and for educating not only private industry, but the federal government on the benefits of sorghum within this industry and the diverse nature of this crop that can play a vital role in our nations move towards a more secure and independent source of fuel.

We encourage USDA to implement all of its Energy Title programs in a consistent and uniform manner with biofuels programs authorized in the Energy Independence and Security Act (EISA) of 2007 (P.L. 110-140). Consistent implementation will simplify procedures for use of USDA's



and the Department of Energy's renewable fuels programs. We believe uniformity should be a top priority for implementation of the Energy Title.

As you are aware, Section 9001 under Title IX defines "advanced biofuels" as the following:

*"SEC. 9001. DEFINITIONS.*

*IN GENERAL.—The term 'advanced biofuel' means fuel derived from renewable biomass other than corn kernel starch.*

*"(B) INCLUSIONS.—Subject to subparagraph (A), the term 'advanced biofuel' includes—*

*"(i) biofuel derived from cellulose, hemicellulose, or lignin;*

*"(ii) biofuel derived from sugar and starch (other than ethanol derived from corn kernel starch);*

*"(iii) biofuel derived from waste material, including crop residue, other vegetative waste material, animal*

*waste, food waste, and yard waste;*

*"(iv) diesel-equivalent fuel derived from renewable biomass, including vegetable oil and animal fat;*

*"(v) biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass;*

*"(vi) butanol or other alcohols produced through the conversion of organic matter from renewable biomass; and*

*"(vii) other fuel derived from cellulosic biomass.*

Based on this definition, all sorghums clearly meet the definition for "advanced biofuels." This means grain sorghum, forage sorghums, silage sorghum, hay sorghums (which include things such as sudangrass and sorghum x sudangrass hybrids), sweet sorghums, and high biomass or energy sorghums. We believe that all biofuel facilities producing an advanced biofuel from any of the previously mentioned sorghums should qualify for the program.

We strongly believe, as the National Biodiesel Board said in their testimony at USDA, which all producers of advanced biofuels should qualify for the same payment rate. Payments for each gallon of production should be the same for every type of advanced biofuels. We also encourage USDA to develop a program that pays biofuel producers if the plant produced ethanol from sorghum for three month and then switched to corn for the remaining nine months of the production year.

This would also encourage ethanol plants to diversify their feedstocks and not rely on a single source for their feedstock needs. Several renewable plants are working to integrate starch based technologies with cellulosic technologies and implementation of this program would assist in achieving this.



Payments to producers of advanced biofuels would help support a stable and expanding production base in the semi-arid regions of the US, also known as the sorghum belt. Sorghum's qualification for payment in this program helps develop a second, starched-based feedstock that would help expand the ethanol industry outside of the Corn Belt. We need to diversify and produce locally grown feedstock, rather than shipping starch from other parts of the country to meet the needs of our current ethanol infrastructure. Payments under this program would also provide incentives to grow sorghum in the semi-arid regions of the US, rather than encouraging the use of other high water use crops. As you are aware, sorghum is one of the most drought tolerant crops grown in the world and it plays an important role in the rural economy of the semi-arid plains.

In the Joint Explanatory Statement of the Committee of Conference, Congress listed three criteria to base payment on, quantity and duration of production, net non-renewable energy content and other appropriate factors as determined by the Secretary. The sorghum industry believes that the Secretary should include water consumption to produce a feedstock as one of those criteria for payments.

Again, we thank you for this opportunity to submit comments in relationship to Section 9005 of the Farm Bill and look forward to our continued working relationship with your Department as we work to educate the industry about the benefits of sorghum as an advanced biofuel. Please feel free to contact me or the office if we can be of further assistance.

Sincerely,

A handwritten signature in black ink that reads "Toby Bostwick". The signature is written in a cursive style and is placed on a light gray rectangular background.

Toby Bostwick  
Chair  
National Sorghum Producers



National  
Biodiesel  
Board  
1331  
Pennsylvania  
Ave., NW, Suite  
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September 4, 2008

Submitted via email to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

Re: Comments on Section 9005, the Bioenergy Program for Advanced Biofuels

Dear Under Secretary Dorr:

On behalf of the National Biodiesel Board (NBB), I appreciate the U.S. Department of Agriculture's (USDA) continued support of the domestic production and use of biofuels. We applaud you for holding this meeting and for seeking public input on how to implement Title IX of the Food, Conservation and Energy Act of 2008 (Farm Bill). The following comments will focus on Section 9005 of the Farm Bill, the Bioenergy Program for Advanced Biofuels.

NBB is the national trade association representing the biodiesel industry as the coordinating body for research and development in the United States. NBB also works closely with the American Soybean Association and the National Renderer's Association, just to name a few, on issues relating to feedstock development.

Section 9005, the Bioenergy Program for Advanced Biofuels, provides \$55 million in FY 2009; \$55 million in FY 2010; \$85 million in FY 2011; and \$105 million in FY 2012 to make payments to eligible producers to support and ensure an expanding production of advanced biofuels. The NBB's diverse membership - feedstock providers; large and small producers; single and multi-feedstock producers - is in agreement as to the best way to implement this program. Specifically, industry's goals for the program are the following:

- A single program for all domestic biodiesel producers where all producers are treated alike;
- where the payment on each gallon of production is exactly the same for every producer; and
- that is measured by a gallon of biodiesel or "advanced biofuel".

Industry strongly encourages USDA to use its authority to implement the program during FY 2009 in a manner that makes program payments available retroactive to October 1, 2008, as envisioned in statute. In addition, we respectfully ask that a final rule be implemented in a timely manner to provide certainty and stability to eligible producers.

NBB has historically worked cooperatively with USDA to administer and implement a similar program from the 2002 Farm Bill, which was named the Commodity Credit Corporation (CCC) Bioenergy Program. The regulations for the previously authorized program can be found at 7 CFR Part 1424. In general, the program was administered efficiently and effectively and we would encourage a similar program where payments are made to biodiesel producers on a quarterly basis.

To be specific, we recommend modifications to Section 1424.7 or the "Gross Payable Units" section of the old rule, which created a two-tiered payment system for biodiesel producers "additional production payments" (APP) and "base production payments" (BPP).

Under the new rule, industry encourages USDA to create a "one-payment system" that is measured on a gallon of biodiesel or "advanced biofuels" production. The payment should be the same for every producer on each gallon of production, regardless of feedstock used to produce the fuel. This change is not only consistent with sound energy policy, it has the potential to simplify administration of the program for both USDA and eligible producers that opt to participate in the program.

Consistent with our view on a "one-payment system," we encourage you to refer to the following report language from the recently enacted Farm Bill which states:

*The Conference substitute directs the Secretary to make payments to producers of advanced biofuels to support a stable and expanding production base. The payments are to be based on the quantity and duration of production, the net non-renewable energy content of the advanced biofuel, and other factors as determined by the Secretary. (Section 9001, new section 9005 of FSR1A)*

*It is the intent of the Managers that the Secretary support existing advanced biofuel production, as well as encourage new production.*

Industry views the Bioenergy Program for Advanced Biofuels as an important component of a larger federal policy framework that will help the U.S. biodiesel industry play a constructive role in the nation's overall energy strategy. If the "one payment system" we are recommending is ultimately adopted by USDA, the program will help make domestically produced biodiesel more price competitive in the marketplace. Feedstock costs make up approximately 80% of production costs. Over the past year, feedstock costs have doubled, reaching record highs and making it difficult to economically produce the fuel. A Bioenergy Program for Advanced Biofuels that provides payment on all gallons of production will help all U.S. biodiesel producers offset these rising input costs and displace petroleum with clean-burning, domestically produced biodiesel.

The U.S. biodiesel industry has made great strides over the past few years. Production has increased from 25 million gallons in 2004 to approximately 500 million gallons of fuel in

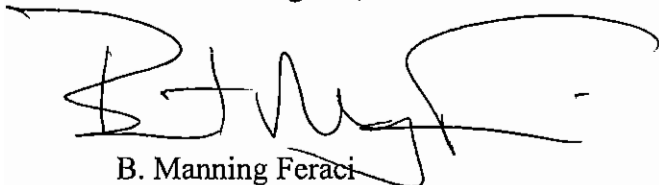
2007. In addition, industry led efforts to dramatically improve fuel quality and penetrate existing fuel infrastructure have increased consumer acceptance of biodiesel.

With that said, there are challenges facing the industry as it moves forward, such as feedstock development. From the standpoint of energy security, climate change, and green job creation, there remains a compelling public policy case for continued support of the biodiesel industry. The Bioenergy Program for Advanced Biofuels in and of itself is not the silver bullet that will address the sum total of the challenges facing the biodiesel industry. However, as part of a larger biofuels policy, it holds great potential to help make U.S. biodiesel producers more competitive in the low margin, high volume fuels marketplace. Thus, a program that is structured to provide support on all gallons of production can provide a substantial benefit to industry.

Finally, we look forward to working with you on the Biodiesel Education Program which we have historically partnered with you on and would encourage you to allow us to do so again.

Again, thank you for your continued support of biofuels and your willingness to seek the input of industry on the Bioenergy Program for Advanced Biofuels. Please do not hesitate to contact me if I can be of further assistance on this matter.

With Best Regards,

A handwritten signature in black ink, appearing to read "B. Manning Feraci". The signature is stylized with a large, sweeping initial "B" and a long, horizontal flourish extending to the right.

B. Manning Feraci  
Vice President of Federal Affairs  
National Biodiesel Board



**9005**

1. Rebate on biomass fuel produced
2. Potential payees—local and regional bio-refineries, size-sales of 20 million or less
3. A.S.T.M. standards –Duration of production—20 years
4. Net-non renewable energy-Carbon utilized to make biomass fuels
5. A.S.T.M. standards
6. Size should have no bearing
7. All production
8. Debt to asset ratio
9. Yes—all of them
10. No
11. No



September 4, 2008

Submitted via email to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

Re: Comments on the Section 9005, Bioenergy Program for Advanced Biofuels

Dear Assistant Secretary Dorr:

Biofuels are an important segment of any future energy policy of the United States. I appreciate your interest and that of this panel in holding a public meeting to further discuss the benefits that renewable energy that is produced by rural America can have for our entire country and how to best implement the new bioenergy program passed by the 110<sup>th</sup> Congress as outlined in section 9005.

My name is James Conway and I am Vice President of Sales and Marketing for Griffin Industries. I also currently serve as Secretary of the National Biodiesel Board.

Griffin Industries is a family owned company located in Northern Kentucky that has been in business for over 65 years. We have over 1400 employees that operate 23 production plants in 15 States. Our plants are mostly in rural communities like Dublin, Ga. , Russellville, Ky. , Bastrop, Tx. And Hampton, Fl. All of our operations recycle food wastes. We do rendering, collection and processing of bakery waste as well as collection and processing of waste cooking oil from restaurants. Last year we processed over 1 million tons of products that might ordinarily have gone to landfills.

Since 1998 we have operated a biodiesel production plant full time. In fact, we were the fourth biodiesel production plant opened in the United States. The head of the Griffin family saw back in the 1990's how important biofuels would be to the long term energy security of this country. He invested family money in building a plant to produce biodiesel which at that time was a product that very few had even heard of.

During those early years of production our company operated this biodiesel plant at an economic loss. But we were committed to the concept of renewable fuels and dedicated ourselves to persevering and

in maintaining our production. Part of that production went to fuel our fleet of over 600 power truck units.

The Farm Bill of 2002 which created the first Commodity Credit Corporation's Bioenergy Program was a valuable asset in our effort to continue production and see the industry grow to a point where today there are over 170 production facilities in existence. I believe the Bioenergy Program was a vital springboard in that story of growth.

I am very encouraged that Congress had the foresight to renew this program with the new Farm Bill. I am also thankful that congress had the wisdom to give USDA the direction to formulate the rules and administration of this program. There are some elements of the old program that I feel need to be addressed to make it even more relevant and effective in supporting a continued development of Advanced biofuels of which Biodiesel is the leading producer.

I would encourage the Department to formulate a payment plan that treats and pays all gallons produced equally. I emphasize gallons produced and not pounds of feedstock used. The biodiesel industry must have equal treatment of all produced gallons to insure fair and sustained growth of both the industry and its participants.

Higher feedstock prices have affected all producers equally and this program is designed to offer some relief from these costs. While we want to encourage new and expanded production we cannot exclude older and established producers from this assistance. By treating all production equally this program will insure the optimum return of the program to the energy consuming public.

I would also encourage the Department to insure that the entire amount funded, \$55 million for 2009, be fully disbursed to the advanced biofuels producing industries. If the supplemental \$25 million is funded it too should be disbursed based on gallons produced. Hopefully this can be made available for gallons produced beginning Oct. 1, 2008 or a least made retroactive to that date.

Contrary to the early formats contained in the old bioenergy program it is important that all feedstocks be treated equally with this program. As production has increased and as further increases are envisioned it is paramount that all feedstocks capable of producing quality biodiesel should be utilized. The cost of various feedstocks are closely related. As one goes up in price they all tend to follow. All producers should be afforded the opportunity to access the feedstocks which have the most favorable logistic availability to them without regard to how they may be treated by this program. Uniformity of treatment of all feedstocks is imperative to the success of this important Government program.

I wish to again thank Secretary Dorr and the entire committee for the opportunity to share these comments with you. I know your task is a huge one but I am confident you will produce a program that is both fair to all producers and effective in promoting energy security for the American public.

If I can answer any questions or provide more information please feel free to contact me at 859-572-2582 or at [jconway@griffinind.com](mailto:jconway@griffinind.com). Thank you.

Respectfully submitted,

James L. Conway  
Vice President Sales and Marketing  
Griffin Industries, Inc.

Michael J. McAdams  
Executive Director  
703-891-4816



September 19, 2008

Via Email to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Robin Roy Robinson  
Special Assistant to the Administrator  
USDA Rural Business and Cooperative Programs  
1400 Independence Avenue, SW (Rm-4231)  
Washington, DC 20250

Re: Comments on Title IX, USDA Energy Authorities of the Food, Conservation and Energy Act of 2008

Dear Ms. Robinson:

I am writing to you on behalf of the member companies of the Advanced Biofuels Coalition (Coalition) to indicate our strong support of the Department of Agriculture's efforts to promote the development of next generation biofuels needed for our country's energy supply and security. These comments are submitted in the context of the Department's energy authorities under Title IX of the *Food, Conservation and Energy Act of 2008* (farm bill).

The USDA BioEnergy Program was created under the 2002 farm bill to support first-generation domestic biofuel production. Successful use of funding under this program helped provide and ensure financing of many first-generation biorefineries. As a result, domestic production capacity of these first generation biorefineries expanded significantly and is helping to readily meet federal requirements under the Renewable Fuels Standard program established under the 2005, and subsequent 2007 energy policy legislation.

Currently, our country imports about 60% of its crude oil, at a cost of more than \$1 billion per day. The energy authorities given to the Department under the 2008 farm bill can help enable the continued advancement of nonpetroleum-based fuels through a broad set of technology development, demonstration activities and commercial scale grant and loan guarantee projects. The BioEnergy Program under the new farm bill serves as an important incentive for the targeted development and construction of advanced biofuels facilities. Just as Congress looks for continued success, our Coalition sees the BioEnergy Program playing a critical role once again to help build advanced biofuels production capacity in the United States. This new, expanded capacity is crucial to ensure that we achieve the goals set by energy policy.

One of the most promising options to address our country's fuel needs is displacing

Ms. R. Robinson  
USDA Rural Business and Cooperative Programs  
September 19, 2008  
Page 2

petroleum-based fuels with next generation advanced biofuels derived from renewable resources. These next generation biofuels include products such as cellulosic-based ethanol, renewable butanol, renewable diesel fuel, synthetic renewable and biodiesel fuel, algae-derived biofuels, microbial-derived hydrocarbon fuels, catalytically-produced renewable hydrocarbon fuels, and other renewables-based gasoline, diesel, jet and home heating fuel substitutes.

The Department's programs under Title IX to promote the development and deployment of advanced biofuels should ensure that full and equitable consideration be given to this range of next generation renewable fuels. Although previous initiatives have generally focused on conventional biofuels and feedstocks, the Coalition urges the Department to take advantage of new innovations on process technologies and feedstock sources to produce advanced biofuels. The development and promotion of multiple options for renewable fuels allows us to maximize the advantages for these fuels while mitigating challenges of their use.

Many of the next generation biofuels are more compatible with our country's existing distribution infrastructure, consequently their transportation and distribution costs could be much lower. Supporting these next generation biofuels in future demonstrations and commercial scale-up projects can increase the likelihood that both the best technologies and best fuels advance to full deployment and production.

The Advanced Biofuels Coalition represents a wide range of biofuels and technology companies primarily engaged in making next generation of biomass-based, renewable and advanced fuels. Our companies offer tremendous opportunity to bring significant volume and high quality fuels to the marketplace in the near future. We firmly urge the USDA to support a broad portfolio of advanced biofuels in its development, demonstration and commercial scale-up activities, bioenergy payments and biorefinery assistance projects, and rural energy and business development programs. The BioEnergy Program funding provided by the 2008 farm bill can do what it was intended to do – help expand new construction of domestic advanced biofuels refineries.

We look forward to upcoming announcements by the Department seeking solicitations for advanced biofuels initiatives under Title IX of the 2008 farm bill.

Sincerely,

Michael J. McAdams  
Executive Director



## *NATIONAL RENDERERS ASSOCIATION, Inc.*

801 North Fairfax Street • Suite 205 • Alexandria, Virginia 22314

Tel: (703) 683-0155 • Fax: (703) 683-2626

Offices: Washington, D.C. • London • Hong Kong • Mexico

September 4, 2008

Submitted via email to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

Dear Secretary Dorr:

The National Renderers Association (NRA) commends you and your office for convening today's public meeting on the renewable energy provisions of the 2008 Farm Bill. NRA looks forward to working with you and your agency staffs – as we have in the past – on steps to be taken to implement the various provisions of the Farm Bill energy title, with particular interest in Sec. 9005, "The Bioenergy Program for Advanced Fuels."

NRA is the international trade association for the independent rendering industry, an industry which safely and efficiently recycles animal and poultry by-products, as well as recycled cooking oils and greases, into valuable ingredients for the animal feed, pet food, chemical, cosmetic and energy industries. Many of NRA's member companies are actively engaged in the production of biodiesel or are poised to enter the biodiesel market. Animal-based biodiesel – that which is refined from non-edible animal byproducts and restaurant oils and grease – is perhaps the only truly recycled, renewable and sustainable alternative fuel.

With feedstock costs comprising up to 80% of the cost of producing biodiesel and given that over the past 12 months, feedstock costs have, in some cases, more than doubled, the Bioenergy Program for Advanced Fuels will be important in controlling biodiesel production costs by offsetting advancing feedstock prices. At the same time, targeting U.S.-produced biodiesel maintains competitiveness with imported biofuels, fuels with access to U.S. programs and fuels generally receiving domestic incentives.

From its inception as an administrative program designed to provide incentives and assistance to start-up biomass fuel production, what was previously called the "CCC Bioenergy Program" has provided important support to start-up biodiesel companies, including several NRA member companies. NRA appreciates the cooperation of your agencies in facilitating the broadening of

the program over time, as well as your actions to ensure to the extent possible the fair and equitable treatment of all qualifying biofuels regardless of feedstock.

We share with our colleagues in the American Soybean Assn. and the National Biodiesel Board the goal of seeing a bioenergy program implemented at USDA that is equitable – treating all domestic producers, whether start-up operations or existing companies, the same – and where there is no difference in qualifying payments on a per-gallon basis to each producer based upon the feedstock used to produce the biodiesel.

NRA recommends the following steps be taken in implementing the Bioenergy Program for Advanced Fuels:

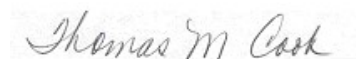
- The program should be in place by the end of calendar 2008 so that it benefits from FY2009 funding as authorized in the 2008 Farm Bill;
- Payments should be based on a gallon of biodiesel or “advanced fuel.”
- We encourage implementation of a retroactive payment scheme recognizing program participation as of Oct. 1, 2008;
- Payments should be made to producers on a quarterly basis, similar to the CCC Bioenergy Program through changes to Sec. 1424.7 (“gross payable units”) that would create a single payment system calculated on a gallon of biodiesel produced rather than the previous two-tier system.
- There should be no payment differences based upon the feedstock used to produce the biodiesel.

NRA views the Bioenergy Program for Advanced Fuels as helping create incentives to fully utilize domestic biodiesel – consistently produced – at a time when biodiesel is significantly underutilized by the petroleum industry. Currently, the industry is producing at about 25% of capacity and the program will help increase demand.

We look forward to working with the Rural Business-Cooperative Service on implementation of the Bioenergy Program for Advanced Fuels, as well as in the Biodiesel Education Program, continuing a long history of productive partnership between NRA and USDA on alternative energy development.

Thank you for your consideration of NRA’s views. Please feel free to contact me at any time should you or your staff have questions. I can be contacted at 703-683-4983, or by email at [tcook@nationalrenderers.com](mailto:tcook@nationalrenderers.com).

Sincerely,



Thomas M. Cook, President



September 19, 2008

Submitted via e-mail to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, Stop 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

Re: Comments on Section 9005, the Bioenergy Program for Advanced Biofuels

Dear Under Secretary Dorr:

On behalf of Levelland Hockley County Ethanol, LLC, we appreciate the USDA's continued support of the domestic production and use of renewable fuels. As a user of sorghum in our ethanol facility, we believe that sorghum will continue to be on the forefront of new, advanced biofuels because of its diverse feedstock qualities. Sorghum fits into starch, sugar and biomass renewable fuels production schemes.

LHCE is a 40 million gallon per year ethanol plant in Levelland TX. Our total feedstock is made up of local Sorghum. Using Sorghum also allow us to create a 41% protein feed that is consumed 100% locally. To protect the environment we are in the process of capping our CO2 and use gray water from the City of Levelland to produce our ethanol. Because of this plant, we are starting to see E-10 offered to consumers in this area of Texas for the very first time.

We applaud you for holding a public meeting and seeking public input on how to implement Title IX of the Food, Conservation and Energy Act of 2008 (Farm Bill). The Bioenergy Program for Advanced Biofuels has the potential to significantly impact ethanol production in the Sorghum Belt. We believe that an ethanol plant producing an advanced biofuel from sorghum should qualify for payments under Section 9005 of the Farm Bill.

We encourage USDA to implement all of its Energy Title programs in a consistent and uniform manner with biofuels programs authorized in the Energy Independence and Security Act (EISA) of 2007 (P.L. 110-140). Consistent implementation will simplify procedures for use of USDA's and the Department of Energy's renewable fuels programs. We believe uniformity should be a top priority for implementation of the Energy Title.

As you are aware, Section 9001 under Title IX defines "advanced biofuels" as the following:

*"SEC. 9001. DEFINITIONS.*

*IN GENERAL.—The term 'advanced biofuel' means fuel derived from renewable biomass other than corn kernel starch.*

*"(B) INCLUSIONS.—Subject to subparagraph (A), the term 'advanced biofuel' includes—*

*"(i) biofuel derived from cellulose, hemicellulose, or lignin;*

*"(ii) biofuel derived from sugar and starch (other than ethanol derived from corn kernel starch);*

*"(iii) biofuel derived from waste material, including crop residue, other vegetative waste material, animal*


*waste, food waste, and yard waste;*

*“(iv) diesel-equivalent fuel derived from renewable biomass, including vegetable oil and animal fat;*  
*“(v) biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass;*  
*“(vi) butanol or other alcohols produced through the conversion of organic matter from renewable biomass; and*  
*“(vii) other fuel derived from cellulosic biomass.*

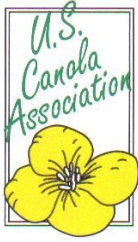
Based on this definition, all sorghums clearly meet the definition for “advanced biofuels.” This means grain sorghum, forage sorghums, silage sorghum, hay sorghums (which include crops such as sudangrass and sorghum x sudangrass hybrids), sweet sorghums, and high biomass or energy sorghums. We believe that all biofuel facilities producing an advanced biofuel from any of the previously mentioned sorghums should qualify for the program and that producers of advanced biofuels made from sorghum should qualify for the same payment rate as other advanced biofuels. Payments for each gallon of production should be the same for every type of advanced biofuels. We also encourage USDA to develop a program that pays biofuel producers if the plant produced ethanol from sorghum for three months and then switched to corn for the remaining nine months of the production year.

Again, we thank you for this opportunity to submit comments in relationship to Section 9005 of the Farm Bill. Please feel free to contact me or the office if we can be of further assistance.

Sincerely,



Sam J Sacco  
General Manager  
LHCE



U.S. Canola Association  
Suite 320  
600 Pennsylvania Ave. S.E.  
Washington, DC 20003

Tel: 202/969-8113  
Fax: 202/969-7036

September 19, 2008

Submitted via email to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

Re: Comments on the Section 9005, The Bioenergy Program for Advanced Biofuels

Dear Under Secretary Dorr:

On behalf of the U.S. Canola Association (USCA), I am writing to share our thoughts on the implementation of the Farm Bill Section 9005, Bioenergy Program for Advanced Biofuels. We appreciate very much USDA Rural Development and Rural Business-Cooperative Service holding the public meeting on the Farm Bill Energy Title programs, including the Bioenergy Program for Advanced Biofuels.

### **Background**

Canola producers have benefited from the new markets that have resulted from biodiesel production. We are very proud to be contributing to the effort to move our country toward energy independence, while boosting the economy in rural America and improving the environment.

Canola has emerged as an important oilseed crop in the northern region of the U.S. in the last decade. Canola production has increased from approximately 100,000 acres in 1996 to over 1 million acres today. This equates to approximately 700,000 tons of canola.

The same attributes that make canola oil a healthy food also make it an ideal feedstock for biodiesel. Canola based biodiesel has much better cold flow properties than biodiesel made from higher saturated fat oils. Other advantages of canola are that it produces a biodiesel with a higher cetane number than other feedstocks (which results in more energy per gallon) and it produces a very high amount of oil per acre.

One of the largest biodiesel production plants in the U.S. now utilizes canola from North Dakota. The use of canola for biodiesel production has greatly increased the demand for canola from the northern region of the U.S., resulting in improved prices for growers.

Research on new canola varieties ideally suited to biodiesel production is underway in the U.S. at several research centers in North Dakota, Idaho and Montana. In North Dakota, over 40 different lines of canola are being tested which may potentially deliver higher yields and higher oil content. Research in specific fatty acid profiles also started in 2006 under technology initiatives to foster the growth of biodiesel production in the region.

The state of North Dakota has also initiated a program to improve the quality of the region's canola crop. Recently, North Dakota State University was granted \$2 million for a Center of Excellence Program for Oilseeds. This program is matched by approximately \$8 million from private sector participation. The program will involve the breeding and development of canola varieties that will increase the profitability of biodiesel production from canola.

The northern region of the U.S. has ample room in the crop rotations to accommodate increased acreage of canola needed to supply the growing biodiesel sector. In North Dakota alone, canola acreage could increase to approximately 3.5 – 4 million acres based on a four-year rotation. Shorter rotations could allow for even more canola acreage. This illustrates the huge potential of canola as a biodiesel feedstock in this region.

Biodiesel offers great promise not only to the canola industry, but to the entire global vegetable oil complex in reducing our dependence on petroleum supplies while improving the profitability of farmers.

The biodiesel industry has grown tremendously over the past several years. Production has increased from 2 million gallons in 2000 to over 500 million gallons in 2008. While the industry has made tremendous strides in a short period, it is not without challenges. Due to feedstock costs, which can represent 80% of biodiesel production input costs, many producers have been forced to suspend operations or operate at or below the margins. The industry is also facing a well publicized investment in biodiesel production on the part of foreign countries, such as Argentina, which imposes Differential Export Taxes (DETs) as an export subsidy, and has an artificially lower cost of production. With the absence of tariff protection at the U.S. border and the subsidies and the artificial cost of production advantages enjoyed by countries such as Argentina, it is possible that foreign produced biodiesel could displace domestic biodiesel in the U.S. market.

We believe that these challenges can and will be overcome. Beginning in 2009, there will be an expanded Renewable Fuel Standard (RFS-2) that includes a specific program for biomass-based diesel and other advanced biofuels. This RFS for biomass-based diesel begins at 500 million gallons in 2009 and ramps up to 1 billion gallons in 2012. Longer-term we expect to see continued advancements in agricultural productivity that

will increase yields and efficiencies. There could also be developments in second generation feedstocks that could further expand biodiesel production capabilities.

### **Why the U.S. Biodiesel Industry Needs the Bioenergy Program**

To realize that future potential and meet the objectives of greater U.S. energy independence, rural economic development, and improving the environment, we need the Section 9005, Bioenergy Program for Advanced Biofuels to support current domestic biodiesel production. The Bioenergy Program could provide the support necessary to make U.S. biodiesel more competitive and ensure that the RFS-2 is filled with domestically produced biofuels.

### **Program Implementation**

There are several important implementation priorities for the biodiesel industry that we believe will help ensure that the Bioenergy Program is utilized to its fullest extent, and is consistent with the congressional intent and national goals of energy independence, economic development, and a cleaner environment.

#### **Timely Implementation**

First, we urge you to move expeditiously to implement the Bioenergy Program and provide payments to U.S. biodiesel producers in fiscal year 2009. As you know, the program provides \$55 million in mandatory funding for Fiscal Year 2009. While the development of final program rules and regulations may be lengthy, we urge you to use your authority to ensure that the full \$55 million in program funding is delivered to eligible producers as early as possible in 2009.

#### **Payment on All Gallons of Eligible Biodiesel Produced**

A top priority for U.S. biodiesel producers is to ensure that the Bioenergy Program payments are provided on *all gallons* of biodiesel produced. The previous Bioenergy Program was focused, by statute, on increased or incremental production. Based on extensive comments by biodiesel producers, USDA used its authority to provide some payments on base production. The statutory language for the Bioenergy Program was changed in this Farm Bill reauthorization to eliminate the reference to increased production and Report Language was included that indicates the intent of Congress that the program "...support existing advanced biofuel production, as well as encourage new production."

This principle is important to ensure competitive fairness among biodiesel producers that have maintained production during the industry's difficult economic times. If the program were to focus or provide a higher level of payment on increased production, it would provide a competitive advantage to new producers or those that re-start after having suspended production. Those who have maintained their biodiesel production should not be punished or put at a competitive disadvantage. We believe that providing payments on all gallons of biodiesel produced will also have an added benefit of simplifying the program rules.

**Payment Caps**

We urge that any program or payment caps be implemented only insofar as they are necessary due to the total program funding and the number of eligible producers that apply. We urge you to ensure that all funds available for a given year are distributed to the eligible producers that apply in that year.

Thank you for your consideration of these comments. We look forward to working with you and your staff to implement the Bioenergy Program quickly and effectively. We also appreciate your interest in the long-term rural development and renewable energy interests of our nation and the economic viability of the biodiesel industry. We stand ready to work with you on any ideas or concerns that you may have to ensure U.S. canola farmers and U.S. biodiesel producers continue to increase our contribution to the renewable energy, rural development, and environmental goals of the nation.

Sincerely,  
Steve Kakela  
President  
U.S. Canola Association

## **Biobased Products Coalition**

600 Pennsylvania Avenue S.E., Suite 320  
Washington, DC 20003

September 19, 2008

Submitted via email to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin Robinson  
Room 5803 South Agriculture Building, STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

Re: Comments on the Farm Bill Energy Title

Dear Under Secretary Dorr:

The Biobased Products Coalition (BPC) appreciates the opportunity to provide comments regarding the importance of the Energy Title of the 2008 Farm Bill. The BPC, which was formed in 2007, includes small, medium and large U.S. companies that make biobased products and intermediate ingredients, as well as agricultural organizations that represent feedstock providers.

Congress and USDA have recognized the value of this emerging industry to benefit America's energy security, rural economy, and the environment. To reflect this potential, the 2008 Energy Title of the Farm Bill changes the name of the Section 9002 program to "Biobased Markets Program".

Our organization commends USDA Rural Development for the financial support you provided for the implementation of the biobased provisions that were first included in the 2002 Farm Bill. USDA has already identified 33 biobased product categories and estimates that they cover 2,741 individual products, ranging from carpet backing to absorbents and much more. We appreciate that Agriculture Secretary Ed Schafer addressed biobased representatives gathered in July where he gave an encouraging message that the federal biobased products program is a priority. To advance this effort, we propose USDA Rural Development consider three specific actions.

First, we ask that you continue to support USDA's overall efforts, including the labeling program and appropriate verification of claims, as well as other efforts to expand on the opportunities for the young U.S. biobased industry to grow and reach its full potential.

Second, USDA should dedicate funds through rural development programs to support biobased products marketing and industry development. Many biobased manufacturers are small or medium-size businesses. While some have sought USDA Rural Development funding, their overwhelming experience is that their small business

structure does not make them a “fit” for support, because they are not “growing” products and are not cooperatives.

Third, USDA should commit Renewable Energy for America Program (REAP) funds for agricultural operators and businesses that use biobased products to make energy efficiency improvements. The REAP program is an excellent avenue to promote biobased products to applicants for these grants by giving special consideration to those candidates who integrate biobased products into their proposals. It is our hope that by educating these applicants about the benefits of biobased products, they will make the switch to biobased products and help create long-term markets. Because USDA Rural Development offices are located across the nation, this could be an important action in educating many new communities on biobased products. It also complements the initiatives of diverse groups, like the Midwest Governors Association and county organizations, in advancing a biobased economy.

Thank you for this opportunity to provide comments. We plan to request a follow up meeting with USDA Rural Development leadership to further explore these opportunities. If you have any questions, please feel free to contact Karen Edwards at 703-281-7600 or Tom Hance at 202-969-8900 of Gordley Associates, which represents the BPC.

Sincerely,  
Biobased Products Coalition





STATE OF WASHINGTON

DEPARTMENT OF AGRICULTURE

*P.O. Box 42560 • Olympia, Washington 98504-2560 • (360) 902-1800*

September 17, 2008

Robin Robinson, Confidential Assistant  
Office of the Administrator  
U.S. Department of Agriculture Rural Development  
Business and Cooperative Programs  
Room 5803, South Agriculture Building, STOP 3201  
1400 Independence Avenue SW  
Washington, DC 20250-3201

Dear Ms. Robinson:

The Washington State Department of Agriculture appreciates the opportunity to comment on Title IX, the energy title of the 2008 Farm Bill. We are encouraged by the energy title's potential to benefit Washington's agricultural producers and rural communities. Many producers are struggling to keep up with energy price increases, and programs such as the Rural Energy for American Program are vital to help our producers remain viable and competitive amid rising energy costs.

We are pleased to submit the following comments on Title IX of the Farm Bill.

- **Award Rural Energy for America (REAP) program funds through state-level allocations.** Historically, the bulk of the funding was awarded to producers in just a few states. A state-by-state allocation would ensure more equitable distribution of the funding and promote energy project development across the U.S.
- **Create a simple application process for energy audit grants.** We are very pleased that energy audits will be eligible for funding under the Rural Energy for America program. The cost of professional energy audits is prohibitive for some producers, and in some cases has discouraged producers from applying for USDA energy efficiency grants in the past. We encourage USDA to create a simple application process that will allow growers to quickly apply for and receive cost-share for energy audits. We also encourage USDA to cost-share energy audits at a high rate (75% or higher).

We look forward to working with USDA staff in Washington to help our producers access the energy programs in the 2008 Farm Bill.

Sincerely,

Jeff Canaan  
Bioenergy Coordinator  
jcanaan@agr.wa.gov  
360-902-1918

**9007**

1. Geographic scope—100 mile diameter of the biorefinery
2. Net energy, CO2 reduction studies
3. Net energy values, CO2 reduction
4. Geographic scope documentation—LIFE CYCLE ASSESMENT AUDITING  
(LICA)
5. Yes
6. Maximum dollar amount—40 million yes cap on funds
7. All costs except R&D and advertising
8. LICA

I am writing in reference to applications I submitted to the 9006 grant program in FY 2008. In working with the state USDA office of Rural Development, and with the eight farmers whose applications were submitted, I offer the following queries:

If a farmer has annual production of greater than \$500,000 per year, according to program parameters, he is not classified as a “small” or “very small” ag producer. As you are aware, this distinction makes them ineligible for certain points. My question is, if this program is about energy conservation, why is there such a distinction? These larger producers are consuming more energy than the smaller ones. Their projects will likely be larger, and in order to implement their energy efficiency projects they are very likely to require the financial assistance as much as the smaller producers.

Another question: The producer is eligible for extra points if the total project cost remains below \$50,000. Understandably, Section 9006 parameters list a limit of funds that may be requested per application – no less than \$1,500 and no greater than \$250,000, and not to exceed 25% of total project costs. What I fail to understand is the distinction between a \$50,000 project and a \$50,400 project. Why does the cost of the project gain merit for being smaller and not greater in concept, especially if/when it correlates to greater energy savings?

Unfortunately, these distinctions have the effect of applications being “forced” into program parameters. For example, one application preparer said he made sure all his applications were submitted as simplified applications (total project costs below \$200,000) in order to qualify for those extra points. Ultimately, a realistic evaluation of on-farm energy consumption and savings is skewed.

In short, current (Section 9006) scoring criteria seem to discount ag producers who fall in between small and very large producers. I am confounded that according to at least two of the scoring criteria, energy conservation seemed less indicative of the projects’ merit than some arbitrary economic parameter.

As we anticipate further funding of this program in the Section 9007 REAP program, I urge you to consider revising the point system to avoid discrimination based on project costs, or annual productivity.

COMMENTS OF ROBERT GRAY  
NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY  
“Expanding Rural Renewable Energy Opportunities – Inviting a Dialogue with the  
Public on the new authorities of The Food, Conservation, and Energy Act of 2008”

September 4, 2008

The National Center for Appropriate Technology (NCAT) is pleased to offer the following comments on the implementation of energy provisions in Title IX of the Food, Conservation, and Energy Act of 2008 (the Farm Bill). Specifically, we wish to comment on Section 9007, the Rural Energy for America Program and Section 9009, the Rural Energy Self-Sufficiency Initiative.

NCAT is a national nonprofit organization with about 60 employees located in Montana, Arkansas, California, Iowa, Louisiana, and Pennsylvania. NCAT has been committed to renewable energy and energy conservation since 1976, making us one of the oldest and most respected energy organizations in the United States. For example, we have conducted over 500 farm and ranch energy audits; trained hundreds of energy engineers; managed dozens of utility-funded energy conservation programs; and built and facilitated all kinds of renewable energy demonstration projects – including wind, biofuels, geothermal, anaerobic digestion, and the use of solar energy for electric generation, space heating, and water-heating.

Since 1987, our ATTRA Project – Appropriate Technology Transfer to Rural Areas – has been offering no-cost technical assistance to farmers, ranchers, and other rural people on sustainable agricultural production, processing, and marketing. ATTRA is funded through a cooperative agreement with the USDA Rural Business-Cooperative Service.

The 2008 Farm Bill makes ATTRA a permanent program, and gives it, for the first time, the explicit mission of providing energy-related technical assistance. ATTRA is now required “to assist agricultural producers that are seeking information to (A) reduce input costs; (B) conserve energy resources; (C) diversify operations through new energy crops and energy generation facilities; and (D) expand markets for agricultural commodities produced by the producers by using practices that enhance the environment, natural resource base, and quality of life.” (Title VI, Section 6016)

In giving ATTRA this mission of energy-related technical assistance, the new Farm Bill makes official something that has, in fact, been going on for many years. About five years ago, NCAT began ramping up to meet new information needs that were being driven by high energy costs and an explosion of interest in producing renewable energy on agricultural lands. We built a whole new Farm Energy area with our ATTRA website ([www.attra.ncat.org](http://www.attra.ncat.org)). We created dozens of new energy-related publications. We hired new staff with energy expertise. NCAT also began conducting workshops for agricultural audiences around the country on energy conservation and renewable energy funded by a series of grants separate from the ATTRA project.

For example, within the past twelve months NCAT sponsored workshops on farm-scale biodiesel production have been attended by over 1, 500 agricultural producers in twelve states. Our popular guidebook on irrigation efficiency has been customized and distributed in 15 states – over 30,000 copies altogether. We are also currently midway through a three-year research project (funded by USDA’s Risk Management Agency) on how to improve the availability and usefulness of farm energy audits nationally.

NCAT has been a strong advocate for the energy programs in the Farm Bill, and we are delighted to see increased funding for the REAP Program (Section 9007) as well as the new Rural Self-Sufficiency Initiative (Section 9009). We are pleased to offer the following comments on the implementation of these two programs.

1. We would like to thank the many USDA agencies that have been partners or cooperators with NCAT in delivering energy-related technical assistance to agricultural producers and rural communities. These include USDA Rural Development; the USDA Natural Resources Conservation Service; the USDA Risk Management Agency; and the Cooperative State Research, Education and Extension Service. Because of all the collaborative work over the years, NCAT has the staff and infrastructure in place to begin assisting immediately with the implementation of energy programs in the Farm Bill. We are widely known and trusted for our technical expertise in agriculture and energy, and for our skill in communicating with rural audiences.
2. NCAT is eager to participate in the new energy audit/technical assistance component of REAP. But the eligibility language (Section 9007b) does not specifically identify nonprofits as eligible, leaving this to be “determined by the Secretary.” We would ask the Secretary of Agriculture to allow nonprofit organizations to compete for these funds. Many other non-profit organizations, like NCAT, are highly qualified to provide these services.
3. NCAT is glad to see that 10 percent of REAP funds are allocated to feasibility studies. These studies will provide an assurance that public funds are being spent wisely and an assurance to rural landowners that they are investing in projects with a reasonable chance of success. NCAT urges that implementation include safeguards to assure that these feasibility studies are conducted by those with no financial interest in the projects being proposed. As a national non-profit organization we offer our services and would be happy to play a role in conducting or overseeing these feasibility studies.
4. NCAT is enthusiastic about the new Rural Self-Sufficiency Initiative, and our engineers have already conducted energy assessments for a number of rural communities – towns like Pittsboro, North Carolina and Billings, Montana. We are eager to work with other towns that are interested in energy self-sufficiency,

and we would be happy to share our experiences with USDA as you begin to implement this new program.



**ENVIRONMENTAL LAW & POLICY CENTER**  
Protecting the Midwest's Environment and Natural Heritage

**Comments to the United States Department of  
Agriculture on Section 9007 of the Food,  
Conservation, and Energy Act of 2008**

**Submitted by**

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Harry Drucker - Chairperson Howard A. Learner - Executive Director



## **Introduction**

Since its inception in the 2002 Farm Bill, the Rural Energy for America Program (formerly Section 9006, the Renewable Energy Investment and Energy Efficiency Improvement Program) has awarded funds to nearly 2000 projects of all types and sizes—from small efficiency projects to large wind farm and biofuel facilities-- in all 50 states. By all accounts this program continues to be a success, and the increased funding and statutory changes in the 2008 Farm Bill will create opportunities for this program to reach more agricultural producers and rural small businesses, help to control energy costs and produce more sustainable, renewable energy. This is a true win-win-win for farmers, rural economic development and the environment.

A guiding principle of this program should be to support clean energy projects of all sizes and technologies throughout the country through energy technical assistance, feasibility studies and direct capital grants and loan guarantees. Our comments provide actions that USDA can take through the rulemaking process to achieve this principle.

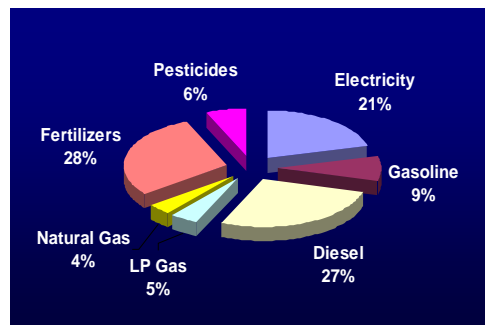
### **I. Energy Audits and Renewable Energy Development Assistance**

Although Congress authorized an energy technical assistance program in Section 9005 of the Farm Security and Rural Investment Act of 2002 Congress never funded the program. The explicit inclusion of this type of program in Section 9007 of the 2008 Farm Bill is important for at least two reasons. First, even with relatively modest funding it will achieve impressive economic and environmental payback. Earlier this year ELPC calculated that, based on USDA energy usage statistics, a \$15 million energy audit/technical assistance program would achieve the following energy and carbon savings:



- Farmers and rural businesses would save \$700 million dollars over five years (through a reduction in expenses for fertilizer, pesticide, electricity, propane and diesel).
- Approximately 1.5 billion pounds of carbon dioxide emissions would be avoided in the same five year period.

**Distribution of Ag Energy Use by Source, 2002**



*Source :John Miranowski, Iowa State University, “Energy Consumption in U.S. Agriculture”, Presentation to Farm Foundation Conference, “Agriculture as a Producer and Consumer of Energy.”*

*Note: Pesticide and fertilizer percentages refer to energy consumed indirectly in the manufacture of these products.*

An energy audit and technical assistance program is an important step in realizing those savings.

Assistance for energy audits targeted at the agricultural sector is not available in most states<sup>1</sup>. The REAP audit/assistance program will help to fill that gap. Because the Department has not administered a technical assistance program like this before, we have several recommendations to ensure that the limited funding available for this program maximizes benefits to the agricultural producers and rural small businesses that it targets.

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<sup>1</sup> American Council for an Energy Efficient Economy, “Energy Efficiency Programs in Agriculture: Design, Success and Lessons Learned,” 2005

### **A. Eligible Entities**

Section 9007(b)(2)(D) authorizes USDA to issue grants to “any other similar entity” in addition to the specified government units, higher-education institutions and rural electric cooperatives or public power entities. USDA should interpret the term “any other similar entity” to include other non-profit organizations that serve the agricultural or rural business sectors. Entities such as RC&D Councils, agricultural commodity organizations and farmer cooperatives play important roles for their service territories and constituents. Even if they do not have existing energy technical assistance capabilities in-house, they should be able to contract for these services and deliver them under their sponsorship. We believe non-profits are similar to the entities named in statute.

We also recommend that two or more eligible entities be permitted to submit a single, joint application, for example, a rural electric cooperative partnering with a university cooperative-extension service and a state energy office.

The rules should also ensure that entities are allowed to subcontract to either for-profit or public/not-for-profit entities to deliver energy audits, renewable energy assessments or other energy information services. Some organizations that lack the technical expertise to carry out energy audits may have other attributes that otherwise make them good candidates to administer a program otherwise, such as outreach capabilities, access to a network of agricultural producers and rural small businesses or expertise in renewable energy or energy efficiency technologies.

### **B. Use of Grant Funds**

Entities should have the maximum flexibility to tailor their programs to the specific needs and opportunities in their targeted geographic service area. The legislation broadly authorizes recipients to use grant funds to (1) conduct and promote energy audits; and (2) provide

recommendations and information on how to improve farm and rural small business energy efficiency and how to use renewable energy technologies and resources in operations. (§ 9007(b)(4)).

Within this broad authorization, ELPC supports the four following categories of activities that are eligible for funding:

**1.) Energy audits:** These audits are essential for identifying opportunities for energy efficiency improvements.

**2.) Renewable energy assessments:** The potential for agricultural producers and rural small businesses to produce energy from renewable sources depends entirely on the resource availability – whether it be wind, sun or biomass.

**3.) In-field energy management:** While fuel and fertilizer efficiency-related projects are not eligible for support under the REAP grant and loan guarantee program, addressing their use is a way to help grain farmers in particular benefit from this program while lowering their largest variable operating costs. Diesel, gasoline and fertilizer (synthesized from natural gas) prices have risen sharply in recent years. Permitting grantees to focus on in-field energy management, including precision agriculture assessments and workshops, could help farmers reduce these expenditures.

**4.) Workshops and Educational Activities:** Eligible activities should include in-person workshops, videoconferencing, webinars, websites and printed materials should all be eligible activities. While these are not substitutes for direct one-on-one audits, these activities allow a grantee to leverage limited resources in reaching a broader audience and promote the availability of audits.

### **C. Maximum Grant Size and Related Conditions**

We recommend that USDA limit grants to \$250,000 per year for single-entity applicants and \$500,000 per year for multiple-entity applicants. Since energy technical assistance funding is limited to 4% of total Section 9007 funding (or approximately \$2.8 million per year in FY2009), this limit ensures that at least 5-10 projects will receive funding. A smaller cap would limit the ability of the program to reach large service areas, while a larger cap could limit the number of projects that get funded and, as a consequence, also limit the geographic area that the program can cover.

USDA should allow for and indeed give preference to multi-year grant requests. Multi-year grants would help to maintain program continuity as awareness of local energy technical assistance programs and providers grows. Multi-year grants would also better serve farmers and rural small businesses by enhancing the knowledge base of the providers. A grant period of two to three years would allow this continuity while providing an opportunity for USDA to periodically review whether the grant recipient is utilizing the limited funding in the most effective way.

### **D. Selection Criteria**

USDA should use a point-based system to evaluate and select grant applicants, weighting the selection criteria on their relative importance. The three ranking criteria that we think should receive the most weight, in order of importance are:

- 1.) The potential of the proposed program to produce energy savings and environmental benefits.” We believe that grant applications should be evaluated both on the merits of the services the entity would provide directly as well as the program’s capacity-

building potential. This would ensure that the program benefits continue on even if federal funding is not available in future years. This is very important because:

- Thirty states lack any type of comprehensive energy technical assistance program for agriculture today.
- Only four programs provided any type of renewable energy assessment services.<sup>2</sup>

“Environmental benefits” should include an estimate of potential greenhouse gas reduction benefits. This criterion also supports the selection of grantees with an effective strategy for targeting agricultural sectors and businesses and technologies with the most potential for greenhouse gas reduction, either because they have been underserved in the past or because their energy use could be reduced in a very cost- efficient way. In other words, it encourages selection of applicants that propose to target the “low-hanging fruit.”

2.) “The plan of the eligible entity for performing outreach and providing information and assistance to agricultural producers and rural small businesses on the benefits of energy efficiency and renewable energy development.” The plan should include any existing outreach networks that might be utilized to better serve the target population. Additionally, the applicant should be required to provide details about the sectors and technologies that they intend to target.

Proposals need not target all sectors or provide a full range of services. For example, an entity may seek to provide only renewable energy education or only energy audits. Programs that target only one sector or technology, for example, dairy farms or retail businesses, should

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<sup>2</sup> American Council for an Energy Efficient Economy, “Energy Efficiency Programs in Agriculture: Design, Success and Lessons Learned,” 2005

also be given full consideration. However, the Department should give preference to proposals that seek to deliver a combination of direct assistance and educational activities.

3.) “The ability and expertise of the eligible entity in providing professional energy audits and renewable energy assessments.” Although this criterion is important, we want to emphasize again that many areas currently lack local expertise in agriculture-specific energy audits and renewable energy technical assistance. If applicants have a viable plan for staffing, training or contracting with people who have the technical skills necessary to effectively carry out the program, they should not be at a disadvantage if their application is otherwise outstanding relative to the two criteria listed above.

Selection criteria that should be weighed less include:

1.) “The number of agricultural producers and rural small businesses to be assisted by the program” The Department should normalize across projects by measuring the number of agricultural producers or businesses that can be assisted per dollar of grant assistance requested. This will encourage efficient use of funds and prevent the selection process from being biased toward programs that are larger in scope or serve larger target populations.

2.) “The ability to leverage other sources of funding” While leveraging federal dollars with existing funding is important, preference should be given to grant applicants in states that do not have existing agriculture/rural energy efficiency programs in order to build capacity in these under-served areas.

3.) “Geographic scope of the program” As referenced above, applicants need not serve all agricultural and rural business sectors within a geographic area but instead focus on areas of particular opportunity. Similarly, the geographic scope can be defined narrowly or

broadly if the applicant can demonstrate a demand for energy technical assistance that is relative to the funds requested.

**E. Merit review**

USDA should engage NREL or another organization skilled in energy efficiency and renewable energy assessments, to assist in the merit review called for on page 906 of the Managers' Report.

**F. Use of grant funds**

- 1.) Grants awarded under this program may be used for educational and outreach activities in addition to direct energy audit and renewable energy assessment services.
- 2.) Grantees can spend reasonable funds on program marketing and administration.
- 3.) The rules should ensure that the Energy Audit and Assistance piece is fully integrated with the rest of Section 9007. Energy audits and renewable energy assessments performed under this program should meet the requirements for those required to apply for a REAP grant or loan guarantee.

**G. Reporting**

Although the legislation does not specify any reporting requirements, grantees should submit reports semi-annually and at the end of the grant award period outlining services provided, number of services performed and persons or businesses reached, conversion (i.e., number of energy audits resulting in energy efficiency investments being made) and a detailed record of expenditures.

## **II. Renewable Energy and Energy Efficiency Grant and Loan Guarantee Program**

REAP also includes several improvements to the existing Section 9006 grant and loan guarantee program, such as expanded program eligibility, larger loan guarantee limits, a small-project grant amount set-aside, and other changes.

### **A. Program Eligibility**

The Section 9006 program previously applied to “farmers, ranchers and rural small businesses.” Under the USDA interpretation of this definition, greenhouses and nurseries located in non-rural areas were excluded from eligibility for Section 9006 grants and loan guarantees (despite the use of the term “agricultural producer” in Section 4280.107 in the Department’s final rules for the program<sup>3</sup>). The legislative language in Section 9007 of the 2008 Farm Bill deliberately expanded the scope of the renewable energy and energy efficiency grant and loan guarantee program to include all “agricultural producers and rural small businesses.” (§ 9006(c)(1)). Under this new statutory provision and USDA definitions of “agricultural producer”, the Department should recognize that that any greenhouse or nursery operation, and any other non-rural agricultural producers, should be eligible for the grant and loan guarantee program, *regardless of location*. It is worth noting that greenhouse operations are very energy intensive, particularly in northern climates. These energy needs can be significantly reduced through energy efficiency investments. Greenhouse operators are also receptive to solar, biomass and geothermal energy technologies.

### **B. Loan Guarantees**

Loan guarantees can help facilitate debt financing for many, primarily larger, projects. However, the track record of the past few years has shown that agricultural producers and rural small businesses do not embrace loan guarantees to the extent that USDA seeks to promote them.



We recommend changes to match the loan guarantee program with projects that would benefit the most from them.

The 2008 Farm Bill increased the maximum loan guarantee amount from \$10 million to \$25 million. The higher limit will help larger projects secure debt financing. We support the higher loan guarantee amount in the legislation and believe the USDA should use this tool to promote clean energy projects, but not at the expense of grants.

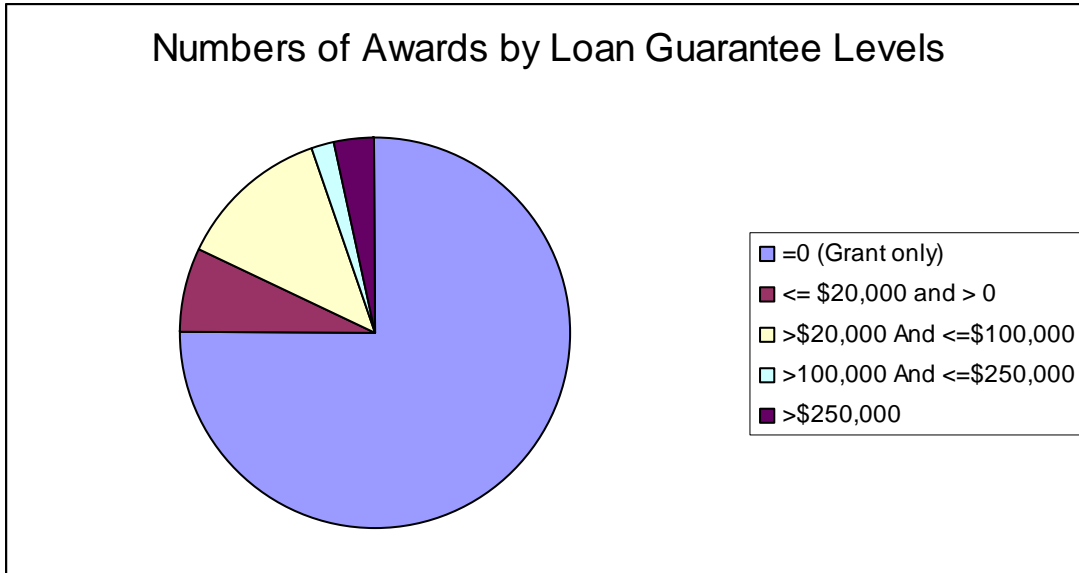
Over the past several years of the Section 9006 program, the Notice of Funding Availabilities (NOFA) and administrative rules have placed greater emphasis on loan guarantees. Yet, program results have not demonstrated the outcome which USDA intended, *i.e.*, a strong demand for loan guarantees and the ability, therefore, to leverage limited program funding. For example, in 2008, USDA set aside over \$200 million for loan guarantees or more than 50% of program funding. The Department also expedited review of loan guarantee or combination loan guarantee/grant applications (73 Fed. Reg. 12070). Despite this prioritization, USDA received requests for only \$71 million and awarded only \$15 million in loan guarantees. The following table shows results from the past three years:

<b>Fiscal Year</b>	<b>USDA Set Aside for Loan Guarantees (\$MM)</b>	<b>Loan Guarantees Requested (\$MM)</b>	<b>Loan Guarantees Awarded (\$MM)</b>
<b>2008</b>	205	71	16
<b>2007</b>	Not available	126	57
<b>2006</b>	Not available	58	24

These results demonstrate that the market demand for loan guarantees is well below that for grants, and does not justify the large set-aside. The following chart provides a breakdown by number of awards which again shows that loan guarantees are requested far less than grants.

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<sup>3</sup> 70 Fed. Reg. 41306



Loan guarantees are a useful financing tool for larger projects and indeed 90% of the value of loan guarantees awarded from 2003-08 have been for guarantees of \$250,000 or greater. Yet 80% of the total number of loan guarantee awards has been for requests of \$100,000 or less, suggesting that applicants who typically do not need loan guarantees are requesting them in combination with grants to enhance their chances of receiving an award. These loan guarantees come at a *net cost* to grant recipients in the form of the upfront payment of up to 1% and annual renewal payment of 0.25%. While the loan guarantees reduce risk to borrowers, experience has shown that the technical review performed by NREL under the application process also helps bankers gain confidence in project proposals. In addition, the smaller projects requesting loan guarantees have measurable and predictable energy savings and paybacks, further reducing the need for guarantees.

We recommend two steps to remedy this problem. First, the Department should eliminate the set aside and priority review for loan guarantees and instead let applicant need determine the mix of grants and loan guarantees. There is no reason to prioritize loan guarantee applicants and effectively discriminate against grant-only applicants.

Second, Rural Development offices should include lenders in their outreach on the Section 9007 program (see below) so that they are aware of and can promote the program to their borrowers for whom a loan guarantee improves the chances of financing a project.

**C. Program Outreach**

REAP requires USDA to “ensure, to the maximum extent practicable, that adequate outreach relating to this section is being conducted at the State and local levels.” The Managers’ Statement further states that “this outreach should include local Rural Development, Farm Service Department, Natural Resources Conservation Service and Extension offices.” Congress likely included this requirement to help more evenly distribute program funds throughout rural America. Between 2003 and 2008, 52% of Section 9006 program funds were awarded to projects in just five states (MN, IA, WI, NY, IL) and 12 states had 5 or fewer projects funded over the 6-year program period. Some large states with enormous rural renewable energy and energy efficiency opportunities (e.g., California, Florida) have had virtually no applicants for the program. The following table illustrates the problem:

**Share of USDA Section 9006 Grant Funding, 2003-08**

<b><u>State Ranking</u></b>	<b><u>Share of Grant Funding (%)</u></b>
Top 5 States	52%
Top 10 States	69%
Top 20 States	87%
Bottom 20 States	4%
Bottom 10 States	<1%

We believe that the high concentration of program funds awarded to a small number of states over the past five years is due, in part, to effective outreach by Rural Development staff in those states coupled with local partners such as grant writers, equipment vendors, utilities and RC&Ds.

USDA has made some effort in addressing this problem. It has made some of the best state rural energy coordinators available to help in other states and started to increase capacity to administer this program across state offices. USDA has also sought to streamline small project applications.

To further improve outreach, Rural Development should commit additional staff resources to the REAP and other energy programs, and encourage workshops and web-based information sessions similar to what has been done by the Rural Development Iowa office and others. Rural Development's website for this program (<http://www.rurdev.usda.gov/rbs/farbill/index.html>) needs to become far more robust with more content, automated application tools, resources for potential applicants and links to supporting web sites external to USDA.

Finally, we believe that the new energy audit/assistance grants and feasibility study grants will help to build program demand across more states.

#### **D. Small Project Set-Aside**

REAP requires that at least 20% of the available funding be set aside for grants of \$20,000 or less. The intent behind this requirement is clear—to provide greater support for lower-cost, less complex projects which provide immediate energy cost relief to agricultural producers and rural small businesses.

The number of grants meeting this size criterion continues to grow. However, in the 2003-08 period overall, only 7% of the total grant funds were awarded to projects of this size.

Reaching the 20% or greater level specified in the statute will require several changes by the Department. The Department should take steps to streamline the grant application process which, by most accounts, remains burdensome and an obstacle to a growth in applications for

small projects. These steps will also help the Department effectively manage a large increase in applications driven both by the increased funding level and increased emphasis on small projects:

**1.)** Automating and/or putting the application process on-line. At a minimum, this should include the creation of standard application templates and database-driven software systems to populate federal forms with common information (e.g., project owner and address).

**2.)** Evaluating small project grant applications on a continuous basis as received, using particular criteria such as financial payback or relative energy savings/energy production as a threshold for award decisions. Projects not meeting these criteria could be re-evaluated in the general application pool and funded based on their relative scoring and availability of funds. Small projects have shorter decision horizons. A rapid application turnaround would encourage more applicants who are contemplating near-term energy efficiency or renewable energy investments.

**3.)** Providing a standard payment for projects utilizing certain pre-approved equipment and technologies, again on a continuous basis. Payments could be based on a cents/kilowatt-hour or cents/therm saved for efficiency projects (e.g., 4c per projected kwh saved during the first year following installation) or on a dollars/unit of capacity for small renewable projects (e.g., \$3/watt). The Department could get guidance from, and build upon, many of the state utility ratepayer-supported Clean Energy Funds in setting these levels<sup>4</sup>. While the types of standard incentives vary considerably across these state programs, some examples include:

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<sup>4</sup> Good sources of information on these programs include the Clean Energy States Alliance ([www.cleanenergystates.org](http://www.cleanenergystates.org)), the New York State Energy Research and Development Authority ([www.nyserda.org](http://www.nyserda.org)), the Energy Trust of Oregon ([www.energytrust.org](http://www.energytrust.org)) and Wisconsin Focus on Energy ([www.focusonenergy.org](http://www.focusonenergy.org)).

<b>State</b>	<b>Technology</b>	<b>Incentive</b>
Wisconsin	Milk Pre-Cooler for Dairies	\$750
New York	Solar PV	\$3-5/installed watt
New Jersey	Small Wind Systems	\$3.20/annual kwh produced
California	Small Wind Systems	\$1.50/installed watt

The Energy Technical Assistance program, feasibility studies and increased outreach outlined above will also help in reaching this goal as agricultural producers and rural small businesses will be better informed both about opportunities to save/produce energy and the REAP program itself. We also applaud the Department for other steps it has taken in recent years to simplify the application process for smaller projects, such as by reducing the amount of required personal financial information and eliminating the project technical study requirement.

**E. Feasibility Studies**

REAP sets aside 10% of annual funding to provide support for feasibility studies for large renewable energy and energy efficiency projects. This is a valuable component of REAP that will help applicants develop sound projects. . Conversely, feasibility studies can also filter out projects which are not technically or economically attractive before large sums are invested in their development. The upfront expense of these studies is often a significant barrier to moving projects forward.

USDA has a number of good models for feasibility and planning grant programs both at the federal and state level that it can consult in developing program rules for the REAP feasibility study grants. Our recommendations are based, in part, on a review of those programs, and they include the following:

- 1.) **Applicant Eligibility:** The program should use the same applicant eligibility as the Section 9007 project grants and loan guarantees, i.e., agricultural producers, rural small businesses and rural electric cooperatives.

2.) Technology Eligibility: Any commercial or pre-commercial technologies eligible for Section 9007 grants and loan guarantees are eligible with the exception of renewable energy projects whose purpose is to offset an applicant's domestic energy use.

3.) Project Size Eligibility: Feasibility study grant requests should be limited to those proposed projects which would have a total project cost when built of \$200,000 or greater (based on the cutoff amount for “full” applications under the previous Section 9006 program).

4.) Matching Funds: Applicants should provide matching funds at least equal to the grant funds requested, to make sure they are, themselves, invested in the effort. In-kind contributions can count towards up to 25% of an applicant’s share.

5.) Maximum Grant: The maximum feasibility study grant should not exceed the lesser of 5% of estimated project costs or \$100,000.

6.) Application Submission: The Department should model its application format and submission requirements after the Value Added Producer Grant Program (see 72 Fed Reg. 18949 for the 2007 NOSA).

7.) Evaluation Criteria: The Department should use the following criteria in evaluating applications:

- Nature of the project, focusing on suitability of the project in the context of available resources in the project region. To assure renewable energy project viability, applicants should make a case that sufficient quantity and/or quality of renewable resources exist in the proposed project area for the project envisioned. This might take the form of wind speed data from neighboring airports, or approximations of biomass residues or acreage for new energy crops. The rules should include scoring for addressing the nature and magnitude of the renewable resource.
- Technical Maturity: The Department should award additional points to projects that demonstrate a degree of technical risk or innovation if the project has the potential to be replicated commercially.

- **Consultant Qualifications:** Applicants should demonstrate that the proposed outside consultants are capable of performing the feasibility study. To maintain study quality and impartiality, it is important that the consultants are independent of any particular technology or equipment vendors.
- **Project Leadership:** Applicants should demonstrate that the entity has capable project management.
- **Quality of Work Plan:** Workplans should be sufficiently detailed with well-defined goals, reasonable tasks, timelines, deliverables and budgets.
- **Environmental Benefits:** Applicants should estimate the anticipated environmental benefits of the proposed project including carbon reduction benefits.
- **Economic Benefits:** The proposal should illustrate benefits in terms of increased employment or other local economic benefits should the project be built.
- **Business Size:** The Department should award additional points for small or start-up enterprises without sufficient resources to complete the feasibility study. This reduces the number of “free riders” who would otherwise do a feasibility study without support.
- **Administrator Discretion:** The Department should be able to award additional points for applicants who help to fulfill additional goals of the program including geographic and technology diversity.

**8.) Application Technical Review:** The Department should engage the National Renewable Energy Laboratory (NREL) for review of Criteria 1-3 and 6 referenced above in each application submitted under this program.

**9.) Reporting Requirements:** Successful grantees should be required to submit semi-annual and final performance reports detailing work completed and funds expended.

**10.) Payment Terms:** USDA’s grant should only be paid upon feasibility study completion and after appropriate documentation and invoices submitted to the state Rural Development office.



**11.) Eligible Expenses:** In addition to study costs, technical services such as wind speed monitoring, soil borings or preliminary design should be eligible expenses.

**12.)** Grantees under this program may later apply for a grant or loan guarantee under Section 9007. The reports produced should be suitable for submission with a Section 9007 grant or loan guarantee request. However, receipt of a feasibility study grant under this program should not be a factor (positive or negative) in making capital grant or loan guarantee decisions under Section 9007.

\*\*\*\*\*

Thank you for the opportunity to submit these comments. We look forward to working with Rural Development in the development of final rules for Section 9007 and in the implementation and continued success of this important program.

Dear Ms. Robinson:

We appreciate the opportunity to submit comments on the 2008 Farm Bill. Our recommendations are as follows:

#### GENERAL RECOMMENDATIONS

We recommend that USDA ensure a fairer, more even distribution of money across the US. We recommend that 75% of the annual national amount available to be allocated to each state on a formula proportional to farming activity and that applications for projects <\$2 million be evaluated only at state level. The remaining 25% would be awarded at the national level for projects exceeding \$2 million. We recommend an open application period rather than a single NOFA and RFP period.,

We highly recommend a change to the rules to eliminate the possibility for an entity to garner multiple grants simply by using the legal maneuver of creating multiple LLC's. Nearly every year there has been a wind project that divides itself into 4-9 LLC's and is awarded multiple maximum grant awards. While theoretically an individual farm could do the same thing by forming an LLC for each digestion tank and generator combination to get around the \$500,000 maximum per project, these farmers are typically too busy and too pressed for cash to pay attorneys and accountants for such a maneuver. If USDA really wants to award more money to larger projects, then allocate grant dollars based on BTUs produced, delivered and utilized. The removal of dollar funding caps per project in the new Farm Bill may help this.

Finally, we recommend finding a way to give preference to projects with a large amount of local expenditures. The economic impact of the projects increase substantially when the projects are constructed using materials, labor and equipment from local companies.

Other specific recommendations:

#### 1. Section 9007 Renewable Energy Grant Applications

##### 1.a. Simplify the application process:

1.a.1. Create a list of recognized technologies and a description and only require the applicant to go into a detailed description of technology in the application if they will deviate from the recognized technologies. For instance, small differences in equipment selection with anaerobic digestion are not differences in technology, and should not have to be separately proven as commercially available. Clearly differentiate between new suppliers of proven technologies and new technologies.

1.a.2. Discontinue use of NREL reviews for applications using proven, commercial technologies. The reviews have been highly inconsistent, non-calibrated and resulted in good applications being failed or scored low. NREL reviewers have not had up-to-date information about systems and system providers already operating, and have made erroneous assumptions about what can and cannot work in real applications.

1.a.3. Eliminate redundant and duplicative sections of the technical report and business feasibility section.

1.a.4. Eliminate redundant and duplicative sections of the grant and loan packages when submitted as a combination.

1.b. Create optional track - Pay for Performance:

Create an option whereby the applicant can avoid the entire current application detail and select to be paid upon completion of the project subject to successful completion of the project. The applicant would be required only to outline the anticipated results/outputs of the project, and when achieved, the project would be awarded the money. In this way USDA is not paying out money for anything that doesn't achieve the results, and avoids all the work of trying to evaluate whether or not it will. The USDA can eliminate costly progress reporting and reviews. The applicant will have far more leverage over the system provider to ensure the project is completed successfully.

1.c. Eliminate inconsistency in rules - Pre- vs. Post-award Process for Bids and Contracts:

In order to file the application, the applicant must at a minimum have received budgetary quotations for the project. However, since the timeframe between application and award can stretch to 6-9 months, the applicant will be highly unlikely to receive firm quotations. The current application process scores higher if the applicant precisely names the companies providing the products and the names of individuals from those companies who will play key roles. Again, the long time frame between application and award makes this difficult. Companies become busy with other projects, and some companies go out of business or merge in this period of time. We recommend that USDA eliminate the requirement for assigning project roles if the applicant intends to conduct competitive bidding once they receive the award. The pre-construction conference can serve to ensure that qualified individuals have been obtained for each role.

The RD instructions allow the applicant to proceed with the project after making application and prior to receiving the grant award. We recommend USDA change the rules to adopt a new procedure whereby the USDA catches up with a project in already in progress or completed. The new rules should clearly state what paperwork the USDA expects to be able to examine once it is ready to recognize the project.

1.d. Eliminate the requirement for the use of AIA contracts, and Simplify the Contracting Requirement.

For anaerobic digester projects, the AIA contracts are inappropriate and cumbersome. The USDA supplement to the AIA document adds to the confusion. Neither of the documents are sufficient to cover the actual provisions of most AD contracts.

We recommend USDA simplify contracting by providing a list of terms that must be included in all contracts over \$50,000 (whether a single contract to a turnkey project provider, or multiple contracts to providers of each element of the system) and leave the format up to the applicant and their contractors.

1.e. Be Clear About Award Bias

If USDA intends to award grants disproportionately to a certain type of project

(large/small, wind/solar/AD, etc.) be explicit about that in the announcement so that applicants can determine whether or not they should expend the time and effort to apply. Because of the high complexity of the application process for large projects, grant application preparation can cost \$5,000 to \$50,000. This is a waste of money if a certain type of project will not be favored. The current system harms the image of the program, creating an impression of unfairness, arbitrary decisions, and confusion. For every applicant that loses out when the tide shifts to a certain type of project during the review process, 10 more potential applicants will never even consider applying.

1.f. Recognize and Reward Multiple Benefits in Scoring

Rather than forcing a project to choose between energy efficiency and energy generation, or choose between energy replacement and energy generation, we recommend the scoring process be changed to reward projects that have multiple merits. In this way, the USDA will be granting money to the most deserving projects. On-farm biogas to energy projects, for instance, provide energy efficiency improvements by eliminating the line losses associated with conveyance of energy from central generating facilities to the farms. They also frequently eliminate 25-75% of the vehicle fuel used for hauling liquid manure by allowing the farm to use pumps and center pivots instead of trucks. On-farm projects replace the most expensive energy - purchased energy - and can also provide the opportunity to produce large quantities of excess energy without adding transportation costs associated with centralized systems. Projects such as these should score points in all categories.

1.g. Standardize and Quantify Environmental Benefit

We recommend that USDA adopt standard values applicants should use in order to quantify environmental benefits to eliminate the lack of calibration between projects regarding greenhouse gas or carbon reductions, and to eliminate the role that differences in protocols can make in the NREL technical review. If the environmental benefit is a pass/fail or yes/no, we recommend USDA vastly simplify this section by listing technologies or systems that are already recognized to have an environmental benefit.

1.h. Set Standard Interest Rate for Loan Guarantee

We recommend the USDA establish a maximum interest rate for the loan guarantee portion to ensure that the applicant receives some benefit in exchange for the additional assurance provided to the lending institution. This will help justify the additional work required for that application.

1.i. Allow use of Used/Rebuilt Equipment, In-kind Labor and Eliminate Requirement for Five Year Warranty

The biggest challenge for these projects is economic viability. Farms could save significant money if the USDA rules allowed use of rebuilt equipment and in-kind labor. Long lead times and high costs could be eliminated. For many projects, common off the shelf equipment components will be used which do not carry long warranties. Motors, gear boxes, separators, fans and compressors - all of these are necessary items that will normally have a 6 months to 18 month warranty. Projects should not be penalized for this.

1.j. Eliminate the Conflict between ROI and Demonstration of Financial Need

The previous scoring awarded more points for more profitable projects as calculated on an ROI basis, while also requiring that the project demonstrate financial need. These two seem to be in conflict.

1.k. Disburse grant funds in proportion to spending

The current system of providing grant funds only when 75% of TEPC have been expended requires applicants to obtain financing for 100% of the project, given the delay between paying out the money and getting the grant dollars. We recommend proportional grant payments.

Respectfully submitted,

Norma McDonald  
Operating Manager  
Phase 3 Renewables, LLC  
7155 Five Mile Road  
Cincinnati, OH 45230  
Phone: 513-265-2758  
Fax: 330-319-8152  
[www.phase3renewables.com](http://www.phase3renewables.com)



September 4, 2008

United States Department of Agriculture  
1400 Independence Avenue, S.W.  
Washington DC 20250

RE: EnSave's public comments: Expanding Renewable Energy and Energy Efficiency Opportunities in Rural America

Dear Panel Members:

EnSave, Inc. is a business that has performed farm energy audits since 1991. We are considered the industry leader in agricultural energy efficiency programs and farm energy audits, and have performed over 1,500 energy audits for farms across the United States. Several of these energy audits have been in support of Rural Development's Section 9006 applications.

The new Farm Bill language states that REAP is to: "promote energy efficiency and renewable energy development for agricultural producers and rural small businesses through: 1) grants for energy audits and renewable energy development assistance; and 2) financial assistance for energy efficiency improvements and renewable energy systems." Eligible Entities to apply for grants for energy audits are: (A) a unit of State, tribal, or local government; (B) a land-grant college or university or other institution of higher education; (C) a rural electric cooperative or public power entity; and (D) any other similar entity, as determined by the Secretary.

Therefore, a business such as EnSave which provides agricultural energy audits is not an eligible entity unless the Secretary determines it to be so. Unless we are considered an eligible entity to apply for energy audit grants within the 2009 REAP, we will lose a substantial part of our business and will effectively be excluded from directly providing a service we have helped develop and have provided for over seventeen years. Additionally, farmers will not be able to directly use the services of an industry leader, thus drastically reducing their access to technical assistance. We request your help in assuring we meet the criteria for an eligible entity to apply for grants for energy audits.

During rulemaking or any Notice of Funding Availability efforts, we request that language is included that specifically states the Secretary determines "***a corporation or rural small business that has demonstrated the ability to conduct agricultural energy audits***" is eligible to apply for grants for energy audits and renewable development assistance.

I sincerely appreciate your support of this matter and respectfully request that you honor our request. Please contact me at (802) 434-1822 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig Metz". The signature is stylized with a large, looping flourish at the end.

Craig Metz,  
CEO

## **“Expanding Rural Renewable Energy Opportunities-**

### **Inviting a Dialogue with the Public on the new authorities of the Food, Conservation, and Energy Act of 2008”**

**Presented by:**

**Craig Metz, Chief Executive Officer for EnSave, Inc.**

#### **Talking Points for Power Point Presentation**

**September 4, 2008**

EnSave has designed and implemented agricultural energy efficiency programs since 1991. Our clients include state and federal energy and environmental agencies, investor-owned utilities and rural electric cooperatives. We have run comprehensive energy efficiency programs in several states and have delivered over 1,500 farm energy audits to farmers across the United States.

We have a long history of working with USDA on the energy title of the Farm Bill, both to formulate policy and to implement program goals in the field. Areas where we have assisted USDA with energy issues include:

- In 2003, EnSave partnered with MACTEC Federal Programs to assist USDA with establishing guidelines, regulations, and a delivery model for the loan portion within the energy title of the 2002 Farm Bill
- Serving on core committee for development of USDA NRCS / American Society of Agricultural and Biological Engineers Energy Audit Standard in 2007 and 2008.
- Working with American Society of Agricultural and Biological Engineers to review NRCS Energy Audit Standard in 2007 and 2008.
- Coordinating development of farm energy audit standards / guidelines with both USDA NRCS and USDA Rural Development to ensure the process is consistent in 2007 and 2008.
- Speaking upon invitation from NRCS at the 2005 Energy Management Dialogue about its farm energy audits and the availability of farm energy auditors throughout the United States.
- Presenting information about agricultural energy efficiency to USDA leadership and field staff

EnSave recognized a need to get more energy audit data collectors in the field, able to visit farms in all corners of rural America. To meet this need, we developed partnerships with the National Association of Resource Conservation & Development Councils and the National Association of Conservation Districts to train their members and affiliates in data collection and provide these local organizations with a new skill and revenue source.

This partnership and the delivery of an infrastructure are well underway, with training recently completed in:

- Alabama
- Maryland
- Oregon
- Texas

EnSave will provide training in the following states within the upcoming months:

- Montana (USDA Conservation Innovation Grant)
- Colorado (USDA Conservation Innovation Grant)
- New Jersey (USDA Conservation Innovation Grant)
- Florida (USDA Conservation Innovation Grant)
- Vermont (Environmental Protection Agency)
- Virginia (National Association of Resource Conservation & Development Councils)
- California (National Association of Resource Conservation & Development Councils)
- Arkansas (Arkansas Energy Office)

The Texas training is part of the Texas Agricultural Technical Assistance Program, operated through the Texas Comptroller of Public Accounts, State Energy Conservation Office. This program will support REAP by generating more energy audits, and therefore more REAP applications, from a state that has had historically low participation in Rural Development's energy efficiency programs.

In addition to providing farm energy audit data collection training, performing energy audits, and promoting the program, EnSave worked to ensure Texas Rural Development could have multiple opportunities to promote REAP and provide grant application training to interested farms, rural small businesses, and grant packaging consultants.

**Because of our long history as an advocate for and participant in USDA's energy efficiency programs, we need to make sure "a corporation or rural small business that has demonstrated the ability to conduct agricultural energy audits" is eligible to apply for grants for energy audits and renewable development assistance.**

Thank you.





September 12, 2008

Robin Joy Robinson  
Special Assistant to the Administrator  
USDA Rural Business and Cooperative Programs  
1400 Independence Avenue, SW (Room 4231)  
Washington, DC 20250

RE: EnSave's public comments: Expanding Renewable Energy and Energy Efficiency Opportunities in Rural America

Dear Ms. Robinson:

EnSave, Inc. would like to include the following information as an addendum to our September 4, 2008 comments.

The Farm Bill language defines the following entities as eligible to apply for grants for energy audits:

(A) a unit of State, tribal, or local government; (B) a land-grant college or university or other institution of higher education; (C) a rural electric cooperative or public power entity; and (D) any other similar entity, as determined by the Secretary.

In our September 4 letter we requested the Secretary determine "***a corporation or rural small business that has demonstrated the ability to conduct agricultural energy audits***" be an eligible entity based on a variety of factors. However, we did not explain how we are a "similar entity" to items B and C above. While EnSave is not a land-grant college or university or an institution of higher education, or a rural electric cooperative or public power entity we do see ourselves as energy educators. USDA is asking these entities to provide an educational service that EnSave offers.

Land grant universities or other institutions of higher education use the Extension Service system to provide researched-based education and technology transfer to the community. Organizations like EnSave are similar because they provide educational services to the community focused on energy efficiency. In particular, EnSave educates farmers about energy efficiency through an energy audit.

EnSave is also a similar entity to a rural electric cooperative. According to the National Association of Rural Electric Cooperatives, one of the core cooperative principles is Education, Training, and Information. EnSave also provides education to cooperative members and cooperative employees in the form of energy audits, energy audit training, and energy efficiency education.

Because EnSave offers energy efficiency education and farm energy audits and the two entities described above would be offering a similar service, we believe we meet the criteria for the secretary to determine that we are an "other similar entity".

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig Metz". The signature is stylized with a large, looping initial "C" and a long horizontal stroke extending to the right.

Craig Metz  
Chief Executive Officer

Enclosure: September 4, 2008 letter



September 4, 2008

United States Department of Agriculture  
1400 Independence Avenue, S.W.  
Washington DC 20250

RE: EnSave's public comments: Expanding Renewable Energy and Energy Efficiency Opportunities in Rural America

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Therefore, a business such as EnSave which provides agricultural energy audits is not an eligible entity unless the Secretary determines it to be so. Unless we are considered an eligible entity to apply for energy audit grants within the 2009 REAP, we will lose a substantial part of our business and will effectively be excluded from directly providing a service we have helped develop and have provided for over seventeen years. Additionally, farmers will not be able to directly use the services of an industry leader, thus drastically reducing their access to technical assistance. We request your help in assuring we meet the criteria for an eligible entity to apply for grants for energy audits.

During rulemaking or any Notice of Funding Availability efforts, we request that language is included that specifically states the Secretary determines "***a corporation or rural small business that has demonstrated the ability to conduct agricultural energy audits***" is eligible to apply for grants for energy audits and renewable development assistance.

I sincerely appreciate your support of this matter and respectfully request that you honor our request. Please contact me at (802) 434-1822 should you have any questions.

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A handwritten signature in black ink, appearing to read "Craig Metz". The signature is stylized and written over a light blue horizontal line.

Craig Metz,  
CEO



September 19, 2008

Robin Robinson  
Room 5803  
South Agriculture Building  
STOP 3201  
1400 Independence Avenue, SW  
Washington D.C. 20250-3201

Dear Ms. Robinson,

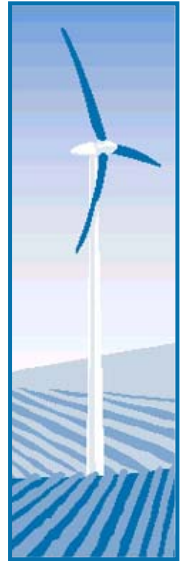
Attached please find the following document as submitted electronically to you today in response to the Rural Business-Cooperative Service Notice of a Public Meeting on Implementation of Title IX, Energy Authorities of the Food, Conservation and Energy Act of 2008 as published in the Federal Register on August 25, 2008:

- Comments of Windustry on the USDA Farm Bill Section 9007: Rural Energy for America Program

Sincerely,

A handwritten signature in black ink, appearing to read "Lisa Daniels".

Lisa Daniels, Executive Director



Windustry  
2105 First Avenue S  
Minneapolis, MN 55404  
612.870.3461 *phone*  
612.813.5612 *fax*  
[www.windustry.org](http://www.windustry.org)



Windustry respectfully submits the following comments on the USDA Farm Bill §9007 Rural Energy for America Program.

**Section 9007(b):**

Windustry believes that the entities that are eligible for funds under section 9007(b), Energy Audits and Renewable Energy Development Assistance, should include organizations that provide significant education and outreach as well as technical expertise on wind energy development. These entities should be considered a “similar entity” under section 9007(b)(2)(D) to the extent that they meet the criteria listed under subsection (3). With regard to the selection criteria for funds awarded under section 9007(b), Windustry requests that the Secretary considers the outreach and education aspects of the applying entity as a vital piece to the success of the entire program.

Renewable energy development is a multi-faceted business that requires detailed and extensive knowledge on numerous areas, including finance, understanding property rights, understanding tax implications, technical knowledge about the equipment and a basic understanding of how electricity works and can be connected to the current grid. The ability of organizations to take on compiling all of this information and disseminating it to the rural producers and rural businesses is critical to the success of the Rural Energy for America Program. The more knowledge that someone has about renewable energy development and the more support they have in determining the best course of action, the more likely it will be that their application and project will be successful. This will only help to facilitate the application process within the USDA.

Additionally, Windustry believes that we are a good example of how important education and outreach is for rural energy development. We have a vast online informational resource and travel around the state of Minnesota holding landowner forums to help rural producers and businesses understand the wind development process. Windustry has been involved in educating landowners about wind energy development for over 10 years and during that time we have accumulated a core of expertise within our office as well as a team of experts who we contract out to help communities with technical studies. The process for such an organization to be considered an eligible entity by the Secretary should be more clearly defined.

**Section 9007(c):**

Windustry believes that a diversity of business models for wind energy projects is an important factor and should be considered under section 9007(c)(2)(G). There are many different ways that communities have come together and structured a business plan to finance wind energy development and they are all important to the further growth of rural economies. The Secretary should welcome applications for project funding from all of these business models and not place emphasis on any one particular example.

September 15, 2008

Robin Robinson, Confidential Assistant  
Office of the Administrator  
U.S. Department of Agriculture Rural Development  
Business and Cooperative Programs  
Room 5803, South Agriculture Building, STOP 3201  
1400 Independence Avenue SW  
Washington, DC 20250-3201

Dear Ms. Robinson:

The Oregon Department of Agriculture appreciates the opportunity to comment on Title IX, the energy title of the 2008 Farm Bill. We are very excited about the potential for the energy title to benefit Oregon's agricultural producers, especially given Oregon producers' past success in applying for Farm Bill energy programs. Many producers are struggling to keep up with energy price increases, and programs such as the Rural Energy for American program are critical to help producers adapt to rising energy costs.

We are pleased to submit the following comments on Title IX of the Farm Bill.

1. **Award Rural Energy for America (REAP) program funds through state-level allocations.** While we are pleased that many Oregon producers have received funds from this program in the past, many other high quality Oregon projects were turned down for funding. The bulk of the funding was awarded to producers in just a few states. A state-by-state allocation would ensure more equitable distribution of the funding and promote energy project development across the U.S.
2. **Allow agricultural producers within Metropolitan Statistical Areas to apply for REAP funds.** Several of Oregon's top agricultural products, including nursery products, fruits, and vegetables, are grown close to large cities within Metropolitan Statistical Areas. Agricultural producers should have the opportunity to apply for Rural Development energy grant and loan funds regardless of their location.
3. **Create a simple application process for energy audit grants.** We are very pleased that energy audits will be eligible for funding under the Rural Energy for America program. The cost of professional energy audits is prohibitive for some producers, and in some cases has discouraged producers from applying for USDA energy efficiency grants in the past. We encourage USDA to create a simple application process that will allow growers to quickly apply for and receive cost-share for energy audits. We also encourage USDA to cost-share energy audits at a high rate (75% or higher).

We would also like to recognize the excellent USDA Rural Development staff in Oregon for their work promoting USDA energy grant programs and assisting applicants and packagers with grant applications. Under their leadership, successful applications in Oregon have increased significantly during the past few years. We look forward to working with them to help Oregon producers access the energy programs in the 2008 Farm Bill.

Sincerely,

Stephanie Page, Renewable Energy Specialist  
PH (503) 986-4565  
FX (503) 986-4750  
spage@oda.state.or.us

**Congress of the United States**  
Washington, DC 20510

September 3, 2008

The Honorable Ed Schafer  
Secretary  
U.S. Department of Agriculture  
1400 Independence Avenue, S.W.  
Jamie L. Whitten Building, Room 200-A  
Washington DC 20250

Dear Mr. Schafer,

We are writing to urge you to include small rural businesses as an eligible entity within the Rural Energy for America Program (REAP). By granting eligibility to small rural businesses through the rule making process the Department will ensure that REAP will offer access to the best resources available to help farms and rural small businesses reduce their energy use.

The 2008 Farm Bill states that REAP are intended to: “promote energy efficiency and renewable energy development for agricultural producers and rural small businesses through: 1) grants for energy audits and renewable energy development assistance; and 2) financial assistance for energy efficiency improvements and renewable energy systems.” Eligible Entities to apply for grants for energy audits are: (A) a unit of State, tribal, or local government; (B) a land-grant college or university or other institution of higher education; (C) a rural electric cooperative or public power entity; and (D) any other similar entity, as determined by the Secretary.


In many cases small rural business are uniquely qualified to provide producers energy audit assistance to reduce energy use. One such company is EnSave, Inc., a Vermont small business that has performed farm energy audits since 1991. EnSave, Inc. has proven itself as an industry leader in agricultural energy efficiency programs and farm energy audits by performing over 1,500 energy audits for farms across the U.S. Several of these energy audits have been in support of Rural Development’s Section 9006 applications. While EnSave, Inc. is just one example of a rural small business that can assist producers with farm energy audits, their track record serves as an example of a rural small business who we believe should have the ability to compete for funding under REAP.


We therefore urge you to include rural small businesses that have demonstrated the ability to conduct agricultural energy audits as an eligible entity during rulemaking process or any Notice of Funding Availability for the Rural Energy for America Program.




Thank you for your attention to this matter.

Sincerely,

  
Patrick Leahy  
United States Senator

  
Bernard Sanders  
United States Senator

  
Peter Welch  
United States Representative

**9009**

1. Community—a population center within a county that is legally organized  
Conventional Energy—Energy that is produced by fossil fuels  
Substantially energy self-sufficiency—reducing dependence by 30% on fossil fuel derived energy.  
Rural in character—Rural land is more of total area, than urban land area.  
Eligible project cost—all except R&D and advertising  
Eligible technologies—All technologies that have commercial potential of 3 years or more.
2. Benchmark—local energy cost, available biomass supply, LICA assessments
3. Bachelor of Science Environmental Engineering—Benchmark CO2 reduction/net energy values
4. Application for profit entity existed for 1 year prior to applying
5. Use of grant funds-consideration-step by step process
6. No
7. 5 grants per state, 1 per community, limited multi-purposed applicants of 20% of applicants.
8. IRS – No tax due
9. Profit and Loss/balance sheet
10. All eligible cost (except advertising and R&D) communities should spend their match before receiving funds.

To whom it may concern:

I am a volunteer advocate for a number of interrelated interests and ecosystems here in the Northern Great Basin. Our communities are dying slowly, infrastructure is failing, and resources have been not managed for ecosystem functioning for several years. The communities and the Forest Service and BLM are all aware of the problems, and the needs, but have not had funding to enable solutions. More precisely, under one of the hats I wear as an adviser to the local school district, we have 7 individual buildings, heated with 9 separate OIL fired boilers. Fossil fuel costs have practically bankrupted the district in the past few years. Natural gas is NOT available, and we have the highest level of heating degree days in Oregon (8,200 last year). The District has had to lay off key individuals in the past two years, to meet the level, and falling annual budgets, and the increasing costs of fuel.

We have hundreds of thousands of acres of forest, and rangeland that are overstocked with immature trees, and are not operating in Proper Ecological Functioning Condition. Healthy Forests Initiatives, and Fire reduction practices are helping, but are severely underfunded. In the meantime, the schools, and other commercial and institutional facilities are eager to get BACK to biofuels for their heating needs. Even now, having to truck materials a great distance, cost analyses have shown that there is a 3:1 payback for utilizing woody bio-mass in practically any form. We have applied for a number of grants for feasibility studies, and hopefully, for implementation of the results of those studies. USDA Rural Development has funded our studies, and so far, USDA USFS has not been able to help with materials - infrastructure is the missing link. We are committing to conversion of one of the larger boilers to pellet fuels, but want to consider conversion of the other 8, as well. We need LOTS of help, as there is no funding available locally. We are going to be grant dependent to accomodate what needs to be done. If the implementation of the Farm Bill provisions for renewable energy (9009), and Wood Energy (9013) have to be split into different agencies' realms of administration, that Rural Development still be the implementing agency, working with community partners and individuals. We have a record and familiarity with them. USFS should therefore concentrate on the wood energy aspects of the Bill. They NEED to communicate, and operate from the same goals and vision for success in the program to be enabled. We have had great support and relationships with both in this area. It would be far more effective if it were truly a team effort.

Respectfully submitted,

William R. Renwick II

*Robin:*

*Following are my comments concerning guidelines and implementing regulations (if required) for Farm Bill Section 9009. I work in wood energy programs for the USDA Forest Service and have completed several successful projects with USDA Rural Development, Small Business Office (Oregon), that neither agency could have completed by themselves:*

- 1. Explicit Language About Relationship Between Sections 9009 and 9013 (Community Wood Energy Program) - It appears Section 9009 (administered by USDA Rural Development) can be used for any renewable energy source and 9013 only for wood energy (administered by USDA Forest Service). My suggestion is that implementing language and guidelines clearly state the connection between the two programs, and that regular staff-level communication be established between USDA Rural Development and USDA Forest Service offices to ensure best use of limited funds and reduce confusion;*
- 2. USDA Administrator for Section 9009 - I'd like to suggest that USDA Rural Development, Small Business Program, be lead for Section 9009 because of existing relationships, programs, experience and prior investments in renewable energy programs;*

*Thank you for the opportunity to comment,*

*Larry Swan  
U.S. Forest Service*



19 Colonnade Way, Suite 117, State College, PA 16803  
917-270-5193 andy@biomassconnections.com

Written Comments In The Matter Of:

Expanding Rural Renewable Energy Opportunities  
Inviting a Dialogue with the Public on the new authorities of the  
Food, Conservation, and Energy Act of 2008  
(Pub. L. 110-234) ("the Act")

Background

I am both a small farmer and small business owner. Both of these ventures are start up operations in every sense of the phrase. My small business, BiomassConnections.com, launched this summer, is intended to provide an Internet forum for farmer to farmer discussion of the biomass category. It was borne out of my experiences as a small farmer in Pennsylvania, where I have decided to return to my agricultural heritage after a twenty five year career in an entirely unrelated industry. In that earlier life, I helped fellow engineers and the staff of a different federal agency comport regulatory policies with the way things are in the real world (or "in the market"). This regulatory background makes me somewhat of an unusual farmer, one highly attuned to making sure the ideas of government can be effectively and efficiently implemented in the field.

My farm has twenty acres of switchgrass that was planted this summer. This was farmland that had been let go fallow due to its difficult terrain and poor soil. Research of my options for restoring this land to a tillable state, either via contour farming techniques or for a return to grass hay production, led me to realize that this is exactly the type of marginal ground many envision using for biomass production. Consequently I planted switchgrass, with the target market a cellulosic ethanol plant planned for construction just a few communities away. The remainder of my land is forested with a mix of Pennsylvania's famous oak and black cherry trees, and, unfortunately, locust trees too. Those fast growing locust trees need to be thinned out to foster the development of the more marketable hardwood trees. Such woody biomass "thinings" could themselves be used for bioheat, perhaps targeted towards the Fuels for Schools program to augment or replace expensive fossil fuels.

I have spent the last three months engaged in learning about biomass production and processing, and recognize that I have really only scratched the surface of this category. However there are a few lessons from my experiences to date that are worth mentioning with regard to the biomass energy programs facilitated by the Act.

#### Section 9011 Biomass Crop Assistance Program

##### *Farm Service Agency Staffing Augmentation*

This past summer I registered my farmland at the local Farm Service Agency (FSA) office; this was done in anticipation of possible eligibility for the Biomass Crop Assistance Program. It took three in-person visits along with a number of letters back and forth to accomplish this, as my farmland hadn't been registered in many years and had to be broken off from a very old previous listing. The FSA staff was extremely helpful while walking me through all the required steps. The take away message here is: be sure to allocate enough resources for such registration or changes, as clearly I won't be the only person registering "new" land for use in biomass production. Even farmers of land that is currently registered for traditional crops or conservation reserve programs will require some face time at the local FSA office as changes are made.

## Section 9011 Biomass Crop Assistance Program

### *Financial Support of Alternative Uses For Biomass*

Clearly the most important consideration for a farmer entering the biomass business is determining whether there is a market to begin with. Recently I learned of the AFEX (Ammonia Fiber Explosion) research work conducted by Michigan State University. This work not only preprocesses switchgrass so that it is better prepared for a destination bioenergy plant, it also renders it more suitable for animal feed. Secondary traditional agriculture markets like this could be invaluable, as most farmers are not like me; they aren't willing to take a chance on a crop with no existing market let alone one that won't be harvested until two plus years hence. While the Biomass Crop Assistance Program does have provision for price supports if biomass is delivered to a biomass processor, it should also recognize the benefits of establishing such secondary markets and not unduly reduce payments to eligible producers who deliver to end users other than a biomass conversion plant. The Payment Reduction language in the Act states that such an adjustment will be by "an amount determined to be appropriate by the Secretary". A more favorable financial determination by the Secretary during these first formative years would go a long way towards promoting the needed growth of the biomass crop industry.

## Section 9011 Biomass Crop Assistance Program

### *Allowed Use of Intermediate Production Facilities*

The Biomass Crop Assistance Program anticipates that producers and a planned or already constructed "biomass conversion facility" will enter into a compact for a particular geographic area. This is intended to make sure that there is a probable market for the biomass material. Consequently one could imagine that most of the land in such a program would be near a cellulosic ethanol or other bioenergy processing facility. However, this is not the only model supported by the statute. The definition of "biomass conversion facility" in section 9001 of the Act does not require a facility to produce a finished biomass product. Instead, a facility that converts renewable biomass into "bio based products," products which include "an intermediate ingredient or feedstock," qualifies as a biomass product. This is an important point because, for reasons of scale, storage, transportation cost, and proximity to market it may make sense for a cellulosic ethanol plant to be constructed in a large city with

densified or preprocessed feedstock shipped to it via rail. Those intermediate densification or preprocessing facilities and their surrounding farmer partners should then become the entities eligible for support under the program.

#### Section 9011 Biomass Crop Assistance Program

##### *Implementation Assistance*

While not specifically a topic called out for comment, I am compelled to point out that small farmers will need access to specialty services and expertise in order to grow biomass. For example it was surprisingly difficult to find a local custom operator with the right type of no-till drill to plant my own field of switchgrass. I ended up hiring the services of a friendly contractor from another state, not the most economical way to do business in a time of \$4 diesel fuel. Fostering support of shared community and regional skills and equipment will be a key part of assisting the small farmer, and all such efforts that the USDA can undertake will be welcome. Frankly this may well be a need for the large farmer too. With switchgrass a long term perennial crop lasting eight years or more it may be difficult for even the largest farmer to justify buying such a specialty planter, let alone the high pressure balers needed to efficiently harvest it.

#### Section 9012 Forest Biomass For Energy

#### Section 9013 Community Wood Energy Program

##### *Grower and Community Woody Biomass Education*

At the start I mentioned that improving my forested areas could be an avenue for feedstock for bioenergy. At local forestry conferences I have observed considerable interest in this kind of program; much of it coming from small landowners like myself; people who want to do the right thing. Similar to the concerns mentioned for perennial grass crops, there are services that are needed here too. For example, cooperative or contract arrangements to gather up and transport the material. Expertise in which trees should be thinned and the methods to do so must also be shared. Moreover, education of the general public on the positives of using this material at regional bioenergy facilities is essential, or these facilities won't be constructed due to local community concerns about pollution, truck traffic, or other environmental worries.



Section 9012 Forest Biomass For Energy

*Reasonable Forest Stewardship Requirements*

Surprisingly I have also recently learned that there is a need for a much better understanding of how forest stewardship programs tie into woody biomass production. I had always thought that such programs were a good thing, but significant amounts of forest area reside in the hands of small landowners like me. These landowners might not have the wherewithal to have their wooded areas officially inspected and registered under the guidelines of existing forest stewardship programs. We may need some alternative environmental checks and balances so that we don't burden small landowners such that we prevent them from being part of the solution to our nation's energy challenges.

Section 9011 Biomass Crop Assistance Program

*Importance of Marketing and Promotional Efforts*

In closing it's important to reiterate that we must not underestimate the educational and marketing challenges ahead of us. Farmers are by definition busy people. Large farmers spend their time managing their diverse and far flung operations, and small farmers often need to support themselves through other means. Policies and procedures must be communicated in a way that farmers and landowners are able to easily grasp at times of their convenience. Most importantly we need to provide more examples of farmers who have successfully grown and marketed biomass crops, as well as forums for those individuals to meet with their peers. Marketing and promotional efforts both public and private must be augmented with adequate funding and support, as early on the message is perhaps the most important aspect of all the tasks ahead of us.

Respectfully Submitted,

**Andrew  
Bater**  
Digitally signed by Andrew  
Bater  
DN: CN = Andrew Bater, C  
= US, O = Biomass  
Connections LLC  
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Date: 2008.09.18 16:26:18  
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Andrew Bater

Biomass Connections LLC

September 18, 2008

Ms. Robin Robinson  
Special Assistant to the Administrator  
U.S. Department of Agriculture  
Rural Business and Cooperative Programs  
1400 Independence Avenue, S.W., #5803  
STOP 3201  
Washington, DC 20250-3201

BY EMAIL: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

RE: September 4, 2008 Public Meeting on Farm Bill Renewable Energy Provisions  
Biomass Crop Assistance Program (BCAP)

Dear Ms. Robinson:

The American Seed Trade Association (ASTA) is pleased to provide follow-up comments to the September 4 public meeting on the Farm Bill's Renewable Energy Provisions. Our comments will focus on the Biomass Crop Assistance Program (BCAP).

ASTA is the leading national trade association that represents over 775 companies involved in the seed industry. Our members hail from nearly every state and the seed sectors represented range from alfalfa to zucchini. ASTA members provide a majority of the quality seed for farm bill programs as well as seed for other agencies and departments to 75 at the federal and state levels. Our customers rely on quality seed and support. ASTA members stand ready to assist USDA in developing rules that will maximize the energy and conservation opportunities of the biomass feedstock production.

The following comments and suggestions are provided:

(a)(2)(B)BCAP Project Area Selection Criteria. We understand that the BCAP program has no statutory funding cap and can assume that the application process will be competitive. That being the case, we believe that there would be benefit to score applications. Such action would help to ensure that projects with the highest energy and sustainability provisions would be given appropriate consideration.

(i)"volume of eligible crops produced. We would propose that eligible crops produced should be interpreted to include the proposed uses, thereby giving equal consideration to large and small programs.

(ii) volume of renewable biomass other eligible crops grown on contract acres. ASTA believes that selection criteria should favor those projects where a greater share of material is coming from within the project area to encourage a closer relationship between the biomass conversion facility and its suppliers.

(iii) anticipated economic impact. ASTA assumes that for the most part, BCAP project areas will include those from Title I crops. Accordingly, our belief is that the existence of a project will likely lead to downstream local economic benefit in the conversion facility.

(vi) Impact on soil, water and related resource. ASTA agrees that Congress intended the BCAP program to provide incentive for long-term environmentally beneficial and sustainable energy crop production. We draw your attention to the Conference Report which emphasizes the program's criteria. Specifically, on page 919, "...the primary focus of the BCAP will be promoting the cultivation of perennial bioenergy crops and annual bioenergy crops that show exceptional promise for producing highly energy-efficient bioenergy or biofuels that preserve natural resources, and that are not primarily grown for food or animal feed." Moreover, the selection criteria should, in our opinion, establish standards for wildlife protection as they relate to the timing of harvest, monoculture versus polyculture, and other considerations. In addition, natural resource concerns should also address the potential of a given project to sequester carbon. Our view is that perennial crops and trees offer tremendous potential to capture and store atmospheric carbon relative to annual grain crops. In sum, the zero net carbon balance associated with using the harvestable portion of energy crops root systems of these crops can provide long-term sequestration of carbon in the soil.

(vii) and (viii) Variety in production approaches and range of eligible crops. ASTA advocates a range of production approaches and eligible crops in projects across the country. We do, however, believe it is not necessary to see a range of approaches and crops within a single BCAP project area.

(ix) Additional information. ASTA would respectfully propose the program to encourage projects from both a variety of locations and a variety of land and soil types.

(c) (5)(B) Amount of Establishment Payments. The legislation provides for payments up to 75 percent of establishment costs for perennial crops. We note, however, that there are no criteria for determining the level of these payments. We would recommend that the covered percentage be tied to the score on the selection criteria, as described in (c) (2) (B).

(c) (5)(C) Amount of annual payments. ASTA is not clear whether these payments are intended to cover the "lost opportunity cost" of not growing conventional crops on the land or simply the fixed cost of owning or renting the underlying land. For administrative ease, we would recommend that these payments be based on the local land rental rate in much the same way as the Conservation Reserve Program contracts rates are set. It appears to us that these payments are available to producers of annual crops, even though these crops are intended to be harvested in the same growing season in which they are established. Accordingly, we believe that the annual payment for *annual* crops should only be made in the case of a crop failure. Finally, it is unclear whether a producer should be eligible for annual payments if they are otherwise ineligible for or did

not qualify for establishment cost payments. We would suggest a further review to determine whether a producer for a perennial crop is eligible for both payments.

Consultation with Natural Resource Conservation Service. ASTA strongly encourages FSA to consult with the NRCS to best coordinate the program. ASTA believes that such coordination and interaction will complement similar and appropriate discussions with external offices at the Environmental Protection Agency and Departments of Interior and Energy.

Thank you for this opportunity to provide our unique input as the rulemaking process begins for the BCAP program. We look forward to continued dialogue and will be providing additional comments and perspective as the process moves forward.

Sincerely,

Leslie Cahill  
Vice President, Government Affairs

**USDA Rural Business - Cooperative Service**

**Public Meeting on Implementation of Title IX, Energy Authorities of the Food, Conservation, and Energy Act of 2008 – September 4, 2008.**

**Sec. 9011 BIOMASS CROP ASSISTANCE PROGRAM**

The BCAP Program is a very important solution to a very pressing problem – the fact that investors are equally unwilling to invest in feedstocks before biomass facilities are in place as they are to invest in facilities before feedstocks are in place (the so-called “chicken and egg” problem). BCAP offers needed incentives and assurance to farmers and foresters to produce these feedstocks. This is an urgent problem and it is very important that this program is implemented strongly and quickly, in time for the 2009 planting season. I would also like to stress the importance of a robust outreach program to ensure widespread interest and participation from the start. Because a specific funding level has not been authorized for this program (authority is for “such sums as are necessary”), it is especially important that funding for this important program is vigorously pursued in the FY2010 budget request.

A few additional comments and suggestions:

- A) A clarification on the definition of “crops”, “agriculture” and “agricultural land” is needed. In order to develop a reliable, sustainable supply of feedstocks in all regions of the country, it is important that we incentivize the use of a diverse range of feedstocks produced on a diverse range of lands. It is important that BCAP encompass the production of woody crops (including willow and poplar), that fallow and abandoned agricultural lands are eligible, and that residues from agriculture and forestry are eligible where appropriate. Residues (including residues from Title I crops), for instance, should be considered as eligible crops for collection/harvest/storage assistance grants.
- B) Sec. (c)(2)(B)(vi) directs the Secretary to consider “the impact on soil, water, and related resources” when selecting projects. The importance of this provision cannot be overstated. The final rule should favor projects that enhance watersheds, preserve soils, promote biodiversity, and utilize appropriate feedstocks and sustainable management practices. As for nonindustrial private forestland (NIPF), we recommend that priority be given to those projects that emphasize management for a full suite of environmental goods and services, including biodiversity, habitat, and watershed function. We would especially discourage funding projects under this program that convert NIPFs to woody plantations, monocultures, or agricultural crops.

**Sec. 9012 FOREST BIOMASS FOR ENERGY**

Woody biomass is an abundant and valuable resource and one that can be produced sustainably as a product of multiple-use, multiple-value forest management. However, there are many barriers to harvesting and utilizing woody biomass sustainably and cost-effectively. The Sec. 9012 program will provide much-needed funding to researchers and innovators hoping to develop technology, processes, and methodology that improve the efficiency, effectiveness, and sustainability of this resource.

In considering applicants for this program, we hope that priority will be given to those projects that seek to improve best management practices, minimize negative environmental impacts, and find ways to utilize

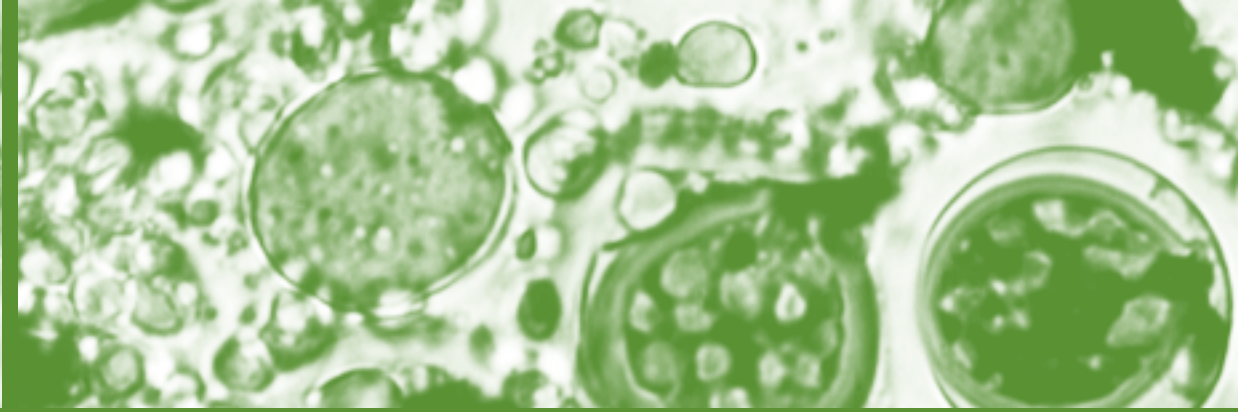
woody biomass that will complement a wide range of forest stewardship objectives, including wildlife habitat management, timber stand improvement, hazardous fuels reduction, biodiversity, and others. We also hope that priority is given to projects that seek to understand the economics of forest biomass and improve the cost-effectiveness of using logging residues, forest thinning, and other material from the woods. In an ongoing series of discussions with stakeholders, EESI has consistently found that poor economics is the primary barrier to use of such forest biomass in most regions of the country. This is one area where additional research dollars could really be effective. Finally, I would like to point out that funding for this program is not mandatory; EESI would strongly encourage the administration to pursue full funding for this program in the FY10 budget request and beyond.

### **Sec. 9013 COMMUNITY WOOD ENERGY PROGRAM**

EESI is really very excited about the Community Wood Energy Program. By providing funding for communities to do feedstock assessments, draft community wood energy plans, and install community wood energy systems, this program focuses resources on some of the most important aspects of environmental sustainability - small-scale projects, thorough assessments, and a strong community focus. This program has a lot of potential and I would encourage it to be implemented and ramped up as quickly and robustly as possible. The funding authorized for this program is considerably less than EESI would have liked to have seen and it is not mandatory. Full funding should be an important goal of the FY2010 Budget Request.

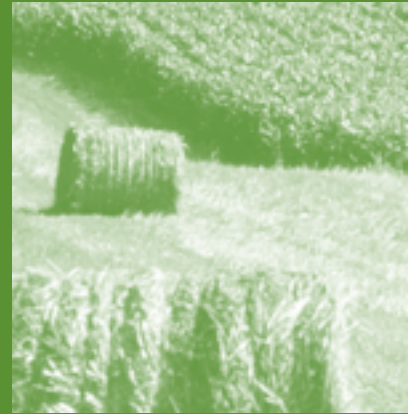
A couple of specific suggestions:

- A) Community wood energy plans include an assessment of “available feedstocks.” It is important that availability is understood to mean much more than a simple forest inventory. The availability of woody biomass is dependent on the available infrastructure, geography, environmental considerations, and the willingness of forest owners to harvest and sell material. I would recommend the Coordinated Resource Offering Protocol (CROP) tool as one example of a feedstock availability assessment that takes all of these factors into account. I would also suggest that full consideration be given to woody biomass resources other than forestry – urban wood residues, mill waste, industrial residues, etc.
- B) The community wood plan also includes an assessment of the “long-term feasibility of supplying and operating a community wood energy system.” It is essential that this assessment include the full suite of environmental considerations, including how woody biomass use will affect forest health, biodiversity, wildlife habitat, and watershed functioning in the community.
- C) Sec. (b)(2)(C) directs the Secretary to consider “other conservation and environmental criteria”. Specifically, we feel that priority should be given to those projects that will help achieve forest stewardship objectives (such as timber stand improvement or hazardous fuels reduction) in addition to providing clean, renewable community energy. EESI recommends that consideration also be given to the greenhouse gas and climate change ramifications of each project, giving priority to projects that replace coal and oil over those that replace natural gas or that utilize woody biomass that would be otherwise be landfilled or burned, releasing methane and carbon dioxide.



# Next-Generation Biofuels

Taking the Policy Lead  
for the Nation



A REPORT OF THE  
CHESAPEAKE BAY  
COMMISSION  
AND THE  
COMMONWEALTH OF  
PENNSYLVANIA

SEPTEMBER 2008



COMMONWEALTH OF PENNSYLVANIA



CHESAPEAKE BAY COMMISSION  
*Policy for the Bay*





**Chesapeake Bay Commission**  
*Policy for the Bay*

**pennsylvania** PA  
STATE OF INNOVATION

## Chesapeake Cellulosic Biofuels Project

### To Our Readers:

As America's dependence on foreign oil continues to grow, our nation is confronted with an energy crisis that jeopardizes our economy, our national security and our way of life, reasons that underscore the urgency of investing in and developing homegrown, alternative fuels.

The Chesapeake Bay region has the opportunity to emerge as the leader in this transformation, particularly in the development of next-generation biofuels. In order to do so, however, we must proceed in a manner that maximizes the economic opportunities of this emerging technology, while also protecting our natural resources.

This publication represents the culmination of a year-long effort on behalf of the Commonwealth of Pennsylvania and the Chesapeake Bay Commission to guide the region to a leadership role in the nation's evolution to cellulosic biofuels. In the course of this effort, the issues of energy independence and the economy assumed new importance as gasoline and grain prices reached record highs. Against the backdrop of these unprecedented challenges, our Biofuels Advisory Panel developed a roadmap to develop the next generation of biofuels using a new set of feedstocks independent of food crops that can be grown sustainably with greater environmental benefits for our lands and waters.

We present here the results of their work — 10 regional and 10 state-specific recommendations on how to enter the cellulosic era in a way that ensures both economic growth and environmental stewardship. These recommendations will be discussed thoroughly on September 4, 2008, at the Cellulosic Biofuels Summit in Harrisburg, Pennsylvania. This first-of-its-kind gathering will offer attendees valuable information on how the competitive advantages of our region — an extensive supply of forest and agricultural crop residues, favorable conditions for growing perennial grasses, and the existing volume of municipal solid wastes — can establish the region as a national leader in this endeavor; yield lasting benefits to our farm, forest and industrial economies; and advance our Chesapeake Bay restoration goals.

We look forward to working with you on this important matter.

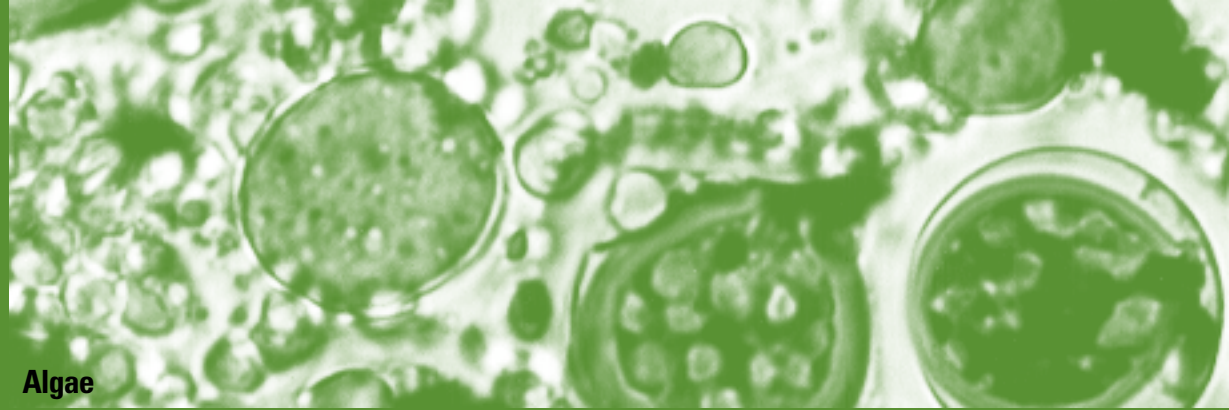
Sincerely,

Edward G. Rendell, Governor  
Commonwealth of Pennsylvania

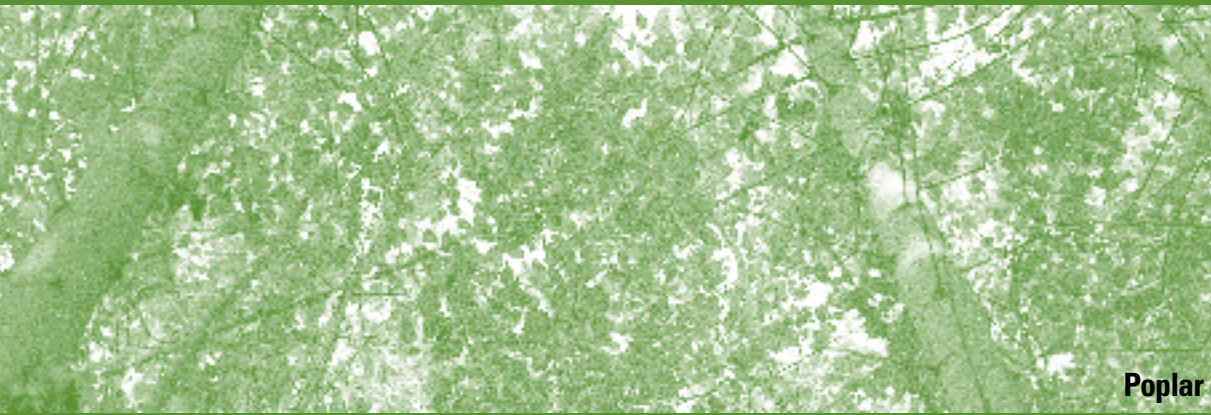
Rep. Arthur D. Hershey, Chairman  
Chesapeake Bay Commission



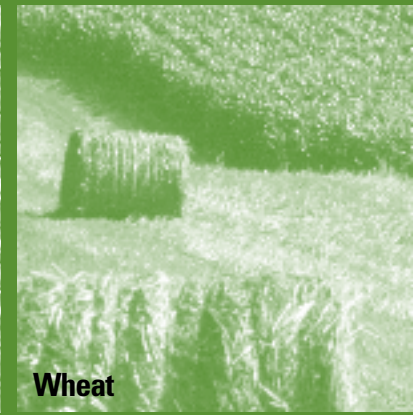
**Manure**



**Algae**



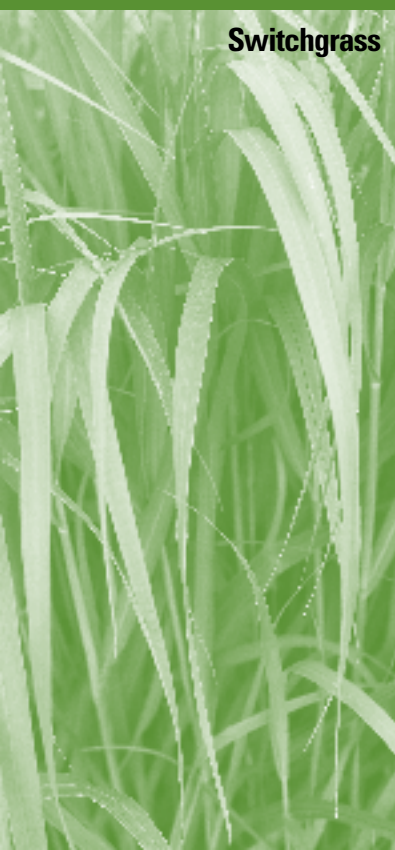
**Poplar**



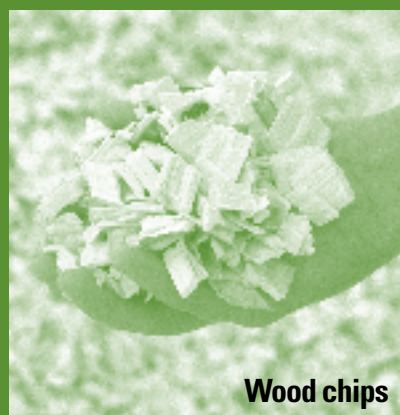
**Wheat**



**Willow**



**Switchgrass**



**Wood chips**



**Biomass**



**Barley**

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# Next-Generation Biofuels

## Taking the Policy Lead for the Nation

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A REPORT OF THE  
CHESAPEAKE BAY COMMISSION &  
THE COMMONWEALTH OF PENNSYLVANIA

SEPTEMBER 2008

# The Chesapeake Biofuels Project

PA

## Biofuels Advisory Panel

The Chesapeake Bay Commission and the Commonwealth of Pennsylvania wish to thank the following experts for generously sharing their time and knowledge in the preparation of this report. Without their tireless participation and expertise, this report would not have been possible. We also extend our appreciation to Delegate James Hubbard for his proficient leadership of our policy-making process.

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# Introduction

Every major source of energy used by modern society has an environmental impact — and all too often these impacts are negative. Today, the Chesapeake Bay region has an unprecedented opportunity to take the lead in a new era of energy production that could produce a wealth of positive impacts for our economy, farms and families, as well as our forests, rivers, and the Chesapeake Bay.

The opportunity lies with the new biofuels industry, which is currently exploding on both the national and international levels. The assets of the Chesapeake region make it well-positioned to become a leading player in the production and use of biofuels. Our climate, soils, and landscape can produce a wide range of feedstocks. Refining facilities can be placed near the sources of feedstocks, with efficient access to petroleum blenders and the open market. And the region already hosts a thriving biotechnology industry and a multitude of excellent, university-based researchers.

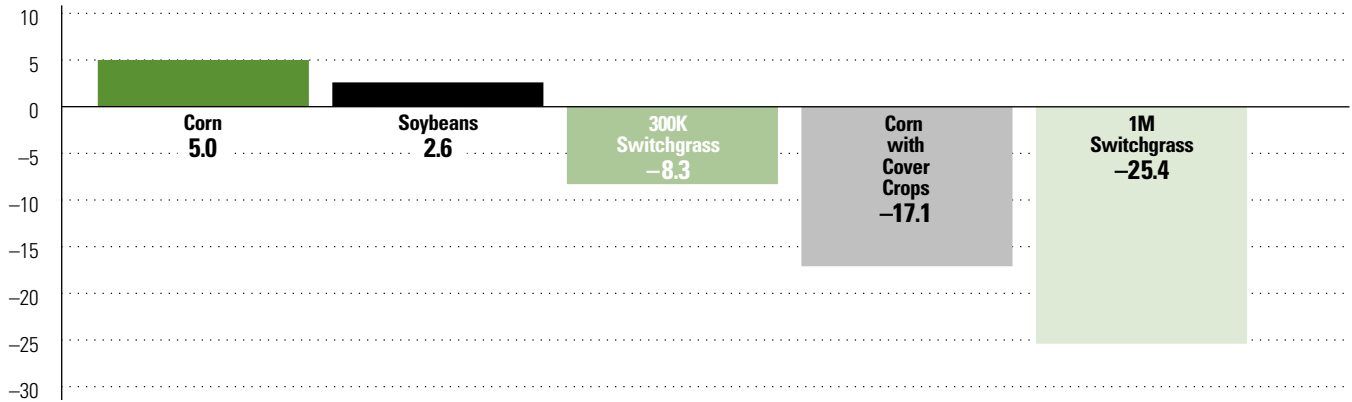
Many decisions driving the growth of the biofuels industry are made in a global marketplace and are beyond our control. However, as a region not yet fully invested in the production of first-generation biofuels (e.g. ethanol derived from corn or other grains), we have a rare opportunity in which our region's business, political and scientific leaders can proactively assert leadership in producing the next generation of biofuels — and they can shape elements of this emerging industry to serve both economic and environmental goals. To do this, we must act now.

The Chesapeake Bay Commission's 2007 report, *Biofuels and the Bay: Getting it Right to Benefit Farms, Forests, and the Chesapeake*, outlined a number of ways in which the growth in biofuel production could harm our region's environment (see Figure 1). It also demonstrated a number of ways we could capitalize on biofuels for both economic and environmental benefits. One of the many recommendations in the report was to make the Chesapeake region a leader in the development of cellulosic ethanol.

Cellulosic ethanol is among the suite of next-generation biofuels that will soon emerge from research laboratories to the commercial market. Ethanol and other fuels derived from cellulose hold much promise for supporting the nation's energy needs while helping to advance environmental goals. First-generation ethanol — derived from corn, barley and other grains — can degrade water quality in rivers, streams and the Chesapeake Bay, unless aggressive best management practices are put into place. On the other hand, cellulosic ethanol and other advanced biofuels use plant material for feedstock, such as perennial grasses,

FIGURE 1  
**Comparing Nitrogen Loads from Various Biofuel Feedstocks**

Millions of pounds per year of nitrogen delivered from the Chesapeake Bay watershed to the Bay under five modeling scenarios.



**Assumptions for Alternative Scenarios (Next 3–5 Years):**

- **Corn:** 300,000 additional acres of corn with typical levels of management practices
- **Soybeans:** 300,000 additional acres of soybeans with typical levels of management practices
- **300K Switchgrass:** 300,000 acres of switchgrass, converted primarily from hay and pastureland, with no fertilization
- **Corn with Cover Crops:** Cover crops on all existing and new (additional 300,000) corn acres and one quarter of all other row crops, watershed-wide.
- **1M Switchgrass:** 1 million acres of switchgrass, converted primarily from hay and pastureland, with no fertilization

SOURCE: U.S. EPA CHESAPEAKE BAY PROGRAM OFFICE, 2007

woody material, and corn stover. These feedstocks can help meet the nation’s fuel needs while actually helping to protect water.

Although not yet commercially viable, most experts agree that a cellulosic biofuels industry is only a few years away. In response, Pennsylvania Governor Ed Rendell and the Chesapeake Bay Commission stepped forward at the 2007 meeting of the Chesapeake Executive Council to jointly champion the Chesapeake Cellulosic Biofuels Project.

The Commission and the Commonwealth appointed a 22-member Biofuels Advisory Panel, comprised of experts from the public, private, and academic sectors across the watershed, to provide substantive and political guidance throughout the process. Delegate James Hubbard, who first led the Commission to investigate biofuels as 2007 Chairman of the Chesapeake Bay Commission, was appointed chairman of the advisory panel.

The Chesapeake Cellulosic Biofuels Project was staffed by the Chesapeake Bay Commission, assisted by a talented team of consultants. A Coordinating Committee was named, consisting of agency representatives from each state in the watershed, to help ensure transparency and a constant flow of information. A large number of funders

also helped to ensure our success. A complete listing is provided on page 36.

The Coordinating Committee also helped the Advisory Panel and staff team conduct stakeholder outreach sessions and state briefings to solicit a continuous stream of substantive input. Via face-to-face meetings and extensive e-mail exchanges, the Advisory Panel and staff team drew upon input from farmers, forest landowners, biofuel developers, environmental and conservation representatives, rural development advocates, agricultural and wood product and petroleum industry representatives, as well as academic and government partners, to develop the policy recommendations presented in this report.

As co-champions of this effort, the Commonwealth of Pennsylvania and the Chesapeake Bay Commission offer these recommendations to policy makers, opinion leaders, energy providers and consumers for consideration and adoption, so that the legacy of biofuels in our region will be one of economic prosperity, environmental sustainability and resource restoration.

# Why the Chesapeake? Why Now? The Case for Cellulosic Biofuels

**B***iofuels and the Bay: Getting It Right to Benefit Farms, Forests and the Chesapeake*, published by the Chesapeake Bay Commission in 2007, makes quite clear that biofuel development can produce significant benefits on multiple fronts — if managed correctly. The region's economy, environment, and farm and forestry communities each stand to gain from a smart, energetic entry into the biofuels market.

The nation may benefit, too. Biofuels can help displace a significant portion of the more than 180 billion gallons in petroleum-based gasoline, diesel and home heating oil consumed in America each year. As shown in Figure 2, the six states that comprise the Chesapeake region account for a substantial share of these fuels, including over 43 percent of home heating oil. While portions of some states are outside the watershed, they are likely also markets for biofuels produced within the watershed.

Water quality in the Chesapeake Bay and its rivers may also benefit from biofuels, once cellulosic and other advanced biofuels become commercially viable. The initial burst of ethanol production in the United States, which has focused on corn and other grains as a feedstock, is troubling for water quality. Corn tends to demand high levels of fertilizer and uses it relatively inefficiently. Without the aggressive use of best management practices, an increase in corn crops could also increase the amount of nitrogen runoff in the Bay and its rivers. In fact, the expanded planting in the Corn Belt is contributing to the record size of the oxygen-starved dead zone near the Mississippi Delta.

The feedstocks for cellulosic biofuels, on the other hand, create far less concern for water quality. The planting, management and use of cellulosic feedstocks such as perennial grasses and woody crops can in fact move us closer to Bay restoration goals by absorbing nitrogen and reducing the erosion of sediment into local waterways.

## The Science & the Opportunity

To date, the production of ethanol and biodiesel in the Chesapeake watershed has not been significant (see map, page 8). There are several reasons for this. Ethanol is currently produced for market using corn or other grains as feedstock. Some farmers in the Bay region have tapped into this market, but the farms here are smaller than the U.S. average and produce more specialty crops. Farmers must also balance the new demand for ethanol feedstock with the long-standing local market for corn and soybeans as livestock and poultry feed. Another challenge is the comparatively high cost of prime farmland due to develop-

**FIGURE 2**  
**Sales of Traditional Fuels**  
**In the Chesapeake Bay Region**

Millions of gallons sold

	<b>Gasoline (2007)</b>	<b>On-Highway Diesel (2007)</b>	<b>Home Heating Distillate Fuel (Oil and Kerosene) (2006)</b>
New York	5,683.1	1,097.0	1,092.7
Pennsylvania	5,020.4	1,515.0	689.2
Virginia	3,945.5	1,073.0	184.5
Maryland	2,464.0	558.7	138.0
West Virginia	731.5	294.5	15.5
Delaware	448.9	66.8	28.8
District of Columbia	89.2	8.3	7.5
<b>Region Total</b>	<b>18,382.6</b>	<b>4,613.2</b>	<b>2,156.2</b>
<b>National Total</b>	<b>137,765.6</b>	<b>39,118.3</b>	<b>4,984.8</b>
<b>% of National Total</b>	<b>13.3%</b>	<b>11.8%</b>	<b>43.3%</b>

SOURCE: John Urbanchuk analysis of EIA Preliminary Petroleum Marketing Annual 2007, Table 45, and Fuel Oil and Kerosene Sales 2006.

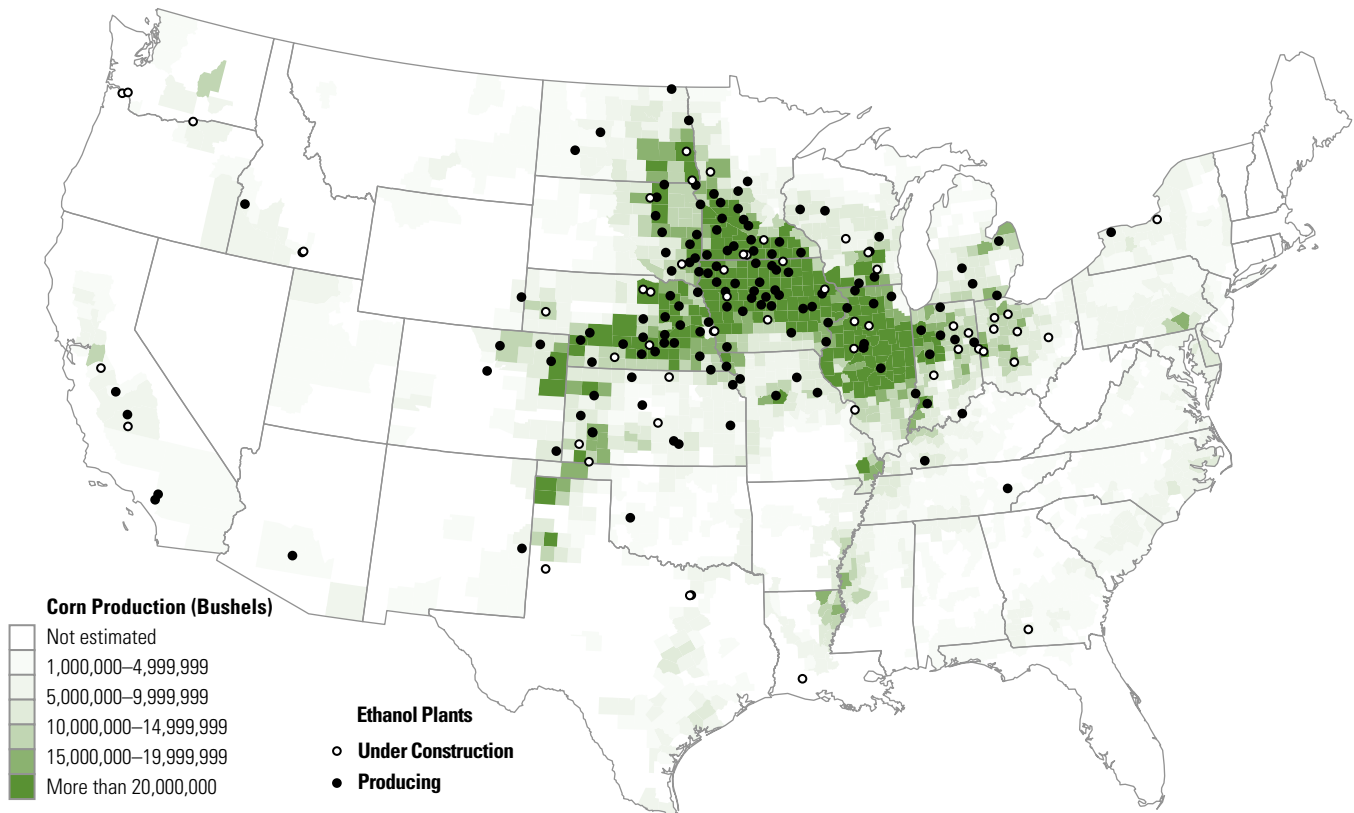
ment pressures throughout much of the region. Farmers find it economically difficult to expand production of traditional crops and thus difficult to support the current biofuels industry.

However, impending advances in technology will soon spawn the next generation of biofuels. Cellulosic ethanol and other fuels made from crop residues, perennial grasses, woody material, manure, algae and even municipal waste (see Figure 3) will help overcome the challenges associated with corn-based ethanol, such as nutrient leaching and degraded water quality. Biofuels also represent an opportunity to move farming in the region from a chronically low-margin sector of the local economy into an area of sustainable growth and value-added opportunities.

Extensive research is being conducted throughout the country to define the most efficient methodologies for producing cellulosic ethanol at a cost and volume that will meet market needs. As seen in Figure 4, there are currently 55 pilot plants and early commercial ventures under construction in the United States that will assist in

### Choosing Our Future

The Chesapeake region is the least invested in ethanol of any corn-growing region in the nation.



SOURCE: U.S. Department of Agriculture, National Agricultural Statistics Service, 2007



## FOCUS National Renewable Fuel Standard

The National Renewable Fuel Standard (RFS), established in the Energy Independence and Security Act of 2007, mandates annual increases to the U.S. production of biofuels. By 2022, biofuels will constitute 36 billion gallons, or about 20 percent of U.S. transportation fuels. These increasing annual goals are listed in the chart below. The Act also grants the Administrator of the U.S. Environmental Protection Agency the authority to temporarily waive part of the biofuels mandate if implementing the Act would severely harm the economy or the environment, or if there is an inadequate domestic supply to meet the requirement.

To date, ethanol derived from corn has been virtually the exclusive renewable fuel produced in the United States. The 2007 production level was approximately 8.5 billion gallons. The RFS calls for 15 billion gallons of this type of biofuel to be produced by 2015 and maintained at that level through 2022. After 2015, next-generation biofuels — which are slated to come on line in 2009 — will make up the remaining increase to total 36 billion gallons by 2022.

A variety of fuels are considered to be next-generation biofuels, including: ethanol made from cellulose, hemicellulose, lignin, sugar or starch (except for corn starch) or from waste material such as crop residue, animal waste, food waste, or yard waste; biomass-based diesel; biogas including landfill gas and sewage waste treatment gas; biobutanol; and other fuels derived from cellulosic biomass.

The RFS mandate, together with generous federal incentives and state participation, can help to position the Chesapeake region as a leader in cellulosic biofuels. With comparatively little investment in corn ethanol in the region, abundant stocks of cellulosic feedstocks, top university resources and other regional advantages, the Chesapeake region is poised for the front line of next-generation biofuel production.

### Renewable Fuel Standard

Phased-in schedule in billions of gallons

Year	Renewable Biofuel	Advanced Biofuel	Total Renewable Fuel
2008	9.0		9.0
2009	10.5	0.6	11.1
2010	12.0	0.95	12.95
2011	12.6	1.35	13.95
2012	13.2	2.0	15.2
2013	13.8	2.75	16.55
2014	14.4	3.75	18.15
2015	15.0	5.5	20.5
2016	15.0	7.25	22.25
2017	15.0	9.0	24.0
2018	15.0	11.0	26.0
2019	15.0	13.0	28.0
2020	15.0	15.0	30.0
2021	15.0	18.0	33.0
2022	15.0	21.0	36.0

FIGURE 3  
**Potential Biofuel Crops for the Chesapeake Bay Region**

Common Name	Latin Name	Biofuel Use	Comments
Alfalfa	<i>Medicago sativa</i>	cellulosic ethanol	
Algae	(Various species)	biodiesel, cellulosic ethanol	Grown in ponds or indoors
Barley	<i>Hordeum vulgare</i>	grain ethanol, cellulosic ethanol	Can be grown as winter crop
Camelina	<i>Camelina sativa</i>	biodiesel	Some areas of watershed
Canola	<i>Brassica juncea B.rapa, B.napus</i>	biodiesel	Can be grown as winter crop
Castor Bean	<i>Ricinus communis</i>	biodiesel	Some areas of watershed
Corn	<i>Zea mays</i>	grain ethanol	
Cuphea	<i>Cuphea</i> hybrid	biodiesel	Some areas of watershed
Miscanthus	<i>Miscanthus xgiganteus</i>	cellulosic ethanol	Double the biomass of switchgrass
Mustard	<i>Brassica nigra, B. juncea, Sinapis alba</i>	biodiesel	Double the oil of soybeans/acre
Peanut	<i>Arachis hypogaea</i>	biodiesel	Extreme southern watershed
Poplar	<i>Populus</i> hybrid	cellulosic ethanol	
Sorghum	<i>Sorghum bicolor</i>	grain ethanol, sugar ethanol	Some areas of watershed
Soybean	<i>Glycine max</i>	biodiesel	
Sugar beet	<i>Beta vulgaris</i>	sugar ethanol	
Sunflower	<i>Helianthus annuus</i>	biodiesel	
Switchgrass	<i>Panicum virgatum</i>	cellulosic ethanol	

Other biomass sources under consideration for advanced biofuels include wood chips, willow, forest slash, and mixed municipal waste.

SOURCE: National Arboretum "Power Plants," Agricultural Research Service, USDA, 2008

defining the technologies of the future for this industry. Six are under construction or planned for in Bay states: three in New York, two in Pennsylvania, and one in Maryland. Not all are in the watershed.

A collaboration involving the U.S. Department of Energy, Conoco Phillips, and Iowa State University is also developing cellulosic technologies that will use gasification, pyrolysis, and fermentation to produce fuels from corn stalks, stems, leaves, other non-food agricultural residues, hardy grasses and fast-growing trees. In addition to the production of cellulosic ethanol, emerging technology will soon support a wide range of biofuels including biobutanol, renewable diesel, and biogasoline and jet fuel (see Figure 5).

Government grants, loans, loan guarantees and tax credits — coupled with Renewable Fuel Standards (see Sidebar, page 9) and cutting edge research at universities and government labs — are also boosting the development of cellulosic biofuels. The U.S. Department of Energy is investing up to \$375 million in three new Bioenergy Research Centers that will accelerate the development of cellulosic ethanol and other biofuels, as part of the national "Twenty in Ten" initiative to reduce U.S. gasoline consumption by 20 percent within 10 years. The U.S. Department of Energy is also investing \$385 million for

six cellulosic bio-refinery projects over the next four years. When fully operational, the bio-refineries are expected to produce more than 130 million gallons of cellulosic ethanol per year.

The adoption of a low-carbon fuel standard in California to reduce the carbon intensity of the state's transportation fuel use 10 percent by 2020 will further advance the development of cellulosic biofuels. Other states may follow, only furthering the demand.

### Positioned to Lead

The Chesapeake Bay region is well positioned to take leadership in this revolutionary shift to greener, renewable fuels, and to enjoy its economic and environmental benefits.

A number of diverse feedstocks can be grown in the Bay region as sustainable crops for cellulosic biofuels throughout the year and transported at low cost to major East Coast energy markets. A large number of universities and research institutes in the region are already working on cellulosic biofuels, and many private companies are willing to partner and develop competitive technologies. This research will not only produce a variety of biofuels such as ethanol, butanol, biodiesel and biohydrogen,

FIGURE 4  
Cellulosic Refineries are Emerging in the U.S.

	Commercial Scale	Demonstration Scale	Pilot Scale
Completed	-	2	3
Under Construction	1	3	5
Planning Stage	21	14	6
<b>Total</b>	<b>22</b>	<b>19</b>	<b>14</b>

**Commercial-scale biorefineries** use at least 700 tons of feedstock per day to produce 10 to 20 million gallons per year of biofuel.

**Demonstration facilities** use approximately 70 tons of feedstock per day, yielding at least 1 million gallons per year.

**Pilot-scale** plants are generally smaller and are used to develop new methods and technologies.

Cellulosic Refineries in the Bay Watershed States

Facilities Under Construction			
Location	Scale	Size	Feedstock
Clearfield, PA	Pilot	5 tons/day of feedstock	Wood, agricultural residues
Madison, PA	Pilot	40,000 GY	Cellulosic waste, municipal solid waste
Rome, NY	Pilot	500,000 GY	Wood chips, paper waste
Planned Facilities			
Location	Scale	Size	Feedstock
Lyonsdale, NY	Pilot	183,000 GY ethanol & 5 MGY jet fuel	Wood Chips, willow, low-grade timber
Middletown, NY	Demo	8 MGY	Municipal solid waste
Curtis Bay, MD	Demo	3.5 MGY	Marsh grasses, waste material

GY = gallons/year MGY = million gallons/year

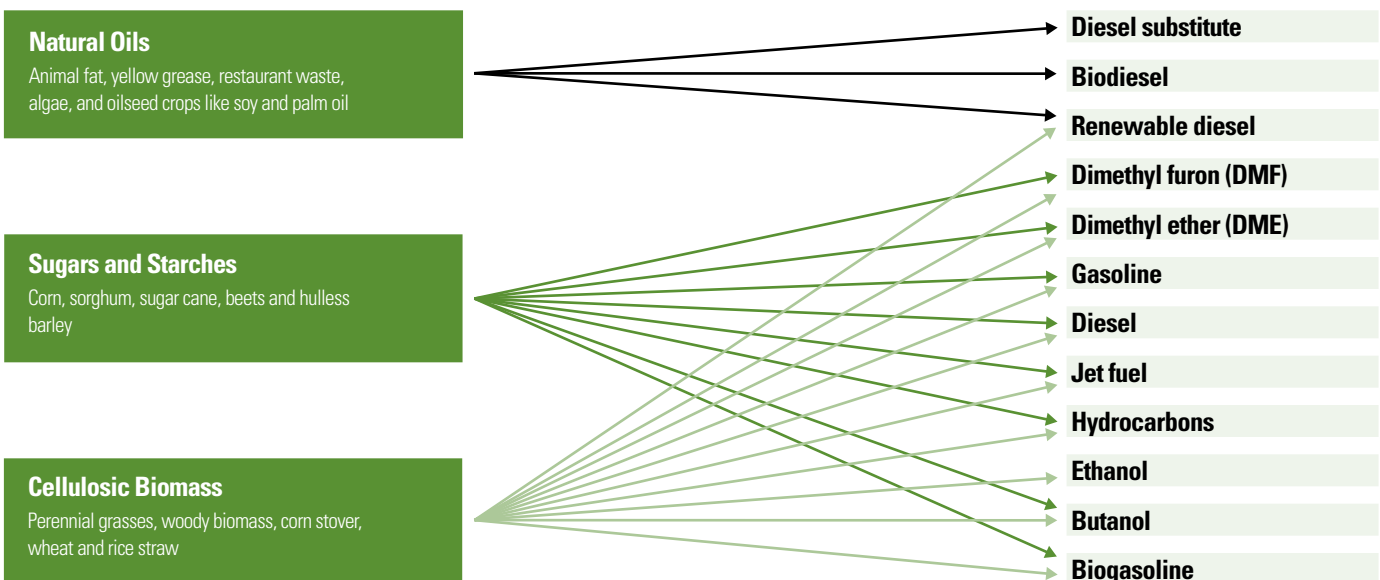
SOURCE: Environmental and Energy Study Institute, July 2008; EESI includes the use of municipal solid waste in their feedstocks for a cellulosic refinery.

but also by-products that will have extra value for use in polymers, animal feed supplements and as substrates in the cosmetic and supplemental nutrient business (see Sidebar, page 13).

Significant additional investment will be needed to commercialize and expand these next-generation technologies, which are not without challenges. Unlike converting corn and other grains to ethanol, cellulosic materials require significant pretreatment or mechanical

preparation before the conversion (see Figure 6). Therefore, the capital costs for launching cellulosic production facilities will be higher. Emerging opposition to first-generation biofuels by the petroleum, livestock, poultry and food manufacturing industries could challenge the resolve of the federal government to support the development of next-generation biofuels. This risk is exacerbated by the impact of the global credit crisis, which has caused limited access to capital.

FIGURE 5  
Biofuels: Think Beyond Ethanol

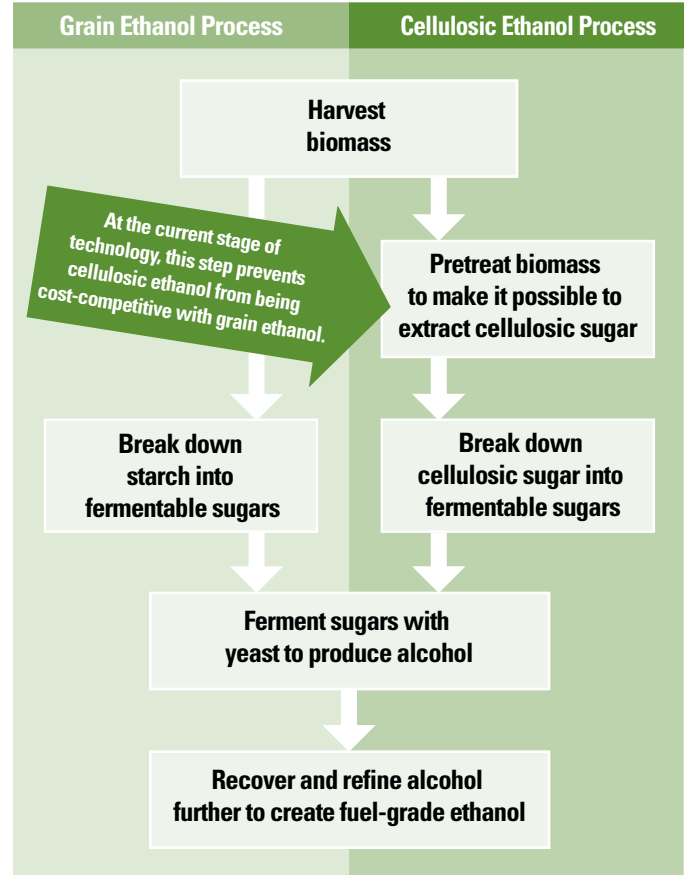


SOURCE: Chesapeake Bay Commission, 2008

Nevertheless, the biofuels sector has benefited from ready access to capital markets, thanks in part to supportive government energy policies. And the cost associated with next-generation start-up facilities has not deterred interest: the potential production volume and significant positive environmental results continue to attract skilled researchers and investors. Overall, the growth of venture capital investments in renewable energy technology has grown exponentially — jumping to \$3.4 billion in the United States in 2007 and more than tripling the amount invested two years earlier. On a global scale, investments grew by 60 percent in 2007 and climbed to nearly \$150 billion.

Assuming a level of continued investment in the region, the new conversion technologies will create opportunities for crops and woody biomass that can be specifically adapted for growth in the region as biofuel feedstocks, especially on marginal lands not suitable for producing more traditional crops. According to analysis by the Chesapeake Bay Program, at least one million acres of these lands are available in the watershed. Additionally, cellulosic feedstocks lend themselves to the types of best management practices that serve to lower carbon dioxide emissions and mitigate nitrogen, phosphorous and sediment impacts on water quality.

FIGURE 6  
**Grain-Based vs. Cellulosic Ethanol Production:  
Moving From Feedstock to Fuel**



SOURCE: Chesapeake Bay Commission, 2008

## FOCUS Co-Products, By-Products & Residues

### Making the Most of an Integrated Bio-refinery

**Dr. Tom Richard, Penn State University**

A bio-refinery exists to produce fuel. But the decision to launch a bio-refinery — and the ability to make it profitable — may equally depend on the plant's co-products, by-products and residues.

Co-products are jointly and intentionally produced marketable products (for example, lumber and plywood from trees). By-products are ancillary and of considerably less value than the primary products (to continue the example, sawdust). Residues are recovered wastes whose markets are weak and sometimes negative (paper-mill sludge).

These distinctions begin to blur in well-integrated systems, often moving materials up the value chain from residue to by-product or even co-product. Sawdust, for example, was once a waste or residue, but is now a byproduct with increasing value, especially as it is converted to pellets to be burned as an energy source in pellet stoves.

A profitable bio-refinery will need markets for co-products, by-products and residues. When feedstock prices rise or fuel prices fall, income from these products often makes the difference between profit and loss. In fact, sales of some by-products are cited as one of the drivers for ethanol plants now being built in the Chesapeake region. These include dried grains and solubles, which are largely used as animal feed, and carbon dioxide, which supports the food industry by putting the “pop” in carbonated beverages.

Next-generation bio-refineries will generate their own suite of co-products, by-products and residues. Cellulosic fermentation, for example, will produce carbon dioxide and lignin as the primary co-products. That lignin might be burned or gasified to produce heat, power and possibly liquid fuels. Even the residual ash contains minerals such as calcium, phosphorous and potassium, and has value as a fertilizer or admixture for concrete. Microbial biomass, another residue, could be burned, marketed as livestock feed or perhaps used as a fertilizer.

One particularly interesting by-product, derived from a processing technique known as pyrolysis, is the residual char. This char significantly improves soil quality and can be used to recycle nitrogen and other nutrients back to agricultural crops. Recycling char may increase the potential for biomass harvests, while enhancing the long term sustainability of the entire system.

Supporting the research and developing the markets for these types of products not only makes for an efficient use of resources, but may provide investors with a more enticing and profitable entry into the biofuels industry.

# The Chesapeake Cellulosic Biofuels Project: A Grand Vision

In accepting its charge from Governor Rendell and the Chesapeake Bay Commission to make the Chesapeake region a leader in sustainable next-generation energy, the Biofuels Advisory Panel developed the following vision statement:

**The Chesapeake Bay region will lead the nation in the evolution of sustainable cellulosic and advanced biofuel production.**

The words of this statement were chosen carefully. First, “evolution” recognizes that next-generation biofuels are not possible without the utilization of first-generation technologies. Specifically, the Advisory Panel recognized that corn ethanol is a necessary national foundation for the development of infrastructure and markets that will make next-generation technologies commercially viable (see Sidebar, page 15).

Second, “sustainable” refers to environmental, economic, and social factors and has been defined by the Advisory Panel to include practices that result in:

- The reduction in nutrient and sediment loadings to the Chesapeake Bay and its rivers;
- Net energy benefits;
- Net greenhouse gas reductions, both direct and indirect;
- Neutrality or benefits with respect to food security and cost;
- Net social and economic benefit to affected local communities; and
- No net loss of biodiversity and natural resources, including both water quality and quantity.

Third, the reference to “cellulosic and advanced biofuel” highlights the unique potential cellulosic biomass presents to the region, but encourages a flexible approach to policymaking that is favorable to the development of multiple next-generation biofuels.

To achieve its vision, the Advisory Panel adopted a guiding principle and set of objectives which was used to inform all subsequent panel decisions (Sidebar, page 17).

## The Listening Sessions

During May 2008, the Advisory Panel of the Chesapeake Cellulosic Biofuels Project reached out to a diverse collection of stakeholders, conducting four listening sessions throughout the Bay watershed. The purpose of the listening sessions was to provide updates on goals, deliverables and timelines, and to obtain feedback on the assumptions,

## FOCUS Corn Ethanol

### The Foundation for Tomorrow's Biofuels

Nearly all biofuel plants operating in the United States today are producing ethanol by using corn as their primary feedstock. As of July 8, 2008, the Renewable Fuels Association reported that 161 ethanol plants are currently in operation and another 49 are either expanding or under construction. When fully operational, these 210 plants will have the capacity to produce 13.6 billion gallons of ethanol annually, which could displace nearly 10 percent of the nation's transportation fuel. Ethanol production in 2007 was approximately 8.5 billion gallons.

Corn ethanol, however, has faced political, environmental and economic challenges. It has been subject to much criticism for its water quality impacts, net energy benefits and competition with the food supply. The Chesapeake region imports more corn than it produces due to the extensive demand for livestock and poultry feed, so there has been a great deal of concern over the increased cost of corn and the extent to which this is due to ethanol competition. There is also interest in assuring that any augmentation of local corn production does not increase risk to water quality. Bay states must step up their dedication to the aggressive use of best management practices to mitigate the potential for additional nutrient runoff associated with increased corn acreage.

Nonetheless, corn ethanol production remains the foundation of the nation's expanding biofuels industry. While the federal government is investing millions of dollars to accelerate the commercial scale development of cellulosic ethanol and other alternative biofuels, the cumulative investments, research, skilled employees and infrastructure associated with corn ethanol production have created a solid platform for producing large quantities of home grown fuels that stimulate local economies and reduce our dependence on foreign oil.

Corn ethanol also provides a foundation for testing and evaluating new feedstocks, as well as biomass pretreatment and conversion technologies. These critical contributions will aid in the transition to a new generation of transportation and home heating fuels. In addition, many cellulosic ethanol and other next-generation biofuel plants will likely be co-located with existing corn ethanol plants. Much of the infrastructure for storing, processing and transporting feedstocks and fuels is already in place or under construction, thus reducing some of the technological and capital risks associated with cellulosic biofuels.

vision and principles that would serve as the building blocks for the Advisory Panel's recommendations. Collectively, the sessions also proved to be an important forum for establishing and strengthening relationships with stakeholders who will influence the evolution of biofuel development in the watershed.

While each listening session was unique, they elicited five shared perspectives from the participants:

1. *Strong support exists for regional collaboration.*  
There was widespread agreement that next-generation biofuels will present an opportunity to improve the economic viability of agriculture and forestry in the region, while simultaneously improving water quality and benefiting living resources in the Chesapeake Bay.
2. *Cellulosic feedstocks will soon be in demand.* While market conditions will determine which feedstocks are grown in the region and where, participants in the listening sessions believe that the next generation of feedstocks will include cellulosic materials like corn stover, straw and other crop residues, winter annuals (especially barley and canola), perennial grasses, forest trimmings, wood residues, short-rotation woody biomass crops and municipal waste.
3. *The Biofuels Project should advance cellulosic biofuels as a whole, rather than focusing solely on cellulosic ethanol, and support next-generation conversion technologies that match the region's feedstocks.*
4. *The greatest asset for the development of a biofuels industry in the Chesapeake region is the extraordinary expertise among its many renewable energy advocates.* The intellectual capital demonstrated during the listening sessions shows that the region can create a model for the nation. Our farmers and other renewable energy leaders are committed to controlling nutrient runoff from their lands and understand the implications of crop decisions on the Bay and its rivers. This knowledge is being leveraged to create a regional, diversified portfolio of biofuels that capitalizes on the local potential while optimizing benefits for the environment.
5. *Whatever actions are taken with respect to next-generation biofuels, the results must be economically, socially and environmentally sustainable.* In part, this perspective was a reaction to the recent negative publicity surrounding grain-based ethanol. It was also a reflection of the Chesapeake Bay Commission's report, *Biofuels and the Bay*, which indicated how production of grain-based ethanol crops could use proven management practices to actually improve water quality and the Chesapeake.

## Crafting a Regional Roadmap

Drawing on input from the listening sessions, as well as its own expertise, the Biofuels Advisory Panel identified three major areas in which action is required to make this region a national leader in the evolution of cellulosic and advanced biofuels:

*Feedstocks:* The Chesapeake region is blessed with the land and climate to produce a significant amount of cellulosic biomass. To establish this promising industry, we must assure the production of a large, reliable and accessible supply of biomass.

*Natural Resource Protection:* As shown in the *Biofuels and the Bay* report, the production of certain biomass crops has the potential to not only sustain water quality but improve it. However, that potential depends on the types of biomass used, where they are grown, and the best management practices that are put into place.

*Marketing and Infrastructure:* With no existing commercial biofuel plants in the Bay region, there are both opportunities and challenges for production capacity, distribution of feedstocks and biofuels, and marketing of biofuels and their co-products.

We recognize that many of the decisions related to the development of the cellulosic biofuels industry are in the hands of private investors and producers, but the public sector can also play a role in overcoming certain market weaknesses. In fact, our goal of economic, environmental, and social sustainability can best be achieved through the cooperative efforts of both the public and private sectors.

The recommendations below are suggestions for sustainable cellulosic biofuels policies that make sense for this region at this time. Some are best dealt with in the near term, while others set out long-term objectives for the region. Because individual recommendations may address more than one of the above subject areas, they are instead categorized by those actions that require regional cooperation or could be taken within individual states.

Opportunities for state-level policy or legislation appear under both regional recommendations and state recommendations. Specific actions that could occur at the state level and address these opportunities are identified and succinctly summarized in Appendix I.

The following recommendations will not apply equally to all six states, because some states have already taken actions on a few of these recommendations. To assist the states in their policy analyses, a comprehensive list of the current biofuels-related policies of the six Chesapeake watershed states is provided at [www.chesbay.state.va.us](http://www.chesbay.state.va.us).



# The Panel's Guiding Principle and Objectives

Before launching their effort, the Biofuels Advisory Panel agreed to an overarching principle to guide their work, along with a set of objectives that would execute their vision.

## Guiding Principle

It is necessary to support the successful attainment of the Chesapeake Bay region's biofuels goals while simultaneously reducing nutrient and sediment loadings and strengthening the economic viability of agriculture and forestry in the watershed.

## Objectives

To accomplish these multiple objectives we will:

- Encourage regional collaboration among research institutions, stakeholders, government agencies and policy makers.
- Advance policies and programs that are economically viable, environmentally sound and socially acceptable.
- Support research to find new alternative biofuels that maximize energy output while minimizing environmental impact.
- Capitalize on the region's unique assets including diversity in technology, intellectual capital, ability to sustainably produce feedstocks and proximity to markets.
- Effectively engage land owners and managers, planners, community leaders and other stakeholders in the development of recommendations.
- Maintain the capacity to produce safe and abundant quantities of food, feed and fiber.
- Efficiently and effectively leverage government resources while encouraging private investment.

## FOCUS Algae: Fuel of the Future?

### **Dr. Jennie Hunter-Cevera, University of Maryland Biotechnology Institute**

The Mid-Atlantic region is rich in water, sunlight and carbon dioxide. Unfortunately for the Chesapeake Bay, we are also rich in the capacity to grow algae. However, what has long been the bane of the Bay may one day be an ally in its restoration. Scientists are investigating how algae-based biofuel conversion systems may provide a significant opportunity for future fuel production, much like cellulosic biofuel but with a greater yield.

Research has demonstrated that biofuels produced from algae could potentially supply enough fuel to meet all of America's transportation needs by using a scant 0.2 percent of the nation's land, an area equivalent to that of Maryland. Water, sunlight, nitrogen, phosphorus and carbon dioxide are the basic ingredients to grow algae. Demonstrations have shown that algae may double their volume overnight under optimal conditions and be harvested day after day. The oil produced by algae, up to 50 percent of their weight, can then be harvested and converted into biodiesel. The algae's carbohydrate content can be fermented into ethanol.

Algae crops and conversion techniques may result in a cleaner-burning fuel than petroleum-based diesel or gas. It is conservatively estimated that a properly managed algae growing system could produce from 2,000 to upwards of 5,000 gallons of liquid fuels per acre per year. Current annual crop-based biofuel production is approximately 20 gallons per acre from corn; 50 gallons per acre of soybeans; 150 gallons per acre from canola; and 650 gallons per acre from palm.

There are an estimated 65,000 to 100,000 known algae species. Hundreds of thousands more species may still be identified and cultured. Algae do not require soil and can grow well in brackish water. In the desert southwest, where much of the groundwater is saline and unsuitable for other forms of agriculture, algae can proliferate. Algae require 1/100th of the water per acre compared to other crops, and the carbohydrate and protein elements can be used for other purposes including feed and fertilizer. Algae are low maintenance and their ability to ingest carbon dioxide and excrete oxygen is attractive; it serves as an important means for mitigating the buildup of carbon dioxide in the atmosphere due mainly to fossil fuel emissions.

Using algae as an alternative fuel is not a new idea. Between 1978 and 1996, the U.S. Department of Energy performed algal biofuel research at their National Renewable Energy Laboratory in Golden, Colorado. Field trials with open ponds in California, New Mexico and even Hawaii were performed.

Difficulties encountered included land area requirements, evaporation of water and contamination by invasive plant species and other life forms in the ponds. Ultimately, the oil produced from algae was not economically competitive in 1996, when the price of a barrel of oil was \$20.00.

In 2007, in response to the change in oil prices and the call for energy independence, the Energy Security and Independence Act included language promoting the use of algae for biofuels, and triggered a renewed interest in the technology. From Maine to Florida, Virginia to California, Canada to Mexico and overseas, there are government, academic and industry researches working toward a reliable and reproducible source of algae-based biodiesel fuel to meet air and land transportation needs. But there are obstacles to overcome, especially production costs. Algae biodiesel costs have to compete with both traditional petroleum-based diesel and other alternative biofuels. As of yet, no one has demonstrated the ability to achieve this at either a commercial or demonstration scale.

Issues with large-scale algae farms or facilities include “balance within the system.” The water needs to be just the right temperature for algae to proliferate. Ponds can become overgrown with unwanted plant and animal species, and atmospheric levels of CO<sub>2</sub> are often not high enough to spur exponential growth. Although algae usually produce more oil when they are starved, they do not reproduce themselves at high rates under starvation conditions. Additionally, ponds have a limited amount of surface area for solar absorption.

Potential solutions include new and novel equipment and structures to begin the widespread mass production of algae; better monitoring tools for quality assurance; and improved harvesting and conversion techniques. Infrastructure costs with regard to equipment and controls are viewed as the biggest obstacle in making algal biofuels affordable and reliable. The bottom line rests on scale-up costs. Can a commercial-scale algae facility produce biodiesel at a cost competitive with petroleum or other biofuel sources?

Solutions are being explored by many different firms using vertical growing systems, bioreactors, solar tubes and flue gas-fed systems, as well as other growing media using effluent and run-of-river systems to reduce the volume or space needed to grow algae. Many more exciting and novel solutions are routinely being tested.

Scientists are even experimenting with growing algae at wastewater treatment plants, including in the Bay region. Turning sewage waste into biodiesel could be a promising means to making fuel while also eliminating a significant contributor to the Bay’s water quality problems. The algae could assist in the sewage treatment process by taking up the nutrients in the wastewater so less nitrogen and phosphorus could be discharged to the Bay — and biodiesel could be produced from the algae.

With this significant amount of research activity, algae systems could soon be deployed in a widespread manner. The talent and other resources available in the Chesapeake region, including algae, provide a competitive advantage. Continued mindful investments in ongoing research, establishment of key partnerships, and proof-of-concept production trials on large scale projects are clearly the next steps in making algal biofuel a significant choice for our alternative fuel needs.

# Recommendations for Regional Action

**1** Coordinate regional action to secure federal funding. New opportunities have arisen in the federal Food, Conservation, and Energy Act of 2008 (“the Farm Bill”) and the Energy Independence and Security Act of 2007 (“the 2007 Energy Act”). In addition, the Department of Energy (DOE), via the Energy Policy Act of 2005 and other DOE programs and the Department of Defense (DOD) present significant research and development funding opportunities.

*Sections of the two Energy Acts and of the Energy and Conservation titles of the Farm Bill provide opportunities to facilitate the development of next-generation biofuels. But their complexity and funding status as authorizations, mandatory programs and programs needing appropriations all call for ongoing cooperation among the states of the Chesapeake region to assure maximum access and utility of the funds. Bay states should establish a cooperative group to sort through the various provisions and work together to secure funding for biofuels development.*

**Background:** The 2008 Farm Bill provides a wide range of new programs related to biofuels (see Appendix II). Particular focus should be on:

1. The provisions of the Energy Title related to the Transition Assistance Program for farmers, as well as grants and loan guarantees for biomass energy systems that can help close the funding gap for small, first-stage facilities; and
2. The provisions of the Conservation Title related to the Bay watershed, as well as harvest guidelines for cropland enrolled in the Conservation Reserve and Conservation Reserve Enhancement Programs.

In addition to the Farm Bill, there are provisions to assist biofuels development in both the 2005 and the 2007 Energy Acts. The new biofuel-related provisions included in the 2007 Energy Act are summarized in Appendix III. The DOE is dedicated to finding a solution to transportation fuels through cellulosic feedstocks. In addition, the DOD is focused on converting battlefield trash of all types (e.g. shipping pallets, mess hall waste and other refuse) into energy.

The combination of all these provisions needs to be understood and mapped out for the region in a cooperative undertaking by Bay states to most effectively access and support these programs.

## 2 Coordinate regional input on U.S. Department of Agriculture (USDA) conservation programs to promote sustainable feedstock production and harvest.

*States should ensure that areas under USDA Conservation Reserve and riparian buffer programs may be used for biofuel feedstock production where it is possible to guarantee that the conservation purposes of those programs remain in effect.*

**Background:** The growing demand for biofuels and the move to cellulose-based biofuels could potentially result in the conversion of important resource lands to cropland for feedstocks. In particular, there is concern about the loss of lands enrolled in the Conservation Reserve Program and the Conservation Reserve Enhancement Program, as well as lands in use as forest and other riparian buffers under state programs. While it may be possible to combine the use of such lands for some biofuel crops and still meet the goals of conservation reserves and buffers, guidelines for planting and harvest should be clear and compliance assured.

In turn, appropriate use of biofuel crops may provide an added incentive for participation in these programs, thus expanding and enhancing them. States should collaborate with each other and with the USDA to establish guidelines for planting, fertilizing and harvesting feedstocks consistent with the conservation programs when such lands are being proposed for biofuel use.

## 3 Discourage use of invasive non-native feedstocks.

*States in the Chesapeake region should agree to a long-term protocol that discourages the introduction and use of invasive non-native species as feedstocks for the next generation of biofuels.*

**Background:** Some of the species that may come under consideration for use as biofuel feedstocks may not be native to the Chesapeake region and may not have been grown here before to any extent. Given the experience with previously introduced non-native species that escaped cultivation to become invasive, care should be taken to evaluate the potential of a species introduced as a biofuel feedstock to become invasive. Where uncertainty exists, states within the region should collectively agree to with-

hold public funding for the planting or conversion of these species for biofuels, and to evaluate current regulations for their adequacy to protect against unintended consequences from establishment of these species.

## 4 Encourage local or on-farm use of biomass.

*The use of biomass for combustion and gasification at the local or farm level should be encouraged. This sustainable practice, valuable in its own right for meeting energy goals, also helps build the market and infrastructure for next-generation biofuels from the same types of feedstock.*

**Background:** Considerable progress has been made in the Chesapeake region using wood, switchgrass, straw and other feedstocks for local heating and energy generation through combustion and gasification. Pennsylvania has a program known as Fuels for Schools and Beyond, which works with schools, hospitals and businesses to convert heating systems to such fuels. These are proven technologies with long-term viability. They happen to use feedstocks that hold potential for next-generation biofuels and as such are helping to build the market and infrastructure for expanded production. But they are viable in their own right and should be encouraged so that biofuel applications of the feedstocks are in addition to and not in place of their development.

## 5 Develop a regional carbon trading strategy that addresses the role of biofuels.

*A regional strategy should be developed to maximize opportunities from a federal carbon trading protocol and provide guidance for the role of biofuels in the carbon trading market. The strategy should be advocated to the region's Congressional leaders.*

**Background:** The production of feedstocks for cellulosic biofuels can also help to sequester significant amounts of carbon and reduce greenhouse gas emissions. In a carbon trading market, this ecosystem service could generate carbon credits that would add another significant economic benefit to the region and further the growth of

forestry, agriculture, and advanced biofuels industries. The ability of best management practices to generate marketable credits will also provide incentives for their implementation.

However, these benefits will only be realized if the federal protocol acknowledges the types of carbon and other greenhouse gas reductions likely to be provided by sustainable farming and forestry practices in our region, including the full comparative life cycle effects of biofuel production. The benefits of biomass production and conversion in the watershed must be quantified and clearly communicated to the region's Congressional delegation in order for them to become advocates for the region's capacity to reduce greenhouse gas emissions and to assure inclusion in any federal legislation.

A starting point for Bay states is to develop state-level greenhouse gas registries that quantify all carbon sequestration and emission offset opportunities in the agricultural and forestry sectors, including offsets for the carbon dioxide (CO<sub>2</sub>) generated during the production of ethanol. Other potential offsets include the use of CO<sub>2</sub> as a substrate by algae to produce biodiesel, the pumping of CO<sub>2</sub> into greenhouses to promote growth of specialty crops or greenhouse plants, or the sequestration of carbon in large amounts by certain microbes which are then utilized as an additional feedstock source.

## 6 Coordinate as a region to affect national energy policy.

*National policy must establish an even playing field for advanced cellulosic biofuels, and regional leaders should work with their Congressional delegation to ensure this is a priority. Similar work should occur with state legislatures to achieve such fairness in state laws. Particular attention should be paid to even-handed treatment for all fuels.*

**Background:** Much of the debate over biofuels relates to their associated subsidies and tariffs enacted by Congress, most recently in the 2008 Farm Bill and in debates over the future of the Renewable Fuel Standard (see Sidebar, page 9). At the same time, counter-arguments have been made that petroleum, coal and other traditional energy sources benefit from their own set of subsidies, tax breaks and other advantageous laws that must be considered before removing biofuel subsidies.

While the arguments on both sides have merit, this issue needs to be resolved by Congress and state legisla-

tures. This recommendation, recognizing that there are important traditional fuel interests in Bay states, calls for maintaining biofuel subsidies until such time that these fuels become cost effective and can compete in the market place with petroleum-derived fuels.

## 7 Establish a regional analytical framework for biofuels development.

*A regional biofuels analytical framework is needed to estimate how the industry will evolve, with regular updates that address regional feedstock capacities, competing uses, potential limitations such as water supply, economic diversity, infrastructure needs, and the potential benefits to the economy and state revenues. An advisory group of outside experts should be established to support this effort.*

**Background:** Most land use decisions in the region are made by county or municipal governments, whose regulations often do not address biorefineries. Instead, local governments will most likely apply existing chemical manufacturing subdivision regulations, thus effectively preventing biorefinery construction.

Furthermore, nationwide, there is a high level of confusion, disagreement and controversy related to the development of biofuels. This has been illustrated in recent proposals to suspend or roll back the national Renewable Fuel Standard due to the alleged impacts of corn ethanol on food prices. There is no reason to believe that the level of conflict will be any less or the battles any fewer as next-generation biofuels enter the picture, although the primary adversaries may shift from food and feed producers to legacy energy and transportation fuel providers.

This makes it extremely important for decision-makers to be buffered from misinformation and inaccurate claims and to have access to current, accurate information on the actual and anticipated industry conditions. A regional analytical framework should be developed under the guidance of a panel of advisors to provide this level of security, possibly through engagement of a Chesapeake Bay Program Action Team. Because the industry and the global factors that impact it are dynamic, the analysis should be updated as needed to reflect changing conditions. This will provide state executives, lawmakers, investors, farmers and foresters with a common and up-to-date understanding of likely pathways and timeframes, and prevent over-reactions to short-term controversies that affect the biofuels industry.

## 8 Establish a regional strategy to encourage greater use of higher blends of biofuels.

*As higher blends of biofuels become available, states in the Chesapeake region should work with the private sector to maximize their availability and use. The strategy could include incentives and warranties to encourage sales of vehicles that use higher blends, the installation of blender pumps and the guarantee of access to higher blend biofuels along major interstate highways or within heavily-populated areas.*

**Background:** More and more vehicles are being manufactured to use higher concentrations of ethanol and biodiesel, while those fuels are currently widely available at ten and five percent mixes only. In order to help make 85 percent ethanol blends and up to 100 percent biodiesel mixes more reliably and readily available to drivers who can use them, there are a number of steps that could be taken regionally; other state-specific actions are outlined below. A regional strategy would be most useful in encouraging the manufacture and sale of vehicles that can use higher blends, developing blender pump technologies, and establishing biofuels corridors or pump concentration areas. The first such corridor will open this year along I-65 from Indianapolis, Indiana to Mobile, Alabama.

## 9 Establish regional research priorities for next-generation biofuels.

*A regional agenda of research priorities should be developed with the participation of private sector biofuel interests, the regional biotechnology industry, government and the university-based biofuel research community.*

**Background:** There is an ever-broadening research agenda for biomass production and advanced biofuel formulation and processing. While much of this is proprietary work done by investors, there are important issues that can be addressed by a more open collaboration of biotech industries and publicly-funded research institutions. The Chesapeake region has an enviable concentration of biotech companies and university and government research and extension capabilities that should be brought to bear, especially on issues of regional benefit. Key priorities for the Bay watershed consist of

Research, Development and Demonstration projects to conserve and enhance natural resources, including:

- Nutrient reduction and carbon sequestration capabilities throughout the biofuels production system;
- Improved varieties of next-generation biomass feedstocks, tested through small-scale trials;
- The potential of algae, manure and urban wastes as feedstocks;
- Effective and environmentally acceptable harvesting and collection systems;
- Integration of best management “systems” for biofuel production from farms and forests;
- Soil carbon models to allow producers to compute how much crop residue can be collected without degrading soil quality;
- Systems and practices for harvesting, collecting, transporting and storing biomass energy feedstocks;
- Estimates of water needs and availability for feedstock production and refining;
- Ability to use acid mine discharge in biofuel manufacture;
- Impacts of climate change on biofuel feedstock production capabilities in the region;
- Increased utilization of distillers grains (assuming local grain-based ethanol production) and other bio-refinery co-products;
- Life-cycle analysis of complete biofuel systems;
- Planting of underutilized farmland and reclaimed mine lands; and
- Technology capable of processing multiple and mixed feedstocks into biofuels and by-products.

## 10 Implement a regional outreach effort to promote next-generation biofuels.

*A coordinated regional outreach effort should be established to ensure that the national and worldwide biofuels markets are fully informed about the natural assets and advantages of the Chesapeake region for the next generation of biofuels, namely:*

- *The climate and soils to grow a wide diversity of feedstocks;*

- *Great variety in landscapes and land types for growing feedstocks;*
- *An underutilized forest products capacity;*
- *A reliable supply of municipal solid waste;*
- *The potential for refining facilities of all scales located near feedstocks;*
- *Ready integration of biofuel production with animal agriculture;*
- *Close proximity to petroleum blenders and markets;*
- *A thriving biotechnology industry; and*
- *An excellent university-based biomass research infrastructure.*

**Background:** It was surprising to discover how little investment in advanced biofuels has been made within the Chesapeake watershed, considering that federally supported biofuel crop and refining projects are operating in many other regions. In the future, when advanced biofuels become more clearly profitable for private investment, the region will be in the position to provide a great number of advantages, as set out above. Much of the documentation of these advantages already exists, such as that produced by the Northeast Sun Grant Initiative. A concerted effort is needed to notify potential investors that the region offers excellent conditions for a number of crops and facilities for these new biofuels, including algae, wood-based feedstocks, and municipal waste.



# Recommendations for State Action

## 1 Proactively communicate consistent messages about the benefits of next-generation biofuels, including cellulosic biofuels, and the importance of their sustainable production.

*Convey an awareness that biofuels are happening now, and that their development can happen in a way that maximizes the benefits to farmers, foresters, the general public, the state and the environment.*

**Background:** At present, there is a high level of confusion among the general public over the costs and benefits of biofuels and their development. As state policies and programs regarding biofuels are developed and implemented, each citizen deserves a clear statement from state leadership that outlines likely developments, their implications, and strategies that can maximize the benefits and reduce the costs to states and communities.

Because decisions regarding land use, industry investment, and feedstock production are made at the local level, the need for consistent messaging is more critical at the state level than it is regionally. There should be an estimate of the likely scale of development, the impacts on land from next-generation feedstocks, and the effects on communities from investments in refining and transportation.

In preparing these messages, states should draw on the resources of national organizations such as the Ethanol Promotion and Information Council, the National Biodiesel Board, the Renewable Fuels Association, and the U.S. Department of Energy's Clean Cities Program.

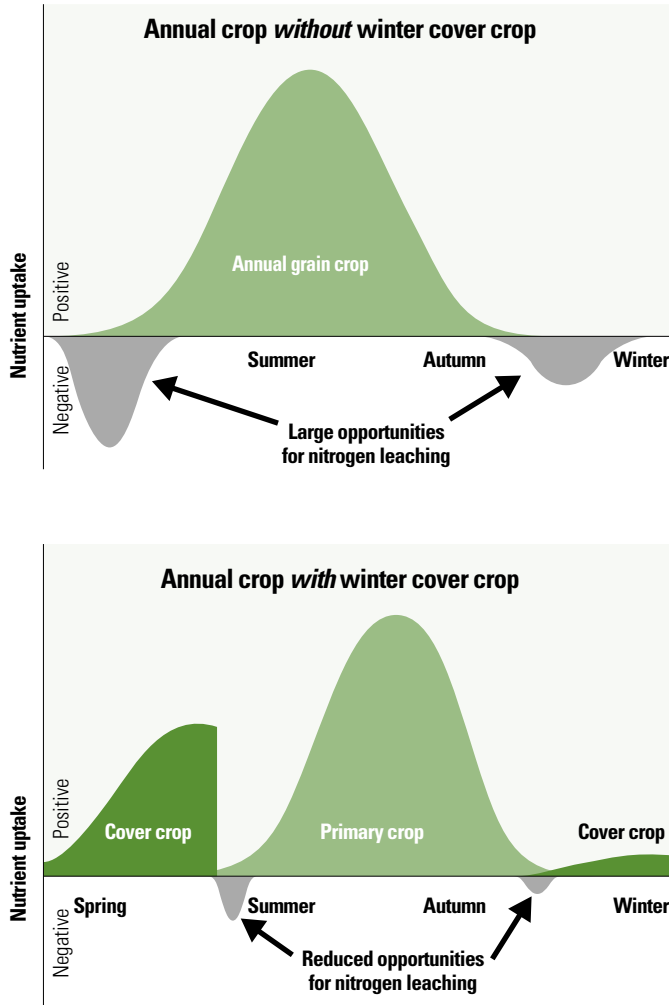
## 2 Encourage winter biofuel crops as first-generation feedstocks during the transition to advanced biofuels.

*Traditional and newly developed winter crops, such as hulless barley, should be encouraged as biofuel crops that support existing combustion, grain-based ethanol and biodiesel technologies. They can also be managed to provide many of the benefits of cover crops, including erosion control and absorption of excess nutrients from previous row crops.*

**Background:** Transition to next-generation biofuels from grain-based ethanol will not be instantaneous, and anything that can be done to augment farm income and reduce environmental impacts in the interim should be encouraged. Two biofuel crops that achieve this dual

FIGURE 8

### Maximizing the Potential for Biomass Production and Uptake of Nutrients



SOURCE: Andrew H. Heggenstaller, Iowa State University

goal are barley and canola. Both can be grown as winter crops. If managed to optimize fertilizer efficiency, they can also act as cover crops that reduce erosion and nitrogen leaching from the field (see Figure 8). Barley can be used for grain ethanol or combustion and (eventually) its straw can be processed into cellulosic ethanol. Canola is the most popular crop for biodiesel in Europe. States should work with their Cooperative Extension offices, Conservation Districts and other technical assistance providers to modify programs or develop new programs to help this happen.

## 3 Assure broad and effective use of best management practices for growing and harvesting feedstocks.

*Geographically-relevant conservation best management practices (BMPs) should be established for the planting and harvesting of biofuel crops, including crop residues and forest crops.*

**Background:** Given the possible environmental effects and opportunities presented by converting substantial land areas to cropland for feedstocks, states in the region need to establish systems to maximize nutrient reduction, preserve wildlife habitat and achieve other goals for Bay restoration. Some of these actions will address how land is chosen and crops are grown. Others will focus on the use of fertilizer and other nutrients, while still others will deal with the management and protection of highly erodible land and other sensitive areas.

Each state will need to determine the mix of requirements and incentives to achieve the benefits of these BMPs, recognizing that farmer and forester interest in biofuels production may be an important catalyst for conservation. At a minimum, adequate funds need to be appropriated at the state level and provided by the federal government to establish or expand BMP cost-share programs as well as conservation education and technical assistance support. States should also consider establishing residue management assistance programs designed to help farm and forest land managers and owners properly harvest, store and transport cellulosic feedstocks for biofuel production.

## 4 Establish or update state removal guidelines for crop residues and forest slash and provide incentives for their adoption.

*Crop residues such as corn stover and forest slash hold great promise as feedstocks for cellulosic and other next-generation biofuels, but there are concerns about the effects of their removal on long-term soil quality, erosion control, wildlife habitat and nutrient loadings to streams and the Bay. Consequently, removal guidelines should be established to reflect soil type, climatic conditions and land configuration, among other factors. In cases where existing guidelines were established before the demand for biomass feedstocks was a factor, such guidelines should be updated.*

**Background:** There is a high level of interest over the potential of corn stover and forest slash as feedstocks in this region for cellulosic and other next-generation biofuels. Some corn stover is used for animal bedding and some for feed, but much is left on the field for soil conditioning and erosion control. While stover would make an excellent cellulosic feedstock, these other uses — especially the conservation portion — have caused concern about how much can be safely removed for biofuel production. Studies at Penn State and elsewhere in the watershed have laid the groundwork for these necessary guidelines and would allow significant portions to be removed under most land and soil conditions.

Forest slash (the leaves and branches left behind from logging) is another feedstock with enormous regional potential and presents a more mixed picture. In some areas, such as the pines of the lower watershed, slash is simply burned and adds to greenhouse gases. In the more northerly hardwood areas, slash has erosion and soil conservation values similar to corn stover and also provides good wildlife habitat.

Complementary management practices such as cover crops, rotations and forest thinning may permit higher removal rates, but long-term sustainability of these practices must be assured. Consequently, states should consult with the U.S. Department of Agriculture to set standards for removal that are consistent with local conditions. However, guidelines are not enough. States should also provide incentives for farm and forest landowners to implement the recommended practices.

## 5 Provide incentives for creating and implementing forest management plans.

*The owner of any forest that provides biomass or fast-growing trees for biofuels feedstock should develop and implement a forest management plan. Special and unique forests with important conservation, historic and social value should be preserved from replacement with biofuel feedstocks, including fast-growing trees.*

**Background:** Forests — which currently cover 60 percent of the Bay watershed — are a potential source of biofuel feedstocks from slash, thinnings and timber. Forests also serve important ecological functions, such as filtering nutrients, reducing sediment runoff and providing wildlife habitat. Working forests with sustainable management plans are the best kind of forest for nutrient retention

because the trees are healthy and growing.

While proper thinning can enhance forest capabilities for timber, habitat and recreation, the potential increase in demand for timber and forest slash for biofuels may result in unsustainable harvests that could result in ecological harm. In order to allay these concerns, incentives should be in place to encourage implementation of forest management plans in forests used for feedstocks. There is a wide variety of available voluntary management plan opportunities for owners, from formal certification programs managed by forestry associations to state guidance and the web-based Forestry for the Bay program. Overall efforts should be made to preserve existing forests from clearing for biofuel crops.

One key incentive for implementing forest management plans is the ability of forest management practices to generate carbon credits that have market value. This subject is the focus of the Bay Bank initiative, spearheaded by the Pinchot Institute for Conservation.

## 6 Encourage the sustainable production of next-generation feedstocks on abandoned or underutilized land.

*States should encourage the establishment of sustainable, next-generation feedstocks on abandoned lands (such as previously mined or farmed areas) as well as on reclaimed mined areas and other underutilized or lower value lands.*

**Background:** Next-generation biofuels provide many opportunities to make use of abandoned or underutilized land that would otherwise be unproductive. This includes abandoned mine lands, reclaimed mine lands, abandoned farmland, dredge spoil sites and highly erodible lands.

Due to their extensive perennial root structure and ability to grow with limited fertilizer and other inputs, some biocrops can grow well where row crops or even grass pastures are difficult to produce or maintain. Cellulosic feedstock such as warm-season grasses or hybrid trees may be particularly suitable for these lands.

States could further this goal by including biofuel crops as an approved reclamation activity; the use of reclaimed mined land is already allowed under most mining regulatory programs. As lands are reclaimed, however, the programs should encourage the use of best management practices as part of their reclamation oversight. These activities could also be part of a larger effort within states to incorporate low-energy, sustainable development techniques in the mining and reclamation processes.

## 7 Ensure the nursery and seed industry has adequate supplies of seed and plant stocks.

*States should share information about the development of biofuels policy with the nursery and seed industry to ensure that there is an adequate supply of seed and plant stocks to address the anticipated growth of biofuel crops.*

**Background:** The nursery and seed industry is usually responsive to demand for species that need to be grown. However, the pace of development and the wide variety of potential new feedstocks could create unexpected demand and an underserved market. This is especially true of switchgrass and fast-growing trees like poplar and willow. States should work with nursery and seed associations to assure that the latest information from prospective investors is available.

## 8 Facilitate the production and purchase of biofuels through consumer incentives and infrastructure development.

*In order to create a viable biofuels industry, sufficient infrastructure must be in place to deliver feedstocks to refineries and biofuel products to blenders and on to the ultimate consumer. Additionally, states should assist in the development of consumer demand for next-generation biofuels by establishing purchase requirements and incentives that range from internal state policy to public tax incentives.*

**Background:** In order for a biofuel feedstock to have value, it must be able to be delivered to a refinery and ultimately to the consumer as a biofuel product. For cellulosic feedstocks, this will most likely require significant transportation over rural roads and rail lines. Unfortunately for our region, a lack of continued investment in these transportation systems has left them with a limited capacity to serve this emerging industry. Furthering the challenges, transportation of cellulosic feedstock is limited to roughly a radius of 50 miles due to the cost of diesel fuel. This requires consideration of locating a refinery in the center of a mostly rural or forested area uninterrupted by urban settings. Strategic planning and funding for this infrastructure is therefore needed to develop refining potential.

Likewise, in order to purchase biofuels, consumers must have both a reason to choose the biofuel and access to the biofuel itself. There are a number of ways that states

are helping to build demand for biofuels. Some require state agencies to purchase flexible fuel vehicles and make use of biofuels in those state vehicles. Others encourage the public to purchase flexible fuel vehicles through vouchers or tax incentives. There are also efforts to increase the presence of biofuels at service stations through blending pumps and corridor programs, as noted earlier.

Some states have also adopted goals for the biofuel content of gasoline and diesel. The simplest of these in Eastern states is to extend statewide the 10-percent ethanol content used in some urban areas to meet air quality goals. Pennsylvania has recently adopted a series of biofuel content goals based on in-state production levels over time.

State incentives should target cellulosic and other advanced biofuels to maximize environmental and social benefits. Legislation establishing state tax credits for installing E85 (an alternative fuel that contains 85% ethanol and 15% gasoline) or blending pumps together with grants to assist in funding pump conversions should be considered. Also, state legislation may be required to overcome exclusivity contracts with petroleum suppliers. Finally, Underwriters Laboratories, as the entity responsible for certifying all fuel pumps in the nation, should be encouraged to prioritize the certification of E85 and blending pumps to accelerate their availability in the market.

## 9 Utilize state economic development programs.

*States should make creative use of their economic development programs to support the development of feedstocks and refining facilities for next-generation biofuels.*

**Background:** Some states outside of the Bay region, have established economic development programs that encourage new business investments in next-generation biofuels, with specific provisions related to agriculture.

The integration of these initiatives with the new programs and funds available under the federal Farm Bill and Energy Acts is especially important. In particular, the coordinated development of feedstock and refining capacities can help overcome the “chicken or the egg” problem of a start-up industry, which requires both reliable source materials and available processing capability.

Although we recommend earlier that states work together on effective ways to use the Farm Bill and Energy Act programs, overall assistance to the biofuels industry

must reflect the full range of programs available in each state. Therefore, each state should develop a strategy for providing a mix of state programs and federal assistance to potential investors. It is especially important to modify these tools to address likely gaps in the life cycle of biofuels from feedstock to conversion to delivery.

## 10 Focus facility support on small, first-stage operations.

*States should give priority support to small, first-stage pilot plants for advanced biofuels.*

**Background:** Both public and private funds for next-generation biofuels tend to focus on research and full-scale operational biofuel facilities. This leaves the start-up stage for new biofuels technologies relatively uncovered. While universities are bench-testing these technologies, states should provide assistance for small start-up plants while urging the federal government to help close this funding gap.

Examples of new state or federal biofuel development tools include loans, loan guarantees and tax credits coupled with standards that establish requirements for biofuel use. States can also reach out to investors and the federal government to match them with universities that have developed promising new technologies. A range of such incentives may encourage investors to sponsor a public/private partnership that can help move biofuels technology from the lab to the market. This critical transition phase, often called “the Black Hole of Commercialization,” relies on small, first-stage plants that are firmly in need of funding.

# Appendix I

## Suggested State Legislative Actions

Appendix I provides suggestions for specific legislation to implement the state recommendations made in this report. Here, the actions are arrayed in five categories that each require a unique set of policy actions to facilitate the transition to next-generation biofuels.

### 1. Production Incentives

- Establish or increase existing production credits for cellulosic feedstocks so as to offer a larger incentive than grain-based feedstocks.
- Restrict existing production credits to small grain winter cover crops that are native to the Bay region.
- Set incremental state-wide biofuel production goal, either by aggregate mass/volume or percentage of fuel mixture.
- Pay producers a per acre fee (rental fee) to transition field production to cellulosic feedstocks.
- Establish a renewable or alternative biofuel energy grant program for conversion technology, facility construction, or retrofitting of farm equipment.
- Offer effective tax credits to feedstock producers, refiners, and other major stakeholders in the production supply chain.
- Remove any prohibitions on incentives, credits, or subsidies for production of cellulosic ethanol or biodiesel.

### 2. Infrastructure Incentives

- Establish cellulosic biofuels grant programs for installation of blender pumps at commercial and retail refueling stations — reimburse a certain percentage of installation costs (dispensing equipment, storage tanks, associated piping, etc.), or cost-share up to a certain percentage.
- Establish a competitive biofuels/alternative fuel funding program for municipalities for installation and infrastructure costs.
- Allow for an alternative fuel job creation tax credit or equivalent incentive that provides tax credits for businesses involved in the manufacture of components for Alternative Fuel Vehicles (AFVs), AFV conversions, or the production, storage, or dispensing of cellulosic ethanol as a vehicle fuel.

### 3. Tax Incentives

- Exempt alternative fuel from state sales tax; authorize municipalities to do the same. Consider limiting exemptions to higher biofuel blends (B20 or above, E85 or above).
- Exempt or reduce personal property taxes paid on AFVs or Flex Fuel Vehicles (FFV).
- Exempt or reduce vehicle excise tax paid on AFV/FFVs.
- Exempt or reduce vehicle registration fees by a certain percentage for all AFV/FFVs.

### 4. State Fleet Mandates

- Require a certain percentage of state vehicles, or require a certain percentage of fuel used by state vehicles, to use cellulosic ethanol or biodiesel, ensuring that the blend requirement is sufficient (E85, B20).
- Require all new state vehicles purchased be AFV/FFVs, or require state agencies to include a goal to purchase a significant number of AFV/FFVs in their vehicle procurement plans.
- Integrate into agency plans strategies on reducing petroleum consumption and emissions.
- Provide grant funding or cost-share opportunities to municipalities and school systems for purchasing new alternative fuel buses.

### 5. Natural Resource Protection

- Establish a regional protocol or interstate agreement that bans the introduction or use of invasive non-native species as feedstocks for advanced biofuels.
- Discourage or prohibit public funding or incentives for the establishment or use of invasive non-native species.
- Set regional research priorities to ensure improved varieties of feedstocks and natural resource benefits.
- Establish best management practices that lessen detrimental land-use changes and favor feedstocks that reduce nutrient and sediment runoff and fertilizer use.
- Appropriate adequate funds to establish or expand best management practice cost-share programs, conservation education, and technical assistance support.
- Establish residue management assistance programs to help farm and forestland owners and managers properly manage biofuel production.
- Develop or update removal standards for crop residue and forest slash that reflect soil types, climactic conditions, land configuration, and enhance local ecological function.

- Establish competitive incentives to ensure crop residue and forest slash removal standards are met.
- Require forestland owners to develop, possess, and implement a forest management plan for forests used as advanced biofuel feedstocks.
- Include biofuel crops as an approved reclamation activity on abandoned or underutilized land while encouraging use of best management practices as part of the reclamation process.

# Appendix II

## The 2008 Farm Bill

Federal programs benefiting biofuels production and the Chesapeake Bay:

### **Title XV — Trade and Tax Provisions**

#### **Tax Credit for Cellulosic Biofuels Production**

Establishes a new tax credit for domestic producers of cellulosic biofuels of up to \$1.01 per gallon for fuels produced from agricultural waste, wood chips, perennial energy crops and other non-food feedstocks. This tax credit is expected to be worth about \$400 million over 10 years.

### **Title IX — Energy**

#### **Biomass Crop Assistance Program (BCAP)**

Encourages production of next-generation biofuels by establishing project areas for biomass production and conversion. Pays producers up to 75 percent of costs for crops, plus annual payments to compensate for lost opportunity costs until crops are established and provides cost-share payments for collection, harvest, storage and transportation. All projects must follow conservation or forest stewardship plans. Preference is given for perennial crops and highly energy efficient annual crops, and to preserving natural resources. Uncapped funding, estimated at \$70 million.

#### **Rural Energy for America Program (REAP)**

Assists farmers and rural businesses with grants for the development of renewable energy technologies, such as biofuels, and to increase energy efficiency. Also, provides loan guarantees for up to \$25 million per project. Total funding is \$225 million.

#### **Bio-Refinery Assistance**

Assists in the development of new and emerging technologies for next-generation biofuels by providing demonstration-scale plants with grants up to 30 percent of costs and commercial-scale plants with up to \$250 million in loan guarantees. Total funding is \$320 million.

#### **Bioenergy Program for Next-Generation Biofuels**

Encourages production of next-generation biofuels by providing incentive payments to producers. Up to 5 percent of total payments can be paid to large facilities with a refining capacity of more than 150 million gallons per year. Funded at \$300 million.



**Rural Energy Self-Sufficiency Initiative**

Encourages rural communities to develop and implement energy self-sufficiency by authorizing grants to develop and install integrated renewable energy systems. Authorized at \$20 million.

**Repowering Assistance**

Increases the market for energy crops by providing grants to existing bio-refineries to produce energy from biomass for plant operations and to replace fossil fuel boilers with new systems that run on renewable biomass. Funded at \$35 million.

**Biobased Markets Program**

Expands the procurement requirements for federal agencies to purchase bio-based products and establishes a voluntary labeling program for producers of bio-based products. Funded at \$9 million.

**Biofuels Infrastructure Study**

Directs the U.S. Department of Agriculture, Department of Energy, and Environmental Protection Agency to jointly study the infrastructure requirements of biofuels production, transport, and distribution. The study will include market trends, availability of feedstocks, water requirements, alternative transportation options, impacts on safety of transportation systems and resource conservation.

**Biomass Research and Development**

Creates a joint program for the U.S. Departments of Agriculture and Energy to coordinate policies and procedures to promote biofuels and conduct research and development for the production of biofuels and biobased products. Funded at \$118 million.

**Forest Biomass for Energy**

Establishes a competitive research and development program to encourage use of forest biomass for energy. Project priorities include developing processes to use low-value forest biomass for energy production, integrating forest biomass into bio-refineries, new transportation fuels, and improving growth yield. Authorized at \$60 million.

**Renewable Fertilizer Study**

Directs the U.S. Department of Agriculture to study the production of nitrogen and phosphorus-based fertilizer from renewable resources in rural areas. The study will address processes, technologies, cost-competitiveness, and environmental impacts. Authorized at \$1 million.

**Biodiesel Fuel Education Program**

Provides grants to educate the public about the benefits of biodiesel fuel use. Funded at \$5 million.

**Title II — Conservation****Chesapeake Bay Watershed Program**

Addresses resource concerns related to the Bay including improving water quality and restoring, enhancing and preserving soil, air and related resources. Authorized to be funded at \$438 million.

**Environmental Quality Incentives Program**

Provides payments to producers to adopt and maintain agricultural conservation practices and now includes forestry practices such as forest management and fuels management. The program allows for innovative approaches that generate public benefits such as water and soil quality improvements, renewable energy production, and wildlife and open space protection. Authorized to be funded at \$7.325 billion.

**Conservation Stewardship Program**

Creates a nationwide stewardship system of incentives for adopting, improving and maintaining practices to achieve environmental benefits. Authorized to be funded at \$1.1 billion in additional funds.

**Wildlife Habitat Incentives Program**

Provides cost-share assistance to improve and protect wildlife habitat on agricultural, forest and tribal land. Authorized to be funded at \$445 million.

**Cooperative Conservation Partnership Initiative**

Sets aside 6 percent of all conservation program funds for carrying out cooperative projects. Allows states, local governments, conservation districts, producer groups and nongovernmental organizations to develop conservation initiatives that address common natural resource concerns.

**Farmland Protection Program**

Helps keep land in farming activities by providing funds to purchase development rights. The program has been streamlined to allow for greater flexibility at the local level. Authorized to be funded at \$743 million.

**Wetlands Reserve Program**

A revised procedure for valuing property and a streamlined review process will facilitate enrollment of wetlands acres. Authorized to be funded at \$1.3 billion.

# Appendix III

## The 2007 Energy Bill

Federal programs benefiting biofuels production and the Chesapeake Bay:

### **Title II — Energy Security through Increased Production of Biofuels**

#### **Renewable Fuel Standard (RFS)**

Increases the renewable fuel standard to 9 billion gallons in 2008, and expands it to 36 billion gallons by 2022. (See Sidebar, page 9).

#### **Study of Impact of RFS**

The National Academy of Sciences will study the impacts of the RFS on other competing feedstock related industries and consider policy options.

#### **Environmental and Resource Conservation Impacts**

Directs the U.S. Environmental Protection Agency to study the effects on of the RFS on air quality and other environmental concerns such as water quality, resource conservation issues and the growth and use of cultivated invasive or noxious plants.

#### **Production of Next-Generation Biofuel**

Supports next-generation biofuel production through a grant program that gives preference to proposals with the greatest reduction in lifecycle greenhouse gas emissions compared to the comparable motor vehicle fuel lifecycle emissions during calendar year 2005; proposals that do not achieve at least an 80 percent reduction in such lifecycle greenhouse gas emission will not be approved. Authorized at \$500 million.

#### **Renewable Fuel Infrastructure Grants**

Provides grants for infrastructure development for renewable fuel blends of 10 percent to 85 percent ethanol. Includes technical and marketing assistance and a pilot program to establish refueling infrastructure corridors. Authorized at \$1.4 billion.

#### **Biofuel Production Research and Development**

Provides grants to universities for research, development, demonstration and commercial application of biofuel production technologies in states with low rates of ethanol production, including low rates of production of cellulosic biomass ethanol. Authorized at \$75 million.

**Bio-Refinery Energy Efficiency**

Provides grants for research and development and commercial applications of cellulosic biofuel technologies and for the conversion of existing corn-based ethanol plants to produce cellulosic biofuels.

**University Based R&D Program**

Creates a competitive, geographically diverse grant program to support universities in the research and development of renewable energy technologies. No grant will exceed \$2 million. Authorized at \$25 million.

**Biofuels and Bio-Refinery Information Center**

Develops a biofuels information repository housing data related to all facets of renewable fuels.

**Prohibition on Franchise Agreement Restrictions Related to Renewable Fuel Infrastructure**

Prohibits franchise agreements from restricting the ability of stations to sell E85, B20 or renewable diesel, including installation of related infrastructure.

**Federal Fleet Refueling Centers**

Requires each federal agency to install at least one renewable fuel pump at each federal fleet fueling center by January 1, 2010. Uncapped authorization.

# Acknowledgements

## Researchers, Writers and Facilitators

The Chesapeake Cellulosic Biofuels Project was managed by the Chesapeake Bay Commission. The report and its companion recommendations were crafted with the expertise of Bill Matuszeski, Ernie Shea and the Chesapeake Bay Commission staff members. Lara Lutz shared her editing skill for the report's final production.

## The Coordinating Committee

Our special thanks go to the government liaisons who provided communication back to their agency leadership. The Committee, chaired by Ann Swanson, included Bill Brannon (W.Va.), Robins Buck (Va.), Patricia Buckley (Pa.), Corey Buffo (D.C.), Cathy Bunting-Howarth (Del.), Mark Dubin (CBPO), Peter Freehafer (N.Y.), Patrick McMillan (Md.), Russ Perkinson (Va.), and Chris Rice (Md.). Julie Winters served as our liaison to the EPA Chesapeake Bay Program Office.

## Cellulosic Biofuels Project Sponsors

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## WRITTEN COMMENTS

### **Expanding Rural Renewable Energy Opportunities- Inviting a Dialog with the Public on the New Authorities of the Food, Conservation and Energy Act of 2008**

**September 4, 2008**

The Chesapeake Bay Commission is a tri-state (Maryland, Pennsylvania and Virginia) legislative commission focused on implementing effective policy for the Chesapeake Bay. As agricultural and energy policies within the Farm Bill certainly play a significant role in the region's efforts to restore the Bay, the Commission regrets that we were unable to attend the USDA public meeting to present our comments on the new Energy Title programs in person.

In fact, on September 4, together with the Commonwealth of Pennsylvania the Commission co-hosted a Biofuels Summit in Harrisburg. Attached to these written comments please find a copy of our report that was released at the Summit, *Next Generation Biofuels: Taking the Policy Lead for the Nation*. The report contains 10 regional recommendations, together with 10 state recommendations for action to transition the Chesapeake Bay watershed as a leader in the production of next-generation biofuels.

Next-generation biofuels are of paramount importance for the region's energy security, farm sustainability and water quality protection. The Commission's report encourages the production of next-generation biofuels and stresses the importance of regional collaboration, multistate and federal partnerships, and promotes participation in many of the Farm Bill programs.

To ensure success, these new Farm Bill programs must include appropriate levels of technical assistance, education and outreach so that farmers know of the new programs and are able to implement them. This transition assistance is of particular importance with the Biomass Crop Assistance Program and the Forest Biomass for Energy program. Farmers must understand the shift to these new practices and technologies.

Colleges and universities within the watershed states are developing new and emerging technologies for next-generation biofuels. The Farm Bill Energy programs and grant and loan guarantees are exceedingly significant to enable the region to take the next step in constructing demonstration-scale plants and commercial-scale plants for next-generation biofuels production.

Thank you for your leadership and strong commitment to advancing renewable energy sources for the nation. Sustainable production of next-generation biofuels promises great opportunities for the Bay watershed, both economically and environmentally.

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August 28, 2008

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Rural Development, Business and Cooperative Programs  
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Washington, DC 20250-3201

Re: Rural Business-Cooperative Service Notice, Public Meeting on  
Implementation of Title IX, Energy Authorities of the Food, Conservation and  
Energy Act of 2008

Dear Assistant Robinson:

The USA Biomass Power Alliance ("USA Biomass") respectfully submits the following comments in advance of the September 4, 2008 informational meeting and pursuant to the request for written comments as set forth in the Federal Register.

By way of background, USA Biomass is the nation's leading voice for power generators utilizing biomass. Comprised of approximately 50 members in 20 states, our members provide almost 2,000 MW of renewable capacity to the nation's grid. At a time of increased awareness and importance of renewable energy, our members are the "workhorse" of the renewable power sector, providing reliable, base load power while also reducing greenhouse gas emissions and creating and sustaining rural economies from Maine to California. More information about our members and organization can be found at [www.usabiomass.org](http://www.usabiomass.org).

Obviously, we are directly and substantially impacted by any federal program relating to biomass. Our industry is fortunate that both Congress and the Administration have recognized the importance of biomass in the 2008 Farm Bill. Within the Energy Title, our members are affected, directly or indirectly, with almost every section including Sections 9003, 9004, 9005,



9007, 9009, and 9012. However, since other organizations are likely to highlight many of the important issues relating to those sections, we would like to tailor our comments specifically to 9011, the so-called Biomass Crop Assistance Program, or "BCAP."

The single largest cost factor facing our members is the collection and transportation of woody biomass, urban wood, and agricultural wastes from the "field" to the "plant." Almost every national study undertaken in recent years highlights the abundance of the biomass resource in this country. Moreover, removal and conversion of biomass to energy has many benefits, from forest fire abatement to greenhouse gas reductions. The challenge is the cost-effective collection and transportation of the fuel. For a variety of reasons, biomass feedstocks are often located at some distance from the power plant. As diesel prices continue to escalate, our members face dramatically rising fuel costs associated with transporting these renewable fuels. This situation, in turn, creates financial challenges in meeting power purchase agreement obligations and keeping our facilities economically viable.

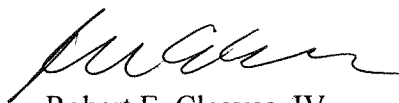
As we read Section 9011, specifically Section 9011(d), the Secretary must make payments for, inter alia, collection, harvest, storage, and transportation in amounts as set forth in (d)(2)(B). This newly created payment obligation is a critically important benefit to all USA Biomass members.

As part of the public informational meeting on September 4, we would like USDA to address the following questions regarding BCAP:

- When will USDA be implementing rules regarding Section 9011?
- Can our members seek payments now, in advance of the rulemaking? If so, what procedure shall we follow?
- What amount of funds will be available to implement the program?
- Is funding contingent upon a subsequent appropriation?

We appreciate your response to these questions, and look forward to our further participation in this important initiative for our industry.

Sincerely,



Robert E. Cleaves, IV  
President and CEO  
USA Biomass Power Alliance



September 19, 2008

Submitted via e-mail to: [robin.robinson@wdc.usda.gov](mailto:robin.robinson@wdc.usda.gov)

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
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1400 Independence Avenue, SW  
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Re: Comments on Section 9011, the Biomass Crop Assistance Program (BCAP)

Dear Under Secretary Dorr:

On behalf of the National Sorghum Producers (NSP), we appreciate the USDA's continued support of the domestic production and use of renewable fuels, and we believe that sorghum will continue to be on the forefront of new, advanced biofuels because of its diverse feedstock qualities that allow it to fit into starch, sugar and biomass renewable fuels production schemes. Thank you for holding a public meeting and seeking public input on how to implement Title IX of the Food, Conservation and Energy Act of 2008 (Farm Bill).

The National Sorghum Producers is a national commodity organization that represents sorghum farmers throughout the United States by promoting research, education on sorghum issues, and working on legislative issue like this. We have been actively involved in supporting research on sorghum for use as an advanced biofuel and for educating not only private industry, but the federal government on the benefits of sorghum within this industry and the diverse nature of this crop that can play a vital role in our nations move towards a more secure and independent source of fuel.

We encourage USDA to implement all of its Energy Title programs in a consistent and uniform manner with biofuels programs authorized in the Energy Independence and Security Act (EISA) of 2007 (P.L. 110-140). Consistent implementation will simplify procedures for use of USDA's and the Department of Energy's renewable fuels programs. We believe uniformity should be a top priority for implementation of the Energy Title.

In regards to Section 9011 (BCAP), the NSP strongly encourage the Department that all Title 1 crop residues, for example grain sorghum stover, be included in the program. We support the USDA working with bioenergy companies to bring cellulosic and other biomass conversion technologies to the market in a timely and efficient matter. Currently, many of our sorghum forages are eligible for LDP payments; however, the FSA has published, through its LP-2022



Notice a list of those sorghums that are ineligible for LDP payments. If Title 1 crop residues are in fact ineligible, then the Department needs to ensure that sorghums that are ineligible for LDP payments are eligible for program support under BCAP.

NSP believes that sorghum can be a significant and profitable cellulosic feedstock. For example, research recently released by Texas A&M shows that some forage sorghums can produce up to 60 tons (wet) per acre on one-third the water of other starched based forage crops. Several of our hay-type sorghums and forages are currently on the market and that exceed the tonnage estimates of many of the proposed perennial feedstocks. Cellulosic processing plants are very interested in high yielding, lower water using cellulosic feedstocks.

While BCAP encourages planting of perennials, establishing a perennial to produce the volume need in a timely manner for a cellulosic plant will be difficult. There are several hurdles that perennial crops must overcome in order to be a viable biomass feedstock. Some of the issues facing the perennial feedstocks are a lack of seed industry to supply seed stock for planting the required acres to meet our energy demands, lack of agronomic research to support planting, harvesting, and storage of the crops, and little research on plant diseases and insects that may impact yield potential. For this reason, we encourage USDA to provide equal focus on annual crops as an important component of the overall biomass feedstock needs for the country. In the sorghum belt, Abengoa is building a cellulosic plant in Kansas. We believe that annual crops can help provide immediate feedstock for that processing facility when it is needed. Contracting with farmers to produce a crop that they are familiar with the production, harvest, storage, and transport of makes good business sense for our members and, we would think, for the future of a cellulosic processing facility.

Although the law excludes land currently enrolled in CRP, we feel it is critical for the successful establishment of energy crops that this program supports the pro-active and sustainable conversion of CRP acres into eligible land under this program. Back in the mid 1980s, sorghum acres declined from 18 million acres to approximately 9 million by 1993. Most of this land was enrolled into the CRP program. NSP supports CRP and encourages producers to put fragile and very marginal lands into the program; however, we strongly believe that many of these CRP acres could be successfully brought back into production in support of our need for renewable feedstocks for cellulosic or other biomass conversion technologies. There are several benefits for using some of these CRP acres and these include: once CRP contracts have expired, these acres are no longer considered CRP acres and therefore they should be considered for BCAP; for producers who want to convert CRP land to this program for economic reasons, the benefits would be similar; for those acres coming out of CRP and that can't be re-enrolled because of oversubscription, this would provide an opportunity for producers to establish these acres for biomass feedstock production; and, any acres converted from CRP to BCAP would reduce the cost of CRP. Sorghum would play an important role in restoring these acres to productive agricultural lands for use in biomass feedstock production.



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Again, we thank you for this opportunity to submit comments in relationship to Section 9011 of the Farm Bill and look forward to our continued working relationship with your Department as we work to educate the industry about the benefits of sorghum as an advanced biofuel. Please feel free to contact me or the office if we can be of further assistance.

Sincerely,

A handwritten signature in black ink that reads "Toby Bostwick". The signature is written in a cursive style and is placed on a light-colored rectangular background.

Toby Bostwick  
Chair  
National Sorghum Producers

**9011**

1. Sustainability—provides income to producers to plant, wildlife conservation  
Harvest after nesting habits, Water quality.
2. No—promote high energy crops, sterile Miscanthus, ragweed, seed producing  
straws and other cellulosic sustainable plant waste.
3. Net energy produced, CO2 reduced
4. Provided a reviewed CPA audit
5. None

I appreciate the ability to comment. I would like to write supplementary comments in  
October.

Sincerely,

Steve Flick

Chairman of the Board

Show Me Energy Cooperative

P.O. Box 177

Centerview, MO 64019

Phone: 660-656-3780

Comments on Title IX, Section 9011  
Biomass Crop Assistance Program (BCAP)  
Western Organization of Resource Councils  
Randy Joseph, Chair  
220 South 27th Street, Suite B  
Billings, MT 59101  
406.252.9672

Dakota Resource Council  
P.O. Box 1095  
Dickinson, ND 58602  
701.483.2851

Northern Plains Resource Council  
220 South 27th Street, Suite A  
Billings, MT 59101  
406.248.1154

Thank you for the opportunity to offer ideas and suggestions at this early stage of the rulemaking process. The Western Organization of Resource Councils was instrumental in advocating for this section of the Farm Bill, and we offer specific guidance for ensuring that this important renewable energy program be designed to optimize the benefits to rural communities and economies, significantly advance sustainable renewable energy supplies while maximizing reductions in greenhouse gases, and provide the greatest possible net energy gains for renewable liquid fuels.

Our members are farmers who are very interested in providing sustainable biomass through the establishment of perennial crops. Second generation ethanol presents a rare opportunity to significantly increase the nation's energy security and independence, bring value to rural communities and agricultural producers, and reduce the carbon footprint of our transportation fuels, if done properly. As the Dept. of Agriculture begins to implement this legislation, here are some elements to incorporate into the process to ensure that the new BCAP program lives up to its potential.

#### Farmers as Owners and Regional Pre-Processing

One of the specific selection criteria that Congress incorporated into Section 9011 is the opportunity for producers and local investors to participate in the ownership of the biomass conversion facility. In order to advance the possibilities for local ownership, we urge the Secretary to develop rules which would allow for the development of biomass pre-processing centers where farmers can cooperatively pre-treat and convert biomass into appropriate feedstocks for larger biorefineries. This model of distributed processing would strengthen the position of farmers in the biorefining supply chain and would enhance the likelihood of benefits accruing to producers and rural communities as advanced biofuels become a reality. (Please refer to "Technical and Financial Feasibility Analysis of Distributed Bioprocessing Using Regional Biomass Pre-Processing Centers")

by Joseph E. Carolan, Satish V. Joshi, and Bruce E. Dale in Journal of Agricultural & Food Industrial Organization, Vol.. 5, Article 10, 2007)

#### Emphasize a Diversity of Biomass Feedstocks and Production Approaches

Because the production of liquid fuels from biomass is in its infancy, we strongly encourage the Department to develop rules that are broadly inclusive of a variety of feedstocks, and regions, as this new industry gets established.

#### Hardwire the BCAP Program to Foster Sustainability, Net Energy and Greenhouse Gas Reductions

Much of the impetus for second generation biofuels comes from the growing awareness and consensus that competition for land between food and fuels must not be a major factor in the marketplace, and that the relatively lower net gains in energy and in greenhouse gas reductions implicit in corn based ethanol as currently produced must be displaced by more efficient and climate friendly approaches to renewable liquid fuels. In the few months which have elapsed between passage of the 2008 Farm Bill and the beginning of rulemaking, market forces and public reaction to energy and food prices have combined to underscore the importance of these considerations in selecting biomass crops for assistance.

The long term viability of second generation biofuels hinges on its credibility as a truly low carbon fuel.

#### Emphasize Low Input Feedstocks

A key to minimizing the lifecycle greenhouse gas emissions from perennial biomass feedstocks will be to focus on those that require low inputs. Research by University of Minnesota Regents Professor G. David Tilman has found that Low Input High Diversity (LIHD) plots were, on average, 238% more productive than monocultures, including switchgrass. These LIHD plots also removed highly significant amounts of carbon dioxide from the atmosphere and sequestered the carbon in the soil. Biofuels produced from LIHD biomass have a double advantage with respect to greenhouse gases, because producing them sequesters carbon in soil and using them offsets greenhouse gas emissions from fossil fuels. Utilization of native prairie plants has the additional advantage of demonstrating over decades sustainable annual hay yields without irrigation, fertilization, herbicides or re-planting.



State of Wisconsin  
Jim Doyle, Governor

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**Department of Agriculture, Trade and Consumer Protection**  
Rod Nilsestuen, Secretary

September 15, 2008

Thomas C. Dorr  
Under Secretary for Rural Development  
U.S. Department of Agriculture  
Attention: Robin J. Robinson  
Room 4231  
1400 Independence Avenue, SW  
Washington D.C.

Dear Under Secretary Dorr:

Thank you for the opportunity to provide written comments and input into USDA's rulemaking process for the programs authorized under Title IX (Energy Title) in the Food, Conservation, and Energy Act of 2008 (Farm Bill).

I applaud your leadership in this area of USDA in promoting rural economic development and energy independence through existing programs and ask for continued support of the tremendous opportunities to expand these efforts with the programs and funding in the new Farm Bill provisions. It is critical that your agency be diligent in making sure that the path to energy independence foremost benefits rural communities and its residents, agriculture cooperatives and small businesses and entrepreneurs working in rural areas.

Foremost among sections of the energy title provisions that can serve as a catalyst for new jobs and businesses among agriculture, forestry and related sectors is the Biomass Crop Assistance Program (BCAP) found in Section 9011. The U.S. Congress clearly recognizes that our "working lands" of agriculture and forestry can be the source of a critical portion of biomass for energy, fuels and products of the future. The challenge is to build onto the existing infrastructure to create the necessary biomass growing, harvesting, aggregation, collection, short-term storage and just in time deliver of to end users.

Below are some responses to the questions circulated by USDA relative to Section 9011 Biomass Crop Assistance Program and Section 9003 Biorefinery Assistance Program

**Section 9011- Biomass Crop Assistance Program**

- 1. The conservation and environmental impacts of a proposal are among the mandated selection criteria. Be that as it may, what conservation and environmental protection measures should be required for crop production and harvesting on BCAP acreage?*

Response: Call for sustainable agriculture and forestry management using the current best management practices.

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*Agriculture generates \$51.5 billion for Wisconsin*



Implement an incentive schedule. Example: Assuming rental and crop establishment payments are provided for each acre/hectare enrolled. At, and after, time of harvest, continue making rental payments on that portion of the enrolled land that is not harvested for sale to a bioenergy customer and remains standing on the land as habitat and/or erosion control. This approach will provide the producer a set of metrics that they can use in determining their own stewardship practices. Perhaps the rules should consider an escalating payment schedule that rewards harvesting less and keeping more, up to, say, 20% of enrolled land. Allow the landowner to decide what section of the land to not harvest. Again, that land that is most difficult to harvest will likely be set-aside and, in practice, such areas are often most valuable for erosion control and habitat. Also, recognize the fundamental agronomic differences between perennials and annuals. Perennial crop production will necessitate that a residual remains above the ground and the roots in the soil. This condition is necessary for future year production, and guarantees soil protection from both water and wind erosion.

Require existing conservation program requirements for annual/bi-annual crops (crop residual remaining on ground, conservation tillage, etc.)

2. *Should BCAP allow only native plantings on eligible acreage?*

Response: No

3. *For the purposes of ranking and selection proposed BCAP Projects, what criteria should the Secretary consider in addition to the eight (listed below) mandated by the Food, Conservation and Energy Act of 2008?*

- a. *The volume of the eligible crops proposed to be produced in the proposed BCAP project and the probability that such crops will be used for BCAP purposes.*
- b. *The volume of renewable biomass projected to be available from sources other than the eligible crops grown on contract acres.*
- c. *The anticipated economic impact in the proposed BCAP project area.*
- d. *The opportunity for producers and local investors to participate in the ownership of the biomass conversion facility in the proposed BCAP project area.*
- e. *The participation rate by beginning or socially disadvantaged farmers or ranchers.*
- f. *The impact on soil, water, and related resources.*
- g. *The variety in biomass production approaches within a project area, including agronomic conditions, harvest and postharvest practices; and monoculture and polyculture crop mixes.*
- h. *The range of eligible crops among project areas.*

Response: Additional criteria/guidelines:

- i. Demonstration and sharing of off-take contracts
- j. Tract record, competence and performance guarantees of technology vendors, EPC and construction firm of biomass conversion facility(s)
- k. Allow biomass production incentives and subsidies to also be provided to producers who lease land for production not only for the land owner/producer.

*4. What evidence should the Secretary use to determine that biomass conversion facilities not yet operational at proposal submission have sufficient equity available?*

Response: Independent evaluation of financial feasibility by established firm, preferably by a bonding, debt or other credit analysis firm

*5. What level of reduction in annual payments to BCAP producers should be required when biomass is delivered to an energy facility, and/or when a Collection, Harvest, Storage and Transportation Payment*

Response: Incorporate evaluation of off-take contracts into criteria. Strongly advocate limiting, or even elimination, of direct payments to producer for biomass shipped to market (e.g. the proposed matching payments of \$1 for every \$1 per ton paid by the bioenergy conversion customer). Instead, consider the following:

1. Land rental payments (e.g. CRP style) for crop establishment period
2. Cost sharing or full cost recovery for establishment of crops, including post establishment management practices prior to time of first harvest.
3. Continue rental payments, and post establishment payments on that portion of enrolled land NOT harvested, but retained for erosion control and/or habitat (See comment to Q1, Section 9011).
4. Allow market forces to determine price/ton. Markets will reward those producers who manage for Btu content. Require off-take contract with biomass conversion facility to incorporate pricing system that indexes competing fossil fuel prices (e.g. natural gas or coal)
5. Give higher weight (scoring scale) to those projects in which the off-take contracts are fully transparent in the incorporation of all related and qualified for renewable energy credits, carbon offsets, energy investment tax credits, etc. In other words, reward those projects where the biomass conversion company shares the environmental incentives with the biomass producers.

### **Section 9003 – Biorefinery Assistance**

1. The terms “biorefinery” and “advanced biofuel” have broad definitions. Should the definitions be narrowed for the purposes of Section 9003?

Response: No, broader is better. Make certain that all types of biomass conversion facilities are included in the definition, including the most basic forms (**pelletizing, chipping, drying, etc.**) of facilities. Recognize that having an existing facility be economically viable (“going concern”), with experience in markets, supply and operations, will provide a population of firms that will be in a position to adopt emerging technologies that benefit their own situation and competitive opportunity. Not all bio-refineries will be converted pulp-paper operations, grain ethanol, bio-diesel or cellulosic liquid-fuel facilities. Many bio-refineries may be most profitable by operating as pre-processing or pre-treatment facilities, which extract various components from the raw feedstock and then transport

page four, USDA Letter

those materials for additional refining/conversion at a larger scale operation. This sort of industry model may evolve primarily as a reflection of the high cost of transportation (incentive not to move water, incentive to densify Btus, etc.).

2. Do you have comments on how the following should be defined? “Biorefinery”, “Advanced Biofuel” “viable commercial scale operation”, “technical and economic potential for commercial application”, “Co-product”, “byproduct”, “established market”, “potential market”, “local ownership”, “area” (in terms of the location of like facilities), “demonstration project”, or “viable commercial scale operation”.

Response: Add: “demonstrated history of modular expansion of technology” to list. Define this as technical proof that the conversion technology has been successfully tested and implemented beyond “bench-top” or “pilot-scale” experiments AND that the technology vender has a tract record of not just developing a static size of capacity but also has a history of successfully, expanding the operational capacity of the conversion facility (modular expansion).

3. What information will benefit lenders in terms of financial and activity performance reporting?

Response:

- 1) Gross profit margin(GPM)/unit output(UO), both with and without direct labor costs
- 2) Operating profit margin(OPM)/UO, both with and without direct labor costs
- 3) Total project capital employed/UO
- 4) Construction capita employed/UO
- 5) Off-take and supply pricing assumptions. Distribution and supply chain descriptions.

4. Should eligibility for this program be open to entities with broad international ownership?

Response: Preference should go to domestic ownership business and exceptions should only be if project is done with majority direct business partners located in the U.S. and/or states applying for funds.

5. Should the guarantee be available only to regulated lenders or open to non-regulated lenders?

Response: Absolutely, Yes.

6. Other than the technical and economic elements, what should be included in a well documented feasibility study and who would you consider a qualified preparer? Who should review the feasibility studies, and what should be the expectation for turn-around time?

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Response: (Items to be included in feasibility study)

- 1) Supply system assumptions
- 2) Existing markets and pricing history for biomass, if any
- 3) Pricing models and model contracts, both for off-take and supply
- 4) Inclusion of renewable energy incentives and carbon offsets in supply contracts
- 5) Qualifications of Engineering, Procurement and Construction Management firm (EPC)
- 6) Identification of off-take markets/customers
- 7) Energy and Mass Balance process flow designs/flow charts
- 8) Risk management plans and policies (facility, technology, off-take and supply), including performance guarantees from technology vendors and/or EPC

Response: (Review & Turn-around time) Regionally based technical advisory committee, with significant participation by commercial lenders active in this industry. 30 day turn-around.

7. What level of qualifications should those preparing Technical Reports or Environmental Reports be required to have? Should associated costs be considered pre-loan eligible costs? Should specific statutory scoring criteria carry more weight than others? In addition to the scoring criteria, should the Agency consider other evaluation criteria?

Response: (Qualifications for preparing Tech & Env. Reports) Professional Engineering firm with acceptable statement of qualifications and/or tract record in evaluating similar (biomass or energy) projects

(Pre-loan cost treatment as eligible costs) Yes

(Statutory criteria carry more weight) Yes

8. What is the best way for an applicant to identify its ability to address the purposes of the program in terms of anticipated impact on resource conservation, public health, and the environment, and the potential for rural development? How should actual impact be measured and reported?

Response: (Demonstration of anticipated impacts and monitoring) Utilize a Citizen's Advisory Group in review process. Also, require substantial documentation of project's expected market share of regionally produced raw material resources. Encourage joint development agreements between project developer and affected local governments, regarding monitoring, impacts, conflict resolution and mitigation.

9. What consideration should be given to projects using low-value feedstocks that will adversely impact other local or non-local industries using like feedstock?

Response: Market forces may determine.

10. Do you have opinions, concerns or suggestions regarding loan terms and conditions such as equity requirements, guarantee fees, percentages of guarantee, or timing of the issuance of the Loan Note Guarantee?

Response:

Demonstration project – 25% equity, 75% debt, 75-90% guarantee

Initial commercial scale project – 30-35% equity, 70-65% debt, 75-90% guarantee

Full-scale commercial project – 40% equity, 60% debt, 75-90% guarantee

I would be very interested in discussing any of these suggestions in greater detail.

Sincerely,

Gary Radloff

Director of Policy and Communications

Wisconsin Department of Agriculture, Trade and Consumer Protection



**NATIONAL WILDLIFE FEDERATION®**

1400 16th St. NW, # 501

Washington, DC 20036

(202) 797-6800

*NWF's mission is to inspire Americans to protect wildlife for our children's future*

September 19, 2008

Robin Robinson  
Office of the Administrator  
USDA Rural Development, Business and Cooperative Programs  
Room 5803, South Agriculture Building, Stop 3201  
1400 Independence Ave., SW  
Washington, DC 20250-3201

Dear Ms. Robinson,

Thank you for the opportunity to provide these comments on behalf of the National Wildlife Federation (NWF), in response to the "Notice of a Public Meeting on Implementation of Title IX, Energy Authorities of the Food, Conservation and Energy Act of 2008" (73 Fed. Reg. 50302). Addressing global warming is the top priority of the National Wildlife Federation. Therefore, we have a strong interest in promoting next generation bio-energy that is sustainable and results in greatly lowered greenhouse gas emissions. We currently serve on the Council for Sustainable Biofuels Production, which is seeking to develop a certification scheme for sustainable bioenergy production. We are also interested in promoting on-farm opportunities for energy savings and carbon sequestration. While these comments will focus on the Biomass Crop Assistance Program, we look forward to working with the Department throughout the rulemaking process and implementation of all Title IX programs.

NWF has examined the issues surrounding next generation biofuels/bioenergy in some depth, especially as they relate to wildlife and sustainability. We worked for nearly two years with industry, academics, nonprofits, and legislators to develop and advocate a framework for a landowner assistance program for bioenergy in the Farm Bill that met the needs of next generation energy companies, farmers, and foresters, as well as wildlife and the environment. Although the Biomass Crop Assistance Program (BCAP) was not all we had hoped for, we believe that it will go far in enabling USDA to begin assisting landowners in growing the feedstocks needed to fuel next generation bioenergy facilities.

Since the final program did not include funding for interested landowners to develop and organize producers into projects for participation in the BCAP, we hope that USDA will utilize all resources at its disposal, including Cooperative Extension, Rural Development, Forest Service, Farm Service Agency and Natural Resources Conservation Service Staff to help foster the development of these projects. We hope that the Farm Service Agency will also take

advantage of the expertise of all of these agencies, along with the U.S. Fish and Wildlife Service, Department of Energy, and the Environmental Protection Agency in designing and implementing Title IX programs. Our comments on USDA's implementation of BCAP are included below.

**Sustainability:**

It is critically important to the long-term viability of the biomass energy/fuel industry that their practices be sustainable. This fact was recognized by Congress and the legislative language of Section 9011 includes "the impact on soil, water, and related resources" among the selection criteria for participation in the program. The Manager's summary further explains that they "intend that the use of 'soil, water and related resources' under this section includes wildlife-related concerns. (page 233)" Further, the minimum terms of contracts under the BCAP program include "the implementation of (as determined by the Secretary) – (I) a conservation plan; or (II) a forest stewardship plan or equivalent plan," and the Manager's summary further stresses that "contracts include resource conservation requirements (page 233)." In order to meet the requirements of the new Renewable Fuels Standard in the Energy Independence and Security Act of 2007, cellulosic biofuels will need to achieve a 60 percent full life cycle reduction in greenhouse gas emissions over conventional fuels and meet certain land use requirements. Together, these requirements will have implications for what lands, feedstocks, inputs, and management practices are used in producing bioenergy feedstocks.

**Land Eligibility:** Setting standards for what lands are eligible for enrollment in the BCAP program will be especially important to meeting both "soil, water and related resources concerns" and life cycle greenhouse gas emissions reduction targets. Lands that were native sod as of enactment of the statute are appropriately made ineligible for inclusion in the program (they would also be ineligible under the RFS). Yet due to the potential for displacement of food crops to newly broken areas as a result of BCAP enrollment, we encourage USDA to consider priority enrollment of lands that are the most marginal for food crop production and those that have been abandoned for such purposes.

While the managers make clear that they "intend that nonindustrial private forestland be included as 'eligible land' in a BCAP area," they also "encourage the Secretary to consider the most suitable use of the land and encourage the maintenance of native forests and late successional forest stands and discourage the conversion of native forests to non-forest use. (managers summary, page 233). We encourage USDA to take the manager's direction on this issue in order to protect soil, water, wildlife and biodiversity, as well as minimizing greenhouse gas emissions brought about by land use changes. Specifically, NWF suggests that USDA take into account the following sustainability considerations in selecting and developing contracts for BCAP projects on forested lands:

- Projects that rely upon the conversion and clear-cutting of mature standing forests and forested wetlands for dedicated biomass crops should be ineligible for any support under the BCAP program. Under limited circumstances, especially where non-native species are a problem, conversions may be a necessary silvicultural tool to bring a forest into a more natural condition.

- The ability of forests to provide biomass is highly dependent on forest type and the intensity of removals. Particular attention must be paid to soil disturbance, nutrient cycling, and provision of deadwood for wildlife habitat. Public harvesting standards (e.g. such as the state of MN) or third-party certification systems (e.g. FSC) can ensure a proper balance between forest ecology and biomass removal.
- Many forest-derived biomass feed stocks such as wood chips, wood pellets, and roundwood can be used in efficient thermal combustion systems to generate heat and power. Combined cycle (CHP) systems are most desirable at scales which do not create undue pressure on the forest resource or negative carbon balances from the processing and transportation of biomass fuels.
- Where possible, commercial and institutional biomass energy facilities should move towards securing “dedicated” biomass supplies (a closed loop system) to ensure accountability in procurement, forest sustainability, and net carbon benefits. In the absence of a dedicated supply, clear fuel procurement guidelines should be developed which emphasize harvesting supervision from a registered forester and the role of forest management plans in determining safe removal levels. (The reliance on wood and wood waste from land clearing, for example, is not “renewable.”)
- Woody biomass energy plantations should be developed only on sites and soils that support such a use. Priority landscapes that are suitable for such plantations are previously degraded agricultural lands and which utilize native species. Particular attention should be paid to the scale and layout of the plantation in terms of landscape biodiversity and environmental impacts. Guidance on these issues can be found in NWF’s 2006 report *The Possibility of Plantations (attached)*.

**Feedstock eligibility:** While we believe that USDA should allow all native perennial species that do not have the potential to become invasive or noxious to be eligible for assistance under the BCAP, we believe that those projects that propose to utilize mixtures of natives be given a higher priority for enrollment and higher levels of cost share and annual payments. Research published in the world’s leading scientific journals has shown that highly-diverse mixtures of native perennial plants receiving little or no fertilizer and pesticide outperform monocultures<sup>1,2</sup>. Favorable treatment of mixtures is further justified by the low level of research on implementation and development that has gone into utilization of these crops to date (compared to that dedicated to monoculture feedstocks such as switchgrass), despite their potential to sustainably produce renewable biofuels that maximize net energy gain and greenhouse gas reductions, while also providing improved water quality, wildlife habitat and restoration of soil fertility.

Annually harvested high-diversity mixtures of native prairie plants have an advantage in that they maintain themselves without inputs. Published studies show that annual nitrogen fertilization rates of 45 to 90 lbs/acre are needed to get high monoculture switchgrass biomass yields<sup>3</sup> Look on the web for Woodson County, Kansas, the self-proclaimed Prairie Hay Capital of the World. Agricultural records show that its native prairie has had sustainable hay yields for more than 70 years without any irrigation, fertilization, herbicides or re-planting. Low input,



high diversity plantings require no nitrogen inputs because legumes provide all the nitrogen needed. Nitrogen fertilizer is both economically and energetically expensive. Large amounts of greenhouse gases are released when it is made, and a potent greenhouse gas (nitrous oxide) is emitted when it is applied to a field. Moreover, nitrogen fertilizers can lead to pollution of groundwaters, rivers and the ocean.

Another benefit of low-input high-diversity mixtures of native prairie plant species is that they grow well on infertile soil. This would allow us to keep more of our fertile lands in corn, soybeans and other food crops. It would also mean that there would be less conversion of native ecosystems around the world to cropland to grow the grains that we no longer exported. This would be a significant greenhouse gas benefit because land clearing, such as of Brazilian rainforests, releases immense amounts of carbon dioxide into the atmosphere.

While the BCAP program does allow for enrollment of annuals, the manager's summary makes clear that such annuals should be limited to those that "show exceptional promise for producing highly energy-efficient bioenergy or biofuels that preserve natural resources..." (p. 233). It would be rare to find an annual feedstock that could show such promise as an energy feedstock that the energy involved in replanting and maintaining such a crop would be sufficiently offset as to show a 60 percent (or even 40 percent) reduction in life cycle greenhouse gas emissions. When impacts to natural resources, such as runoff of pesticides, herbicides, and fertilizers, are considered, such feedstocks are not likely to measure up. Native perennials will, in nearly all instances, prove superior in terms of energy efficiency and sustainability.

NWF believes that the BCAP program is best focused on providing support for the development of native perennial and native perennial mixed feedstocks that are appropriate to the proposed site. Natives are better adapted to the local landscape and their potential to become invasive or noxious is much better understood. Several non native species proposed for use as biomass feedstocks in the U.S. have shown a high propensity to become invasive, including giant reed, jatropha and miscanthus, among others.<sup>4</sup> Even sterile genotypes often spread very successfully as weeds, giant reed serving as an extreme example. Planting of inappropriate species for the site, should also be prohibited – such as the planting of tree species in areas of native grassland. Such afforestation is damaging to grassland-adapted wildlife.

*Management and Harvesting:* A management plan or Forest Stewardship Plan are required for BCAP contract acreage. USDA should involve the Natural Resources Conservation Service, U.S. Forest Service, U.S. Fish and Wildlife Service, and state fish and game agencies in the development of these plans. The plans should address protection of soil, water, wildlife and carbon resources, including: minimizing the amount of mechanical operations performed on the crop, maintaining nutrient and organic matter levels of the soil, controlling erosion, limiting inputs and maintaining wildlife populations and diversity.

Harvest timing will be critical for those feedstocks that have the potential to attract nesting birds. No harvesting should be allowed during the primary nesting season. Unharvested (but managed as needed) buffers should be required to protect all wetlands, streams and other surface waters. Unharvested refuges should be required, on a rotating basis across the enrolled land that provide

sufficient cover for over-wintering wildlife and sufficient nesting structure for birds the following Spring.

### **Selection Criteria**

The BCAP program will serve the best role in advancing the future of bioenergy in this country if it is used to assist landowners in piloting a variety of types and scales of bioenergy projects, and not simply to reward those projects that would have happened without BCAP support. It is far too early in the development of the biomass energy industry to pick winners – in terms of scales, feedstocks or conversion technologies. NWF therefore encourages USDA to develop a scoring system to rate projects according to their innovation, as well as their potential to produce the most energy efficient, greenhouse gas reducing and sustainable energy projects. The scoring system should be flexible enough to ensure that a wide variety of scales and the widest possible geographic distribution of projects are included. Priority should be given to feedstocks that are being grown for the first time in an area, as these producers will be taking on the most risk.

### **Payments:**

***Establishment Payments:*** The statute allows for reimbursement of up to 75% of establishment costs of eligible crops. NWF encourages USDA to reward innovation and sustainability by paying a higher establishment cost to those attempting those crops that others have not yet attempted and those that show the most promise of being sustainable. It serves much less of the public good, for example, to assist in the re-planting costs of a loblolly pine plantation, where the landowner has ample experience in establishing such a crop than assisting with the establishment of a mixed plant system with native forbs and grasses.

***Annual Payments:*** The most productive purpose of annual payments is to make it economically possible for a landowner to take on the risk of growing a new crop and to weather the time lag before the new crop is capable of being sold for energy. This does not mean that payments should reach such a level as to encourage farmers to switch their productive commodity croplands to biomass crops. Besides being extremely expensive, this would not be desirable, as taking productive lands out of food and feed production would only shift that production to virgin lands elsewhere, defeating the greenhouse gas reduction purpose of producing bioenergy. Payments should be based on an easily understood system, such as the “rental rates” used for the CRP program. NWF does not believe that limited BCAP funding should be used to support annual crops, but if they are to be enrolled, annual payments should be used only as “risk management,” to cover crop losses due to unforeseen circumstances.

***Reduction in Payments:*** NWF encourages USDA to use payment reductions sparingly in order to ensure predictability in income for those willing to participate at the cutting edge of producing biomass feedstocks. Since contracts only last for five years, payment reductions should only be considered in exceptional circumstances. While payment reductions are certainly appropriate where crops have become economically fully viable, they could become a serious problem for those who, although able to sell their feedstocks, are not yet receiving sufficient payments to cover their costs. Sale of seed off of enrolled lands should not be penalized, however use for haying or grazing, since not the intended purpose of the program. If reductions are excessive and feedstock prices low, there is little incentive for participants to bother harvesting and selling their crops. The process for determining whether a reduction should be applied and the level of

those reductions need to be clearly set so that producers can make educated decisions about whether to participate in the program.

**Collection, Harvest, Storage and Transportation:**

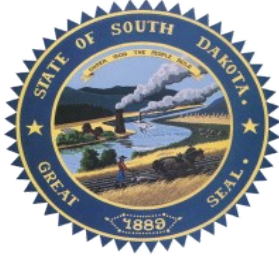
NWF encourages USDA to allocate no more than 15% of BCAP funds to collection, harvest, storage and transportation costs. The funding should be used to help landowners pilot new techniques and practices, not simply to subsidize these activities for a small proportion of landowners. Funding should be awarded with an eye to developing or improving techniques that will make biomass energy more efficient and sustainable. Participants in this portion of the BCAP should also be required to meet sustainability standards, including an NRCS-approved conservation plan for soil, water, air and wildlife, or a Forest Stewardship plan to ensure harvest levels and practices are sustainable and protect soil, water, air and wildlife.

Again, we thank you for the opportunity to provide USDA with our thoughts on implementation of the Biomass Crop Assistance Program. We look forward to working with you throughout the rulemaking process to ensure BCAP assistance is best targeted to assist landowners in growing biomass that will fuel our next generation of bioenergy in ways that significantly reduce our greenhouse gas emissions and protect our natural resources for future generations.

Sincerely,

Julie M. Sibbing  
Director, Climate, Agriculture and Wildlife

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South Dakota Department of Agriculture  
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September 19, 2008

The Honorable Ed Schafer  
Secretary  
U.S. Department of Agriculture  
1400 Independence Avenue, SW  
Washington, D.C. 20250

Dear Secretary Schafer:

I am writing to provide the following comments regarding the new energy title, Title IX, of the 2008 Farm Bill. The provisions in Title IX are a boon to South Dakota agriculture, as these newly enacted statutes provide great resources for rural and agricultural communities by expanding existing development of renewable and alternative sources of energy.

In South Dakota, renewable energy development has been a success; since 2002, South Dakota's ethanol production has increased from 165 million gallons per year to over 990 gallons per year today. South Dakota is currently home to 15 commercial ethanol plants, and we are also proud to have more farmer-owned plants than any other state. The growth of South Dakota's ethanol industry has helped to stimulate economic development in our rural communities with new, high quality jobs, leading to increased household incomes, and a revival of main street rural America.

Looking forward, South Dakota agriculture will continue to play a role in renewable energy development, using existing and new renewable feedstuffs for energy production. Against this background, the support and availability of resources that title IX of the 2008 farm bill provides for next generation biofuels is very encouraging. As USDA drafts rules and regulations to implement the energy title provisions, it is imperative that all sources of domestic energy and renewable feedstuffs are considered for research and development potential and investment opportunities.

Title IX's renewable energy programs include payments for biomass harvesting, collection, storage, and transportation in Section 9011. Section 9011 indicates that biomass producers are eligible to receive payments under the Biomass Crop Assistance Program for 2 years. As USDA drafts rules governing how these payments will be

issued, I would urge USDA to ensure that biomass producers are given the option to choose two sequential years in which to enroll in the program. And, in the event a producer chooses to enroll in the program during the final year of the 2008 Farm Bill, I would urge USDA to clarify that a producer's contract for the Section 9011 payments would remain in effect beyond the 2008 Farm Bill, in order for the producer to receive payment for the second year of biomass production under this program.

Moreover, I do not advocate a payment system under Section 9011 wherein payments in year 2 are based on incremental biomass production; rather, I would urge USDA to issue payments for the base biomass production in both years of the 2 year payment program. An incremental payment system could send distorted signals to biomass producers, encouraging producers to alter existing stewardship practices in order to yield greater acres of biomass in year 2; or, to strip all eligible biomass acres in year 2, ignoring any potential dire environmental consequences. Payments based on actual quantities of biomass produced still encourages farmers to dedicate biomass as a renewable energy input, and lessens the unintended consequences associated with an incremental payment system.

Title IX's renewable energy programs also include payments for eligible biofuels production under Section 9005. In order to receive payments for the production of biofuels, the eligible biofuels producer is required to enter into a contract with USDA. On behalf of our state's biofuels producers, I would strongly urge USDA to implement a contract term that provides payments to eligible biofuels producers for the same length of time as the life of the loan that an eligible biofuels producer obtained to finance the capital investment necessary to produce the advanced biofuel. This type of contract term will provide needed stability to biofuel producers' financial management, encouraging participation in this new program.

In addition, as USDA drafts rules regarding the new financial assistance programs in Title IX, I urge USDA to streamline the application processes for the new loans, grants, and loan guarantee programs.

Thank you for your consideration of written comments on Title IX. Please feel free to contact me at any time. I look forward to working with you, as USDA implements the energy title of the farm bill.

Regards,

A handwritten signature in blue ink that reads "Bill Even". The signature is written in a cursive, flowing style.

Bill Even  
Secretary  
South Dakota Department of Agriculture



## Sustainable Northwest

September 18, 2008

USDA Rural Business and Cooperative Programs  
Room 5803 South Agriculture Building  
STOP 3201  
1400 Independence Avenue, SW  
Washington, DC 20250-3201

To Whom It May Concern:

We are pleased to submit this letter in support of Section 9013 of the Food, Conservation, and Energy Act of 2008. We feel that, if implemented correctly, the Community Wood Energy Program (CWEP) will both empower rural communities and reinvigorate local economies. This letter offers several suggestions to help ensure the program's potential can become a reality.

We are members of the Rural Voices for Conservation Coalition (RVCC), a collection of western local, regional, and national organizations that have joined together to promote balanced conservation-based approaches to the ecological and economic problems facing the West. Utilization of forest biomass from ecologically-based restoration activities presents a tremendous opportunity for rural communities to restore landscapes, generate local energy, and stimulate economic development.

For more information, please refer to our Woody Biomass Issue Paper (<http://www.sustainablenorthwest.org/quick-links/resources/rvcc-issue-papers/Issue%20Paper%20-%20biomass08.pdf>).

We strongly believe that community wood energy projects could provide multiple benefits to rural communities across the West, including:

- Increased energy independence and efficiency at the grassroots level (schools, community facilities, local governmental buildings, etc.)
- Dramatic fuel cost savings to generate thermal energy in rural communities that have been impacted by the rising costs of heating oil, propane, and natural gas
- New economic development and employment opportunities in fuel harvest and transport, densified fuel manufacturing, facility design, construction, operation and maintenance
- Improved forest health and ecosystem functionality through the removal of hazardous fuels
- A net decrease of carbon emissions by switching from fossil fuels to renewable carbon-neutral fuels

USDA Rural Business and Cooperative Programs and cooperating agencies must do two things in order for the CWEP to have the widest reaching impact in rural communities:

1. Ensure program flexibility in providing financial assistance to communities at various stages of renewable energy development, such as:
  - a. Outreach to local residents,
  - b. Securing technical assistance to conduct feasibility analyses,
  - c. Facility design, and
  - d. Project capitalization.
  
2. Investments should be focused in a “cluster” approach to increase the opportunities for near-term results. Certain regions of the country have taken significant steps forward in developing successful approaches to community wood energy. In particular, communities in New England, the upper Midwest, the greater Northwest, and the Southwest are ripe for community wood energy development.

The initial investment in this program will be most effective if it is targeted to the regions of the country that are pioneering community wood to energy. A targeted investment strategy to these regions would provide a greater return on investment than a national funding strategy. A targeted approach would create synergies and accelerate broad implementation across each region, more effectively building a regional energy economy. These “clusters” could then provide effective models to facilitate knowledge transfer to other regions of the country.

We applaud Congress for the inclusion of the Community Wood Energy Program in the Food, Conservation, and Energy Act of 2008. With thoughtful implementation, this program will have a profound positive impact on the economies of rural communities as community energy projects function as a means of wealth capture, address national climatic concerns in regards to energy generation, and provide a mechanism to utilize by-products from forest restoration activities.

Sincerely:

Chad Davis  
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