

Alternative Energy: Opportunities for Florida Agriculture

Florida Farm Bureau Energy Taskforce Report
to FFBF Board of Directors
December 4, 2007



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by:

THE FLORIDA FARM BUREAU ENERGY TASK FORCE

Kevin Morgan—Chairman
Lee Ann Fisch
Frankie Hall
Dana Brooks
Andrew Walmsley
Adam Basford
Rod Hemphill
Ed Albanesi

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INTRODUCTION

Energy prices are at historic highs and show no signs of falling in the foreseeable future. President Bush and others from every conceivable political position have decried the United States' "addiction to foreign oil." Environmental concerns are preventing the exploration and utilization of domestic oil supplies.

The dependence on foreign oil and the lack of domestic oil supplies has made finding viable alternatives an important national security issue. Over the past few years, a great deal of attention has been focused on finding the solution to the United States' increasing energy dependence. From wind to nuclear, from ethanol to hydrogen, technological advances have made energy independence a realistic goal.

Agriculture is in a unique position to play an important role in producing enough energy to greatly decrease the dependence on foreign oil. Corn ethanol and biodiesel production have already been huge successes in the mid-west, producing an economically feasible, renewable fuel source that can be produced on the farm. But can the successes of corn ethanol and biodiesel be translated to other crops and other regions of the country? Can Florida's farmers and ranchers take advantage of this new industry and find additional profit streams by producing alternative energy?

These are some of the questions that were considered by the Florida Farm Bureau Energy Task Force in the formulation of this report. The goal of this report is to explore the potential for alternative energy production, examine the legislative and policy climate surrounding alternative energy, explain what efforts Florida Farm Bureau has undertaken to understand and support alternative energy production and to establish some recommendations for Florida Farm Bureau's future involvement in support of this industry.

In compiling this report, the Task Force made several assumptions regarding alternative energy. The first assumption is that crude oil prices will continue to escalate because of increasing world demand and limited domestic oil production areas. This will only

increase the viability of alternative energy sources. However, it will take time, ingenuity and a commitment to renewable energy production to significantly reduce our dependence on fossil fuels. At least for the near future, it is assumed that the United States will continue to be dependent on foreign fossil fuels.

The second assumption is that the research and development necessary should be supported by new state and national initiatives. Opportunities for grants and other funding for the research and development of alternative energy are currently being made available through public and private sources. It is imperative that this financial commitment to research and development continue in order to create energy independence. Financial backing is not the only support needed. Legislative efforts and public policy initiatives are necessary to promote the development of a strong American alternative energy industry.

The third assumption is that there are real opportunities for farmers to take advantage of technological advances and developing markets for energy from renewable resources. Agricultural energy production has the potential to have two distinct economic benefits for farmers. First, new crops or waste from currently produced crops can generate additional streams of income by being sold into the energy market. Secondly, alternative energy production has the potential to help stabilize energy prices in the long term, helping to address input costs for farmers.

FLORIDA FARM BUREAU ENERGY TASK FORCE

The Florida Farm Bureau Energy Task Force was created in February of 2006 by President Carl B. Loop Jr. The Task Force was originally called the “Biofuels Task Force” but soon changed its name to “Energy Task Force” because it better described its purpose and mission. The original news release outlined the primary mission of the task force.

“Loop has appointed a staff task force that will work in concert with the Florida Department of Agriculture and Consumer Services, University of Florida/IFAS and other agencies and groups to investigate the potential for using non-food based biomass to produce fuels for transportation, generating electricity and other energy needs. Biomass sources can include agricultural waste, trees, forest residues, perennial grasses and other crops.”

In October of 2006 newly elected Florida Farm Bureau President John Hoblick charged the Task Force with continuing its mission and building relationships with agencies while gaining expertise on agricultural energy related issues and policy. Mr. Hoblick asked that this report be prepared for the December, 2007 meeting of the Florida Farm Bureau Board of Directors.

Task Force Purpose and Objectives

Florida Farm Bureau’s initiative is an effort to focus on renewable energy and its potential to offer economic benefits to Florida’s farmers. Florida Farm Bureau’s mission is to increase the net income of our members and to improve their communities. It is the purpose of the Energy Task Force to find ways that alternative energy production can maintain and increase farm profitability as well as offering a very real opportunity for economic development in the State of Florida and its rural communities.

The Florida Farm Bureau Energy Task Force has three distinct objectives. First, the Task Force should explore ways to facilitate educational opportunities for our members and the

general public while providing outreach and support for renewable energy initiatives. The Task Force should also encourage collaboration with universities, government and other non-government organizations. Finally, the Task Force should continue to foster Florida Farm Bureau's role in the development of public policy to help promote the advancement of an alternative energy industry.

Florida Farm Bureau Energy Task Force Members and Responsibilities

Kevin Morgan, Chairman—*Director of Ag. Policy*

Responsible for coordination of all of Florida Farm Bureau's efforts dealing with energy.

Lee Ann Fisch—*Assistant Director of State Legislative Affairs*

Responsible for coordination of Florida Farm Bureau's state legislative efforts in Tallahassee.

Frankie Hall—*Associate Director of Ag. Policy*

Responsible for exploring opportunities for alternative energy production using animal waste.

Dana Brooks—*Coordinator of National Affairs*

Responsible for coordinating Florida Farm Bureau's national legislative efforts.

Andrew Walmsley—*Environmental Services Coordinator*

Responsible for exploring carbon mitigation opportunities for agriculture.

Adam Basford—*Assistant Director of Ag. Policy*

Responsible for coordinating with IFAS regarding existing and needed research.

Rod Hemphill—*Director of Public Relations*

Responsible for industry outreach.

Ed Albanesi—*Editor of FloridAgriculture*

Responsible for coordinating Florida Farm Bureau's member outreach program.

LEGISLATIVE AND POLICY CLIMATE

Governmental action plays an inevitable and important role in an issue as important and wide reaching as alternative energy. Florida Farm Bureau staff has closely monitored the enormous amount of regulatory and legislative action surrounding alternative energy. New ideas and proposals are continually being developed at the federal, state and even local levels. Below is an overview of some of the current governmental actions being taken at the state and federal levels.

State Governmental Action

Currently there are three state governmental groups working on alternative energy issues: the Florida Energy Commission, the Governor's Action Team on Energy and Climate Change, and the Public Service Commission. In addition to these groups, Florida Commissioner of Agriculture, Charles Bronson has taken a leading role in supporting agricultural production of alternative energy through his Farm to Fuel initiative.

Florida Energy Commission

In 2006, Florida Senate and House leaders created the Florida Energy Commission (FEC): a nine member panel charged with recommending to the Florida Legislature the best ways to secure Florida's energy future. At the Legislature's request, the FEC's immediate focus will be on renewable energy sources, conservation and climate change. But a long-term goal is to take a look at all aspects of the many energy options available to Floridians. The FEC's recommendations are due at the first of the year.

While some bills relating to energy have already been filed for the 2008 session, it is doubtful that any significant legislative action will begin before the FEC recommendations are made. Currently Sens. Lee Constantine, R-Altamonte Springs, and Mike Bennett, R-Bradenton, are independently considered to be the frontrunners to lead the Senate on energy issues. Energy Committee Chair Rep. Paige Kreegel, R-Punta Gorda, can be expected to provide leadership on the House side.

In its meetings, the FEC has struggled to achieve consensus on many aspects of this multi-faceted issue. Its October meeting showcased several contentious issues including net metering, greenhouse gas reductions, and auto pollution standards. Ultimately, even with its deadline for submittal quickly approaching, votes were delayed until the next month's meeting. Considering such rampant disagreement on a wide range of issues, it would be reckless to predict the final outcome.

Governor's Action Team

The Governor's Action Team on Energy and Climate Change was created by Gov. Charlie Crist as part of his climate change summit in July 2007. The Action Team released its Phase 1 Report in early November. Phase I recommendations of particular interest to Farm Bureau include:

- Pursuit of a market based "cap and trade" policy;
- Funding to accelerate research, development, and expansion of renewable resources for the production of electricity;
- Pilot projects on carbon capture, storage, and sequestration; and
- Funding for research, development, and technology demonstration for renewable transportation fuels.

One finding in specific denotes recognition of the role that agriculture could play and of the benefit it could reap: "The Action Team finds that a self-sustaining renewable fuels industry using feedstocks derived from Florida biomass can improve energy diversity and security, increase farm income, and create new jobs in Florida."

Recommendations by the FEC or the Action Team will require legislative approval in order to be enacted. (Technically speaking, the governor could issue executive orders to implement the recommendations, but they would only be effective during his term(s) in office.)

It will be interesting to see how the recommendations by the legislative group and those of the gubernatorial group play out in the session. While one would hope they would work together, the nature of politics – and the prevalent rumor that House Speaker Marco Rubio is planning to run against Gov. Crist in 2010 – makes it entirely possible, if not probable, that the legislature will show preference to the ideas set forth by the group they created.

Public Service Commission

The Public Service Commission (PSC) was directed by Executive Order to address the issue of net metering and interconnectivity. The Governor's Executive Order asks for "a uniform, statewide method to enable residential and commercial customers who generate electricity from on-site renewable technologies of up to 1 megawatt to offset their consumption over a billing period by allowing their electric meters to turn backwards when they generate electricity (net metering)." As with most things, however, the devil is in the details: the question is not so much whether there will be net metering, but how it will be configured.

The agriculture community has met strong resistance from electrical cooperatives in promoting the process of net metering. As part of the deep-pocketed and influential power industry, they will be a formidable opponent on a lobbying battlefield. To be successful, Farm Bureau will have to activate every resource of its extensive grassroots network.

Farm Bureau testified before the PSC at a workshop on net metering this summer, as did the Department of Agriculture and Consumer Services (DACCS). Staff recommendations are due to the Commission by December 6, 2007; the Commission hearing will be held December 18, 2007.

Farm to Fuel

Any report on state governmental action on energy issues would be remiss if it did not include the work of Agriculture Commissioner Charlie Bronson and his team at the Florida Department of Agriculture and Consumer Services (FDACS).

Commissioner Bronson was originally involved in the 25X25 Initiative. This initiative's vision for America's farms, forests, and ranches to provide 25 percent of the total energy consumed in the United States by the year 2025, while continuing to produce safe, abundant, and affordable food, feed, and fiber.

Bronson brought this vision to Florida with the creation of the Farm to Fuel Initiative. In 2006, this initiative was statutorily created under FDACS to enhance the market for and promote the production and distribution of renewable energy from Florida-grown crops, agricultural wastes and residues, and other biomass and to enhance the value of agriculture products or expand agribusiness in the State.

FDACS has been very active in promoting agricultural energy production both legislatively and publicly. In addition to obtaining legislative enactment of the initiative as well as funding for grants for renewable fuels research and development, Commissioner Bronson has also hosted two Farm to Fuel conferences to provide education on renewable fuels and networking opportunities. A third conference is being planned for 2008.

Florida Farm Bureau continues to work with FDACS and support the Farm to Fuel Initiative. Farm Bureau financially supported and attended both of the Commissioner's Farm to Fuel Summits where he brought together government leaders; representatives of the agriculture industry; producers, marketers and retailers in the petroleum industry; financial interests and academia to strategize about how to best move forward on research, production, marketing and distribution of renewable fuels.

Federal Government Action

There have been more than 280 energy efficiency and renewable energy bills introduced during the 110th Congress. These bills cover a wide range of policy and issue areas that include appropriations, authorizations, budget, research and development (R&D), grants, loans, financing, regulation (including a renewable fuel standard), tax incentives, goals, plans, impacts, and the environment/climate change.

Most of these bills have focused on grants and tax incentives. The bills also cover a range of sectors and topics that include buildings, defense, education, federal lands and energy management, farms, American Indians, and international activities.

The bills can also be categorized by type of renewable resource, type of energy efficiency measure, and technology. They cover a broad range of energy efficiency measures and technologies, including distributed generation, net metering, equipment and appliance standards, fuel economy standards, and transportation efficiency. Most of these bills address transportation and fuel economy. These bills also cover a broad range of renewable energy resources and technologies, including alcohol fuels, biofuels, biodiesel, biopower, biomass, geothermal, hydrogen, hydropower, solar, and wind. So far, fuels area has generated the greatest number of bills.

In the first session of the 110th Congress, the House and the Senate passed two markedly different versions of omnibus energy efficiency and renewable energy legislation. Because the House and Senate have passed different measures, further action will be required in at least one chamber before a conference committee could be arranged. Concerns about certain oil and natural gas provisions, and the lack of measures to support increased oil and gas production, have led the Administration to threaten to veto each bill.

Highlights of major provisions include:

- Renewable Fuels Standard (RFS). The Senate bill would set a modified standard that starts at 8.5 billion gallons in 2008 and rises to 36 billion gallons by 2022. The House bill has no RFS provisions.
- Corporate Average Fuel Economy (CAFE). The Senate bill would set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020. The House bill has no CAFE provision.
- Renewable Energy Portfolio Standard (RPS). The House bill would set a minimum standard that would start at 2.75% in 2010 and rise steadily to a peak of 15% in 2020. The Senate bill has no RPS provision.

- Offshore Oil and Gas Royalties. The House bill would establish royalties, or alternative payments, for certain federal leases established in 1998 and 1999. The Senate bill has no provision.
- Repeal of Oil and Gas Tax Incentives. The House bill would obtain tax revenue offsets by reducing subsidies for oil and natural gas production. The Senate bill has no provision.
- Renewable Energy Electricity Production Tax Credit (PTC). The House bill would extend the PTC for 4 years, and expand it to include some additional resources. The Senate bill has no provision.
- Other Tax Incentives. The House bill would extend several investment tax credits covering solar energy and energy efficiency in residential and commercial sectors. The Senate bill has no provisions.
- Energy Efficiency Equipment Standards. Key differences involve standards for residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.
- Loan Guarantees. The House bill would give new loan authority to a wider variety of projects. The Senate bill would prevent appropriations acts from limiting the use of non-appropriated funds.

The 2002 farm bill, the Farm Security and Rural Investment Act of 2002, was the first farm bill to explicitly include an energy title. The energy title in the 2002 farm bill was concentrated on grants, loan, and loan guarantees to foster research on agriculture-based renewable energy, to share development risk, and to promote the adoption of renewable energy systems. In addition, USDA's Bioenergy Program provided direct incentives to expand actual production of bioenergy.

Since enactment of the 2002 farm bill, interest in renewable energy has grown rapidly due, in large part, to a strong rise in domestic and international fuel prices and a dramatic acceleration in domestic biofuel production (mostly ethanol). Many policymakers view agriculture-based biofuels as both a catalyst for rural economic development and a response to growing energy import dependence. Ethanol and

biodiesel, the most widely used biofuels, receive significant federal support in the form of tax incentives, loan and grant programs, and regulatory programs. However, emerging concerns related to corn-based ethanol production are generating greater policy interest in the potential for cellulosic ethanol production which appears to offer many environmental benefits over corn-based ethanol.

Renewable energy policy initiatives have been included in almost every 2007 farm bill proposal in both the House and the Senate. Strong congressional interest in maintaining and expanding agriculture's role in renewable energy production was evident in the farm bill debate. There has been significant support from Congress for U.S. agricultural, forestry, and working lands should provide from renewable resources 25% of the total U.S. energy consumption by 2025. (25X25 Campaign)

On July 27, the House approved a new farm bill which includes a new energy title. The bill expands and extends several provisions from the energy title of the 2002 farm bill with substantial increases in funding and a heightened focus on developing cellulosic ethanol production. The House passed farm bill proposes a total of \$3.2 billion in new funding for energy provisions over five years including \$1.4 billion in production incentive payments on new biofuels production; \$800 million in new funding to underwrite up to \$2 billion in loan guarantees for the development of new biorefineries; \$420 million in new funding for research on biomass production, harvest, transportation, and storage; and new mandatory funding for biomass serve for cellulosic feedstock.

***The Senate farm bill is being debated on the floor at this time.

It is important to note that the farm bill is not the area of jurisdiction for most of the renewable energy production in general. For example, the current Renewable Fuels Standard mandating the inclusion of an increasing volume of biofuels in the national fuel supply originated in the Energy Policy Act of 2005. This included the 7.5 billion gallons of biofuel used by 2012.

Florida Farm Bureau will continue to monitor the progression of the farm bill energy title, the larger energy bill and other renewable fuels legislative opportunities.

FLORIDA FARM BUREAU'S EFFORTS

Since the creation of the Energy Task Force, Florida Farm Bureau has been active in the realm of alternative energy production. To this point, Florida Farm Bureau's efforts have centered on outreach through Farm Bureau publications, providing educational opportunities through facilitating meetings and trips and through support of research and development efforts.

Member Outreach through FloridAgriculture

One of Florida Farm Bureau's primary functions has been to promote alternative energy from agriculture and to educate Farm Bureau members about it through FloridAgriculture Magazine. Florida Farm Bureau's other publications (Web Site, Fast Facts, Priority Issues, Ag Policy Bulletins, etc.) also include pertinent information dealing with alternative energy.

Since the Energy Task Force was established in October, 2006, the following articles have appeared on the pages of FloridAgriculture:

- October 2006 – Two-page centerspread article on Commissioner Bronson's inaugural Farm to Fuel Conference.
- October 2006 – One-page article on the Alternative Energy Panel sponsored by Sen. Mel Martinez and Rep. Adam Putnam at UF.
- January 2007 – Viewpoint column by Sen. Bill Nelson promoting biofuels as part of our nation's goal of energy independence.
- March 2007 – Legislative preview on Page 3 highlighted by Commissioner Bronson's and DEP Sec. Mike Sole's support of alternative energy grants and initiatives.
- April 2007 – Viewpoint column by Andrew Walmsley that included mention of biofuels 25x25 initiative.
- May 2007 – Viewpoint column by Phil Leary that tied biofuels production to the related issue of carbon credits.
- September 2007 – Page 3 article summarizing the proceedings of Commissioner Bronson's second annual Farm to Fuel conference.

- December 2007 – Major article highlighting the trip to Iowa to learn about that state’s alternative fuel initiatives.
- December 2007 – Brief article summarizing the Jackson County wood pellet operation that Board members has the opportunity to tour in late summer.

Florida Farm Bureau will continue to use its publications to promote the subject of alternative energy and provide members with any information that might be useful to them. As new opportunities and technologies emerge, Florida Farm Bureau members will be supplied with the information necessary to take advantage of them. Florida Farm Bureau’s publications will also provide information about how members can support the legislation and funding mechanisms that will promote an industry with the potential to provide farmers with additional streams of income while promoting energy independence.

Highlighted Meetings

Florida Farm Bureau staff has been involved in many meetings exploring opportunities for farmers dealing with alternative energy. The following are merely examples of some of the meetings Florida Farm Bureau has organized and/or attended since the establishment of the Energy Task Force.

Suwannee Farms Methane Digester Grant Support

Suwannee Farms, a 5,000 acre row crop farm and cattle feeding operation has recently submitted a grant proposal to USDA for the construction of an on-farm methane digester. This digester would capture and utilize the waste from their cattle feeding operation to produce biogas and refined nutrients.

Florida Farm Bureau has sent a letter in support of this grant proposal. FFBF staff has also provided support by leading several tours to their facility along with testifying at the Public Service Commission in regard to the issue of net metering and interconnectivity.

Carbon Mitigation Opportunities Meeting with AgraGate

AgraGate Climate Credits Corporation was created to expand the Iowa Farm Bureau Federation Carbon Credit Aggregation Program, which began in 2003. AgraGate is focused on helping farmers, ranchers and landowners tap into a new revenue stream- the sale of carbon credits.

Carbon credits, also called offsets, are being traded on the Chicago Climate Exchange (CCX). The exchange launched trading in December 2003 in a pilot program that allows companies to purchase carbon credits to offset greenhouse gas emissions.

This market is creating a new revenue opportunity for producers with continuously no-tilled/strip-tilled fields and newly established grasslands; rangeland that's been committed to an improvement program; managed reforestation or new plantings on afforested land and on-farm anaerobic digesters.

AgraGate met with the Florida Farm Bureau Executive Board during its November meeting. They gave an overview of their nationwide efforts and discussed involvement of other state Farm Bureaus.

Carbon Sequestration Potentials for Florida Agriculture

Farm Bureau staff participated in a forum sponsored by Environmental Defense to release preliminary information from a research project they are supporting to find the carbon sequestration capabilities of Florida's soils, agricultural crops, renewable fuels and anaerobic digestion technologies. Through the work of these researchers, we can better quantify the amount of carbon storage potential for Florida's farmers and ranchers to be compensated through some sort of carbon market whether it is a mandated cap and trade program or the Chicago Climate Exchange.

Bison Renewable Energy

In August, FFBF staff invited Bison Renewable Energy, LLC to North Florida to investigate the possibility of Biogas Regional Anaerobic Digester (BRAD). The tour allowed Bison representatives to gain perspective on the Suwannee Valley Region of Florida and its potential for energy production. The tour concluded with a presentation to Farm Bureau members in Mayo.

As a follow up, the Iowa Renewable Energy Trip made a stop to the Cornerstone BRAD in Hull, Iowa where Bison will be collecting animal waste and other agricultural waste and turning it into biogas.

Meeting with Environmental Defense on the Development of Carbon Markets

Farm Bureau staff met with Zach Willey of Environmental Defense along with Phil Leary to discuss many of the initiatives being put forth by Environmental Defense. It allowed for a discussion on the need for the development of carbon markets, the potential benefits to Florida agriculture, legislative initiatives that need to be put in place and the formulation of a carbon credit aggregation network.

Educational Outreach with Advisory Committees

The 2007 Winter Advisory Committee Conference brought in “25x’25” Initiative staff to promote the program with conference attendees. Individual advisory committees have also had some significant discussion on alternative energy options. Both the Dairy and Sugar Committees submitted policy resolutions dealing with alternative energy that were adopted by the FFBF voting delegates at the annual meeting. (See Policy Development section for the policies.)

Putnam/Martinez Energy Summit

Senator Mel Martinez and Congressman Adam Putnam hosted an Energy Summit at the University of Florida in Gainesville. Florida Farm Bureau staff was on hand to participate in the activities. Kevin Morgan was part of a panel discussing

agriculture's potential in producing biofuels. Morgan reported that agriculture could meet the challenge of producing renewable fuels as long as there was profit potential for Florida's farmers.

Public Service Commission Testimony

Florida Farm Bureau provided testimony to the Public Service Commission on the issue of net metering and interconnectivity. Florida Farm Bureau was joined by the Florida Department of Agriculture and Consumer Services along with testimony from Suwannee Farms on the importance of allowing for net metering and interconnectivity above avoided cost. This has become a contentious issue between agriculture and many of the utilities. The issue has also been a concern for Farm Bureau members as policy was adopted at this year's convention.

Through this testimony more meetings have been spawned to try to find consensus on a solution for on-farm energy production.

Commissioner Bronson Meeting

Commissioner of Agriculture Charles Bronson invited President Hoblick and key staff to a meeting to discuss future efforts to promote energy from agriculture.

Commissioner Bronson encouraged a unified approach and reminded the group that we have a responsibility to support legislation that helps farmers in the area of renewable energy. Processing facilities, tax incentives and a national fuels standard for mixed fuel were discussed as priorities. The group also discussed the need to establish a Farm to Fuel Advisory Committee.

Farm to Fuel Summits

In August of 2006 and 2007 Florida Farm Bureau staff participated in the Farm to Fuel Summit hosted by Commissioner Bronson. The 2007 event attracted over 400 participants who focused on issues ranging from marketing ethanol to Floridians to finding financing for biorefineries.

Fact Finding Trips/Tours

Jackson County Green Circle Board Trip

In September, the Florida Farm Bureau Board of Directors traveled to Jackson County to examine agriculture in the county. There, the board toured Green Circle

Energy where forestry waste will be turned into wood pellets to be used as green energy in coal fire production facilities overseas.

Iowa Renewable Energy Trip

On October 21-24, President Hoblick and 13 others traveled to Iowa to explore the renewable energy industry. The trip included tours of a biodiesel facility, a regional methane digester project, an ethanol plant visit, wind farm tour, and the BECON facility tour. Discussion topics include grants, business structures, cooperatives, carbon credits and the future of the renewable energy industry. This trip allowed members to truly get a grip around the possibilities of an energy independent America.

Brazil Tour

In January 2008, Florida Farm Bureau will be leading a trip to Brazil to investigate their highly competitive agricultural economy. Members on the trip will be provided with a broad view at the structure of Brazil's agriculture industry. A significant portion of the trip will be focused on examining Brazil's successful ethanol industry. Tour stops include sugar production along with a sugar based ethanol plant.

UF/IFAS and Other Research Support

Florida Farm Bureau supports the University of Florida as Florida's technology center for the development, demonstration, and commercialization of renewable fuels from agricultural crops, woody materials, and organic residues. The Florida agriculture industry is interested in the commercial development of bioenergy such as fuel ethanol in Florida. Florida Farm Bureau is supporting the testing, validation, development and implementation of new technologies with Florida feedstocks. For cellulosic ethanol, Florida has the potential to grow and manufacture over 30% of its transportation fuel from biomass.

Biofuels Pilot Plant

A newly funded Biofuels Pilot Plant will test multiple feedstocks, facilitate process improvements and provide side streams for development of co-products in the production of cellulosic ethanol. The Center of Excellence Biofuels Pilot Plant will

be located in Gainesville and will continue the cellulosic ethanol research of Dr. Lonnie Ingram. Ingram's team of scientist has over 20 patents for the cellulosic ethanol process.

The new Biofuels Pilot Plant at UF will bring together scientists for research at all stages of production. A diversity of Florida's feedstocks including grasses, agricultural wastes, and trees will be tested. Chemical and biological engineers will work with microbiologists to perfect and allow scale-up of ethanol production.

Research and Demonstration Cellulosic Ethanol Plant

Florida Farm Bureau has also supported the development of a research and demonstration cellulosic ethanol plant. The new Research and Demonstration Cellulosic Ethanol plant is located near Belle Glade. The goal of the new Belle Glade plant is to accelerate commercial development of cellulosic ethanol processes and to provide alternative income sources for Florida agriculture and forestry.

UF/IFAS Bioenergy Research and Extension Initiatives

Florida Farm Bureau supports and continually works with UF/IFAS on the research and extension programs that are focused on these forms of alternative renewable energy:

- Cellulosic ethanol from grasses, trees, and agricultural wastes
- Biodiesel from oil crops
- Biogas/Biomethane from organic wastes, energy crops, aquatic and marine biomass
- Biobutanol from energy crops
- Bioelectricity/heat/fuel by thermal conversion of biomass
- Biomethanol from biomethane and syngas
- Synergies, for example bioethanol, biodiesel, and biomethane

Florida Farm Bureau also supports UF/IFAS bioenergy and extension that is centered in three critical areas:

- Developing energy crops (tailoring to the end products; maximizing biomass per acre, minimizing inputs and environmental impacts, and maximizing fuel per unit biomass)
- Industrial research and development (microorganisms to convert biomass to energy, scaling up the process, co-products; opportunities for small-scale production)
- Environmental assessment (water quality; energy balance)
- Economics and policy (integrated systems approach; economic and societal impacts)
- Resource efficiency and energy conservation

With the University of Florida's expertise in bioenergy, continued partnership with government and other industry groups and Florida's capacity to grow biomass, Florida can help advance the science of bioenergy, accelerate the commercialization of renewable biofuels and chemicals, and contribute substantially to global sustainable energy supply.

Florida Agreen Circle Methane Digester Project

Out of the many meetings previously held in respect to methane digesters, the idea was born between Farm Bureau staff and the University of Florida Animal Sciences Chair that an on farm digester feasibility study needed to be completed for Florida dairies. This project has the goal of bringing a full circle of participants to the table to figure out the feasibility of methane digestion for Florida's dairy producers. It will look at everything from the cost of construction and production to marketing of the green energy, carbon credits and by-products. It brings buyers, regulators, farmers, farm associations, lenders, grant writers, research and developers, government and private industry together to hopefully provide a holistic green energy package.

FFBF POLICY DEVELOPMENT

Florida Farm Bureau members at the county and state levels have shown great interest in renewable energy. Several Advisory Committees and County Farm Bureaus have discussed energy issues and developed and adopted Farm Bureau Policy addressing specific energy related issues. This has resulted in a new “Energy Section” in our 2008 FFBF Policy book. These policies will provide guidance to the organization and are listed below.

78. Agricultural Based Energy Production

We support legislation, including tax incentives, to encourage agricultural based energy production.

Agricultural producers should be able to sell renewable sources of energy back to the grid through net metering. These producers should receive a fair price for the energy they produce whether it be through the production of an energy crop, the utilization of waste materials or other means.

Because the utilization of waste materials for energy production provides additional benefits to society, certain incentives (e.g. full retail price or higher) should be provided to the producers of such energy.

79. Bio-energy Support

To the extent that waste material or underutilized land can be used to produce energy, we support research and cost assistance to producers by the appropriate local, state and federal agencies to foster bio-energy production or conservation.

80. Carbon Sequestration

We believe that emission offsets that sequester carbon through soil, forestry and other agricultural offsets are just as effective in reducing atmospheric carbon as are emission reductions and should be fully recognized in any cap and trade system.

We also encourage Florida Farm Bureau Federation to become a leader in investigating opportunities surrounding climate mitigation strategies for Florida agriculture.

81. Offshore Oil Exploration

We support offshore exploration and drilling for oil and natural gas in the Outer Continental Shelf not in conflict with the Military Mission Line in the Gulf of Mexico and the Atlantic Ocean.

CONCLUSION

Alternative energy production will continue to increase in importance in the United States. Energy prices are at unprecedented highs and dependence on foreign oil is seen as a legitimate threat to national security. The production of alternative energy sources provides the United States with an environmentally friendly way to produce cost effective energy that helps reduce the United States' dependence on foreign oil.

The Florida Farm Bureau Energy Task Force believes that there is great potential for Florida agriculture in the production of alternative energy. As farmers learn how to take advantage of this potential market, there are several things that we believe must happen to successfully produce energy in Florida. Through education, collaboration and facilitation, Florida Farm Bureau should play a part in all of these areas.

Vision for the Future

Florida farmers must be willing to move forward in new business models (ie new generation cooperative/LLC) that will provide viable alternative / green energy to the American public and decrease our dependence on foreign sources of energy. Alternative energy production is still a fairly new concept for agriculture in Florida, and a successful industry will require a new way of thinking. In order to promote this vision for the future Florida Farm Bureau can be a source of information for members who want to learn more about being involved in energy production.

Research and Development

The research and development arms of Florida's major universities are incredibly important to the establishment of demonstration sites and in helping producers implement new technologies. With such a new industry research and development are vital. Florida Farm Bureau can support the future of agricultural energy production by being involved in encouraging research and development of technology that has the potential to move agricultural alternative energy production forward.

Legislation and Public Policy

By supporting and implementing legislation and public policy that promotes the advancement and profitability of agricultural energy production, Florida Farm Bureau can play an important role in making agricultural alternative energy production a viable industry. Florida Farm Bureau can continue to support the development of sound policy by providing opportunities for members to make sensible, informed decisions on matters dealing with alternative energy, then working to implement these policies at both the state and federal levels.

Financial Commitments

Development of renewable energy production in Florida will require strong financial commitments. Florida Farm Bureau can work with various financial groups to educate them on new business opportunities for Florida farmers. It will be important for Florida Farm Bureau to work to educate members about the financial needs of this emerging industry. Florida Farm Bureau can support lending opportunities for agricultural energy production, encourage funding through government grants, tax incentives, etc and facilitate meetings between Farm Bureau members and individuals or groups that may provide financing.

Marketing

Marketing alternative energy products and concepts may be the most critical area for success. Florida Farm Bureau can encourage FDACS to develop and implement a marketing plan that promotes agriculture's production of alternative energy. Florida Farm Bureau can also work to educate members on ways to market alternative energy and marketable byproducts to possible end users.

RECOMMENDATIONS

The Florida Farm Bureau Energy Task Force believes that Farm Bureau should work to promote agricultural energy production by working in the five areas stated above. From these broad ideas come some specific areas that the Energy Task Force recommends that Florida Farm Bureau take action both organizationally and in the legislative and public policy arena.

At the current time the Task Force recognizes that because of current staffing responsibilities, the organization may not be able to fully implement each of the following recommendations.

Organizational

- Florida Farm Bureau should retain its Energy Task Force with focus on increasing member profitability from areas related to alternative fuels.
- Florida Farm Bureau should focus its efforts on supporting policy and legislation that promotes agriculture's role in alternative energy production.
- Florida Farm Bureau should provide educational opportunities for members (ie. workshops, seminars, issue briefs, etc).
- Florida Farm Bureau should continue to use its publications to keep members informed about alternative energy.
- Florida Farm Bureau should consider the feasibility of establishing an Energy Advisory Committee or Task Force if it becomes necessary. (The Task Force does not believe such a committee is necessary at this time.)
- Florida Farm Bureau should investigate possibilities and potential profitability of trading carbon credits.
- Florida Farm Bureau should continue to develop and improve working relationships that foster the development of alternative energy from agricultural sources.
- Florida Farm Bureau should support Florida Department of Agriculture efforts to develop and promote a marketing campaign designed to gain support for alternative energy from agriculture (ie. Farm to Fuel, etc).

- Florida Farm Bureau should encourage members to seek information on new business models like new generation coops.
- Florida Farm Bureau should encourage members to fully investigate any energy initiatives before investing.

Legislative and Public Policy

- Florida Farm Bureau should continue to support legislative and policy proposals that:
 - support the concept of agricultural based energy production.
 - support the ability of agricultural producers to be able to sell renewable sources of energy back to the grid through net metering.
 - support carbon sequestration from agriculture being fully recognized in any cap and trade system.
 - support establishment of alternative energy processing facilities.
 - support the national standard for mixed fuels.
 - support the Farm to Fuel Initiative.
 - support establishment of a FDACS Florida Farm to Fuel Advisory Committee.
 - support development of a clearinghouse for the different technology providers that are bidding for our farmer's attention.