



TESTIMONY OF STEVE FLICK  
NATIONAL FARMERS UNION  
PREPARED BY NFU STAFF

SUBMITTED FOR THE RECORD TO THE  
U.S. SENATE COMMITTEE ON AGRICULTURE

TO DISCUSS ENERGY AND ECONOMIC GROWTH IN RURAL AMERICA

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# Introduction

Chairwoman Stabenow, Ranking Member Roberts and members of the committee, thank you for inviting me to testify today on the Energy Title of the 2012 Farm Bill and how we can continue to provide energy and economic growth in rural America. My name is Steve Flick and I am a Missouri Farmers Union member and the founder and board chairman of Show Me Energy Cooperative, a next-generation biorefinery owned by 612 farmers in Western Missouri. Today I am testifying on behalf of National Farmers Union (NFU), an organization that has been representing family farmers and ranchers since 1902. NFU is the second-largest general farm organization in the United States and has members in all 50 states, with organized divisions in 32 states. NFU is also a member of the Agriculture Energy Coalition, a membership-based coalition committed to what I will be testifying in support of today: a strong bipartisan energy title in the 2012 Farm Bill.

NFU supports a balanced energy policy that seeks energy independence by 2025 for the United States and, at the same time, protects our nation's environment and recognizes the special energy needs of America's agricultural sector and its potential contributions. We support a broad policy framework and the Farm Bill Energy Title is especially important in reaching the goal of energy independence and promoting rural economic development. Specifically, we support an Energy Title that includes robust funding for the Rural Energy for America Program (REAP), Biomass Crop Assistance Program (BCAP) and the Biorefinery Assistance Program.

NFU acknowledges the challenging budget environment that Congress faces, and we agree that agriculture should do its part to help to get the U.S. fiscal house in order. However, we must be careful not to eliminate successful incentives that are currently creating jobs in rural America, stimulating economic development, creating new revenue streams for farmers and ranchers, and reducing our nation's dependence on foreign oil.

Show Me Energy Cooperative is a perfect example of how farm bill renewable energy programs are successfully working to spur rural economic development, create jobs and begin to wean our nation off our addiction to foreign oil while at the same time protecting our environment. Show Me Energy is in the business of growing, processing and refining dedicated energy crops into fuels that provide energy security for the U.S. The cooperative provides numerous good paying jobs for families in the region.

On May 5, 2011, U.S. Secretary of Agriculture Tom Vilsack announced the approval of the first BCAP project area, covering approximately 50,000 acres in 38 counties in Missouri and Kansas. Individual farmers within the boundaries of the project area can now sign contracts with the U.S. Department of Agriculture (USDA) to grow dedicated energy crops. Show Me's plant in Centerview currently pelletizes the crops into biomass fuel for space heat and electric power. Eventually our technology will provide liquid fuels that can replace gasoline and diesel. I am proud of Show Me's progress to date and I am confident that with continued funding of energy title programs like BCAP, even greater numbers of farmers and ranchers will usher in a new generation of biofuel feedstock growers and biorefineries.

# Benefits of Renewable Energy Programs

For years, renewable energy of all sorts has served as a significant boon for rural America. It provides well-paying jobs and helps support local economies. In today's rural America, there must be economic opportunities available such as renewable energy for young people to stay in their communities.

## *Biofuels*

The genesis of renewable energy began in rural America with the development of ethanol plants in the 1970s and 1980s. At the time, corn farmers were looking to add value to rock bottom corn prices in order to stay on their farms. So, farmers came together and started forming ethanol plant cooperatives. The model proved a success and the ethanol industry took off with the help of government support. At the time, serious oil supply shocks from the Middle East necessitated the emergence of an alternative to oil. American ethanol became a viable solution to achieving energy independence.

The relationship between oil consumption and biofuels is a clear national security issue. Despite ethanol's success over the years in reducing our nation's dependence on foreign oil, the U.S. is still at the mercy of supply shocks from overseas. The recent uprising in Libya and threats by Iran to choke off oil supply routes are just the latest examples.

In response to oil supply shocks, other countries such as Brazil have made impressive gains in reducing oil consumption by creating policies to increase ethanol consumption and infrastructure. It is important that the U.S. not take its foot off the gas on an industry that not only provides national security benefits, but also provides jobs and keeps our country on the cutting edge of this strategic sector of our economy.

Oil is currently trading at over \$100 per barrel, while ethanol prices are trading at significantly lower prices. Because ethanol is cheaper and is currently blended into gasoline, gas prices are markedly lower than they would be if we did not blend ethanol. In fact, according to researchers at Iowa State University and the University of Wisconsin, ethanol reduced the price consumers pay at the pump by 89 cents per gallon in 2010.

The main policy driver of the biofuels market is the Renewable Fuels Standard (RFS), created under the Energy Policy Act (EPA) of 2005. It mandated that the U.S. produce 7.5 billion gallons of renewable fuel by 2012. The Energy Independence and Security Act (EISA) of 2007 updated the RFS and required that 36 billion gallons of renewable fuel be produced by 2022. Of those 36 billion gallons, 15 would be conventional biofuels and the rest would be cellulosic and other advanced biofuels.

It is clear that the industry is already an important part of our nation's economy and contributing to reducing dependence on foreign oil. According to the Renewable Fuels Association (RFA), in 2010 the U.S. ethanol industry helped employ over 400,000 people. It also contributed \$53.6 billion to the national GDP, added \$36 billion to household income, and displaced the need for 445 million barrels of oil. Even more significantly, biorefineries support local jobs and serve as

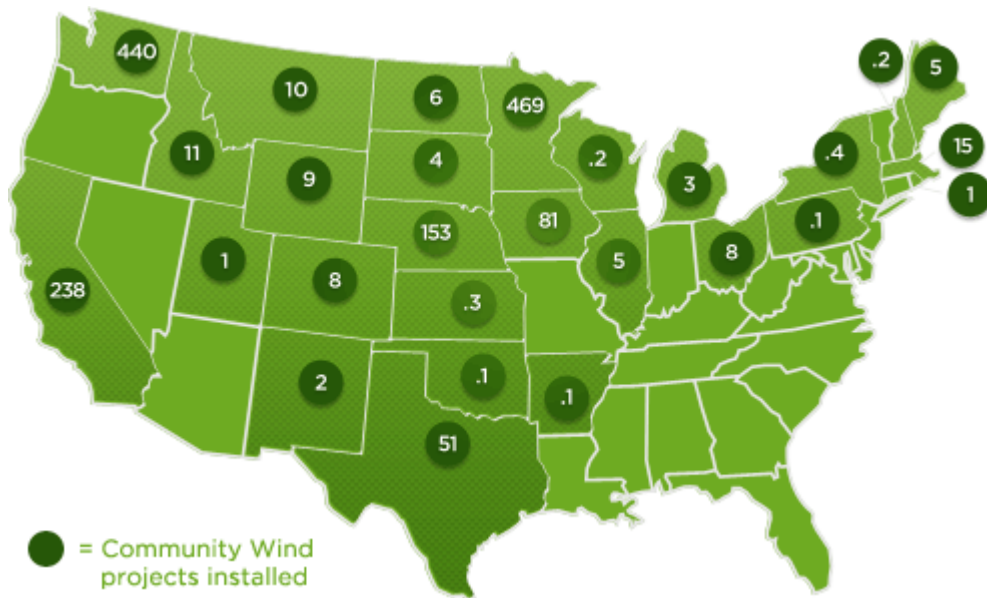
an economic multiplier in rural America. A 100 million gallon per year biorefinery adds \$367 million to local GDP. That same biorefinery helps create 2,400 new jobs all the way from the biorefinery down to the agricultural sector. As a result, local household income is increased by \$100 million.<sup>1</sup>

*Wind, Solar, Biomass*

Beyond biofuels, other renewable energy technologies such as wind, solar, and biogas are also transforming rural economies and creating jobs and new income streams for farmers and ranchers nationwide.

Wind power is one of the great rural economic success stories. There are two main types of wind energy generation: large, commercial scale projects and smaller, community wind projects. According to the American Wind Energy Association (AWEA), commercial scale projects account for 98 percent of installed wind power. Landowners can receive lease payments from these types of projects up to \$120,000 over a 20 year period. Lease payments serve as an additional revenue stream for farmers and ranchers and payments are more stable than commodity prices.

On the other hand, community wind is much smaller in size but has a significant local ownership component not present in traditional commercial scale projects. According to AWEA, community wind is defined as any wind project of 20 megawatts (MW) or smaller in nameplate capacity or a project larger than 20MW up to 100MW in nameplate capacity where local owners own at least one-third of the project. While community wind represents a smaller portion of total U.S. wind capacity, in 2009 community wind represented 5.9 percent of installed wind in the U.S (1,521 MW).

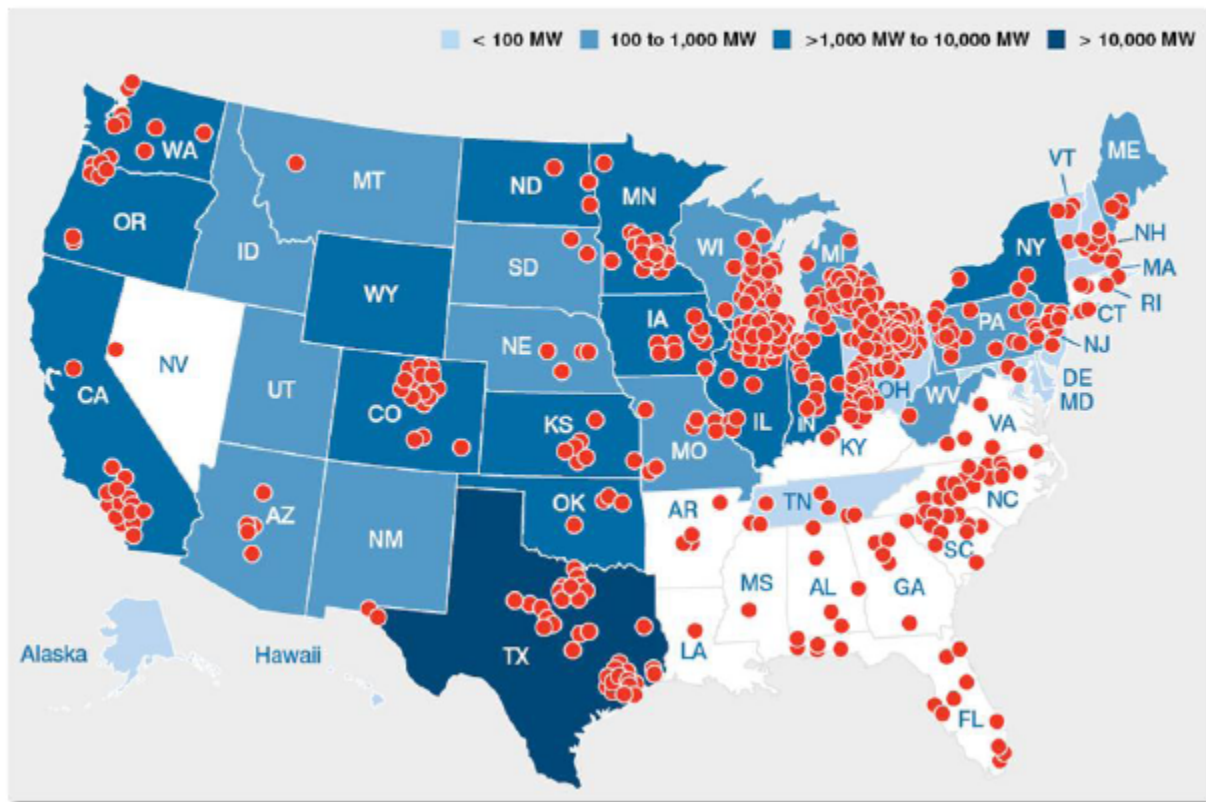


<sup>1</sup> "Contribution of the Ethanol Industry to the Economy of the United States," LECG, LLC, Feb 2008.

Community wind can lead to even more rural economic development than traditional commercial scale projects. Because of the significant local ownership of wind projects, much of the profit is retained in the community. This additional money is then recycled in the local community, creating jobs and spurring local economic development. According to a study by the Energy Foundation, two to five operations and maintenance jobs are created for each 50-100 MW in capacity, while each megawatt under construction provides 1-2 jobs plus revenues for local businesses. Landowners can also earn \$2,000-\$10,000 annually per turbine depending on the level of production and royalty rate. Finally, each 100 MW of additional capacity generates annual property tax payments of \$500,000-\$1 million. This adds up to a significant boon for local economies.<sup>2</sup>

The wind industry is leading to significant economic results up and down the supply chain. Not only do wind projects provide additional revenue streams for rural landowners, they support jobs for construction and maintenance of the turbines and a robust manufacturing industry.

## Wind Manufacturing Facilities

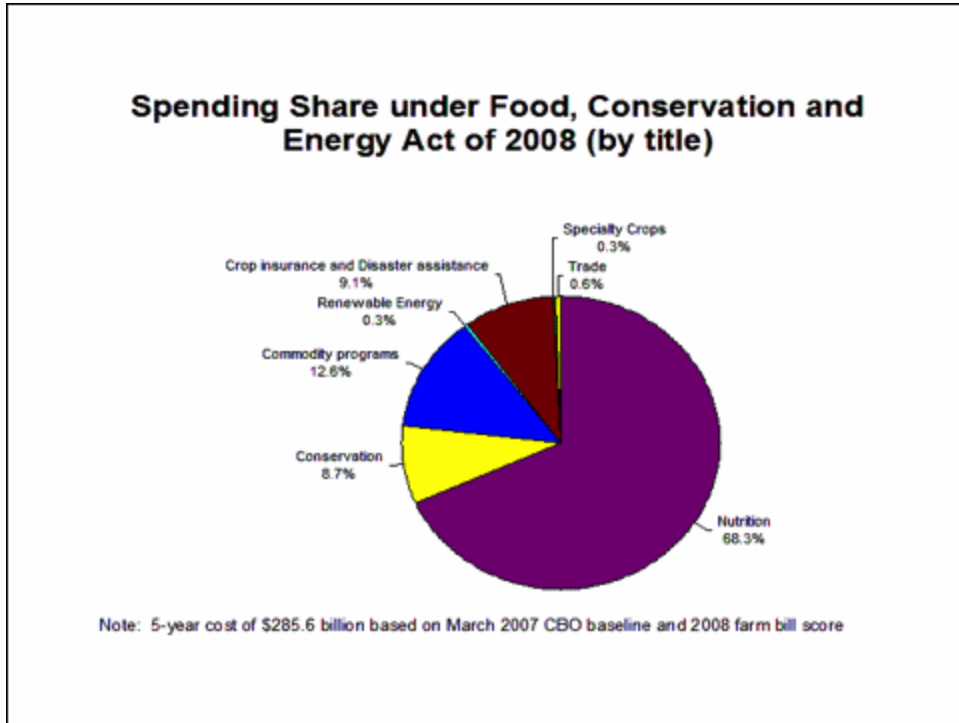


## Specific Energy Title Programs

The bipartisan-backed Energy Title of the 2008 Farm Bill included \$1.1 billion of mandatory funds and \$1 billion of discretionary funds for renewable energy programs. The Energy Title

<sup>2</sup> Community Wind 101: A Primer for Policymakers [http://www.ef.org/docs/CommWind\\_web.pdf](http://www.ef.org/docs/CommWind_web.pdf)

contains eight programs with no baseline past Sept. 30, 2012. According to the March 2010 Congressional Budget Office (CBO) baseline score, extending the energy title programs five years would cost \$1.9 billion- a tiny fraction of the total cost of the farm bill. In fact, the Energy Title only accounts for less than 1 percent of farm bill spending and produce outsized benefits.



Preference for grants and loan guarantees for renewable energy facilities should be given to projects with significant local ownership for all farm bill energy programs. The next farm bill should include incentives for local development and ownership of renewable energy production in all forms. Local ownership by farmers, ranchers and rural communities of renewable energy resources retains economic benefits for rural communities. According to the National Renewable Energy Laboratory (NREL), locally owned wind projects generate 2.6 times more jobs and 3.1 times more rural economic benefit than those with outside ownership.<sup>4</sup> A study by Oregon State University found that local ownership of wind turbines would result in five times the annual projected income versus entering into a land lease agreement.<sup>5</sup>

At a time when economic realities often provide incentives for rural residents to move into cities, farm bill energy programs are keeping high-skilled jobs in rural America. These programs create an additional revenue stream for farmers and build new markets while reducing pollution and improving the environment.

<sup>3</sup> Agriculture Energy Coalition

<sup>4</sup> National Renewable Energy Laboratory

<sup>5</sup> Oregon State University, 2006

There are also significant energy security benefits associated with these programs. Programs such as REAP, BCAP and Biorefinery Assistance reduce energy consumption on farms through energy efficiency upgrades and have led to distributed energy projects from local energy sources.

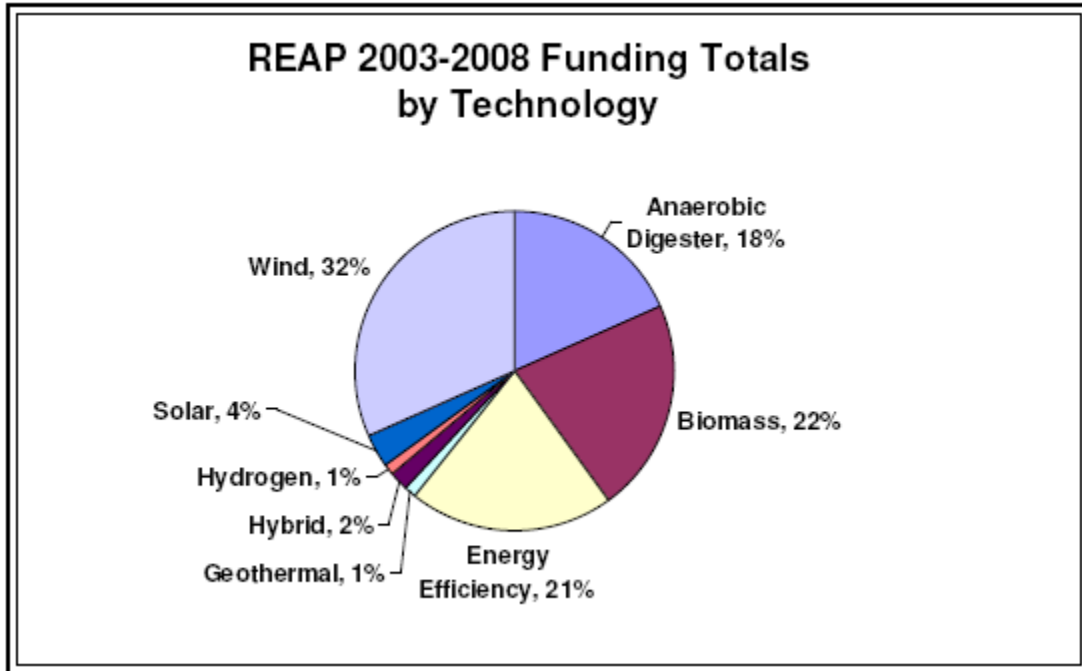
It is crucial that Congress continue funding for these vital programs while we are on a path toward a stronger rural economy and increased energy security. We must address our nation's budget issues, but we must not throw the baby out with the bathwater. If we end our funding for these critical programs, we risk ceding the clean energy race to the Chinese and Europeans who are redoubling their efforts in this industry of the future.

#### *Rural Energy for America Program (REAP)*

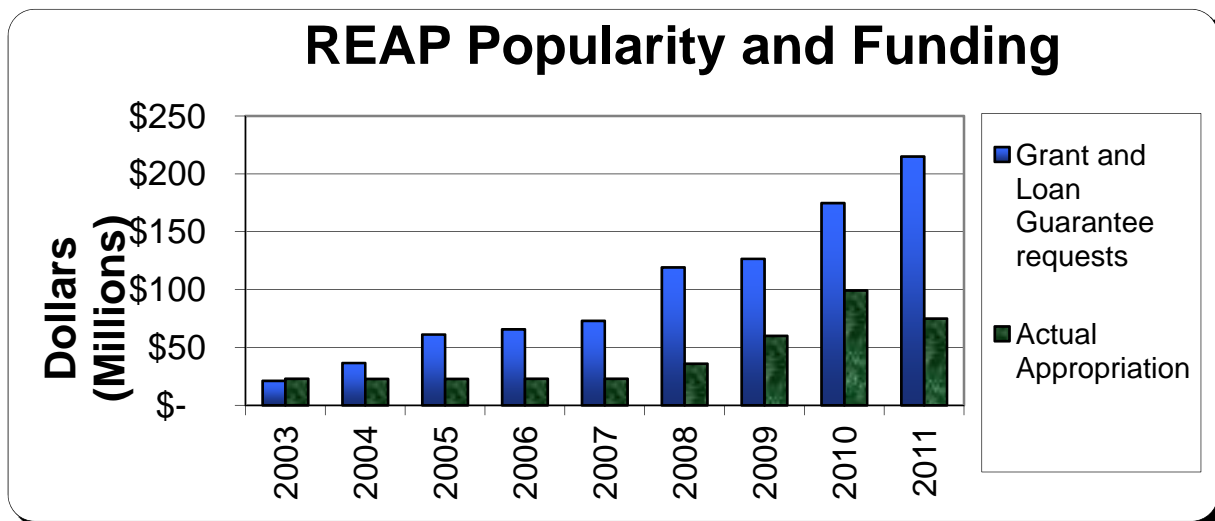
Created in the 2002 Farm Bill, REAP provides grants and loan guarantees for energy efficiency and renewable energy projects, including biofuels and flex fuel pumps, anaerobic digesters and other biomass, geothermal, solar, and wind projects. It also includes support for feasibility studies and energy technical assistance. Because it supports such a broad range of technologies, REAP has been utilized in all states to fund the renewable energy technology appropriate to the location.

REAP funds critically important flex fuel pumps. With the goal of installing 10,000 flex fuel pumps nationwide, the USDA has signaled its clear support for the build out of biofuels infrastructure critical to creating a level playing field with traditional gasoline. REAP is the only federal program that funds this expansion of flex fuel pumps so it is vital that REAP include funding for the expansion of biofuels infrastructure.

The program also funds the development of locally-owned energy projects, including community wind. Farmers and ranchers can take advantage of grants for feasibility studies to determine if their land has ideal resources for wind. These smaller grants for meteorological towers are crucial for many landowners considering installing a wind system on their property.

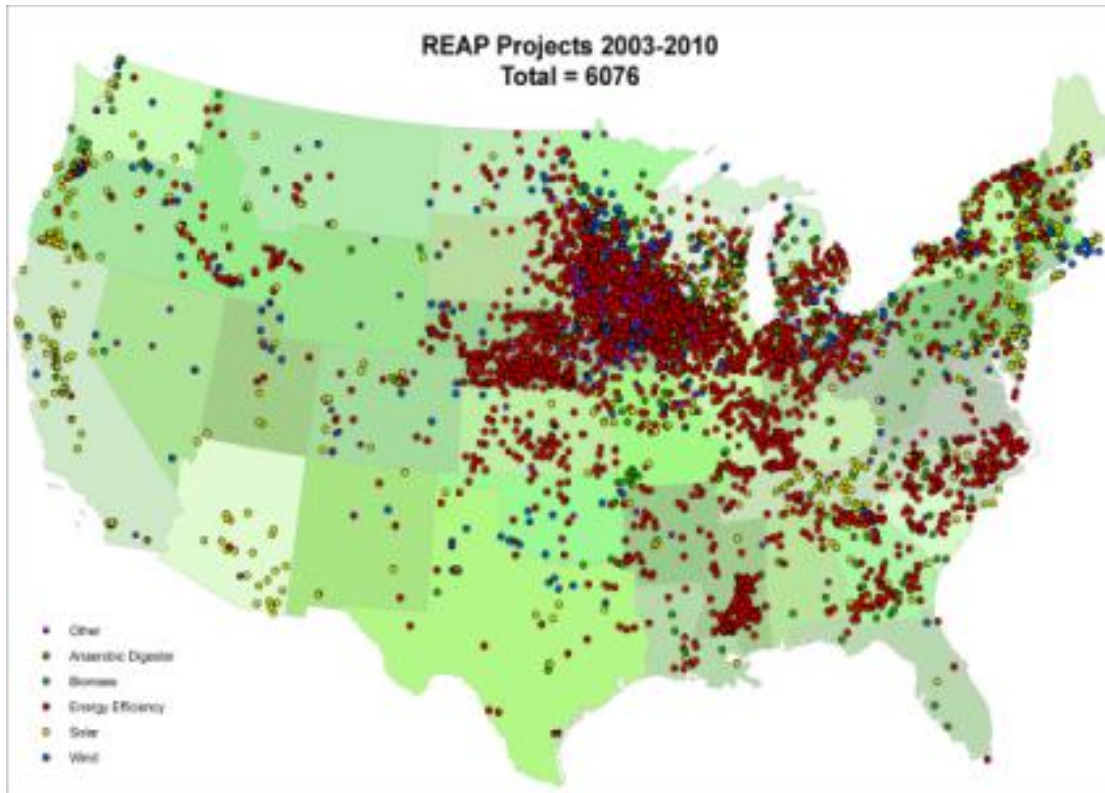


An incredibly popular program, demand for REAP funding far outpaces available resources by nearly a 3 to 1 margin.

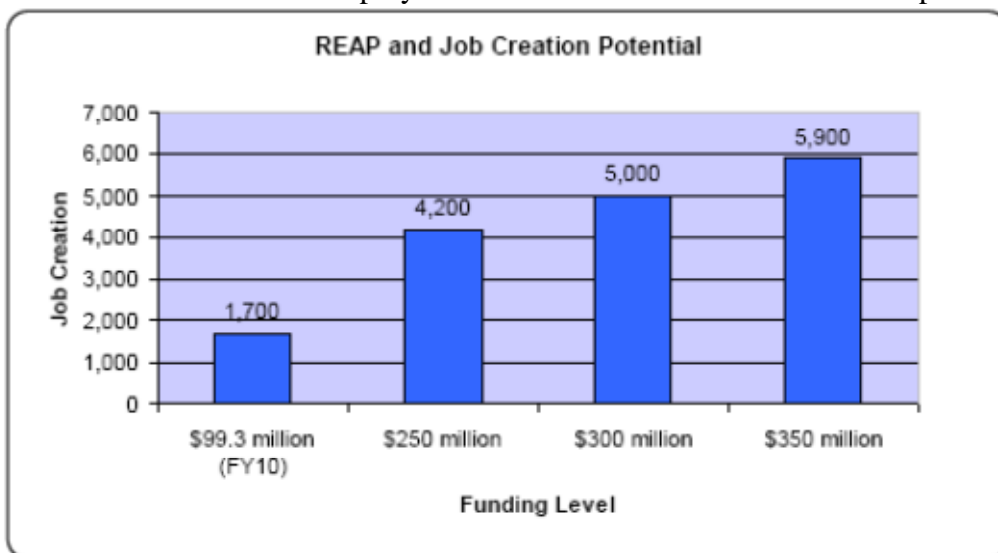


To date, there have been REAP funds awarded in every state, totaling over 8,000 projects. According to USDA Rural Development, in FY 2011, REAP helped fund over 2,000 projects, provided grants and loans totaling \$17,268,083 and saved or generated over 2,000 MWh. Since 2003, REAP has saved or created approximately 21,688 jobs.





According to the Environmental Law and Policy Center (ELPC), with higher job creation levels than most other government-funded programs, REAP could create between 5,900 and 6,300 jobs in the US per year at a funding level of \$350 million a year. The funding level in 2010 was \$99 million and the USDA reports it created 1,700 jobs and saved another 500 jobs. The jobs analysis is based on economic and employment data from the USDA and U.S. Department of Commerce.



REAP has excellent job creation ability because it leverages private capital. REAP's maximum grant amount is 25 percent of the project's total capital cost. According to USDA, in 2011, REAP awarded \$57 million in grants and \$34 million in loans. This leveraged an additional \$374

million in private capital with a total of \$465 million of investments stemming from REAP, a 4 to 1 ratio of total investment per federal dollar spent. According to USDA, in FY 2009, 2010 and 2011, REAP created around 15,000 jobs.

### *Biorefinery Assistance Program*

The Biorefinery Assistance Program provides grants and loan guarantees to help build advanced biorefineries and is critical to jumpstarting advanced biofuels production. The program is the only federal program to do this and guarantees up to 90 percent of a private loan (up to \$250 million per plant) and up to a 30 percent grant for demonstration-scale plants. Loans can be used to retrofit existing biorefineries or construct new advanced biorefineries.

So far, USDA has approved 8 loans totaling \$647,675,000. These projects will leverage \$1,049,200,638 in other funding outside the Biorefinery Assistance Program. These projects are projected to create 461 jobs.

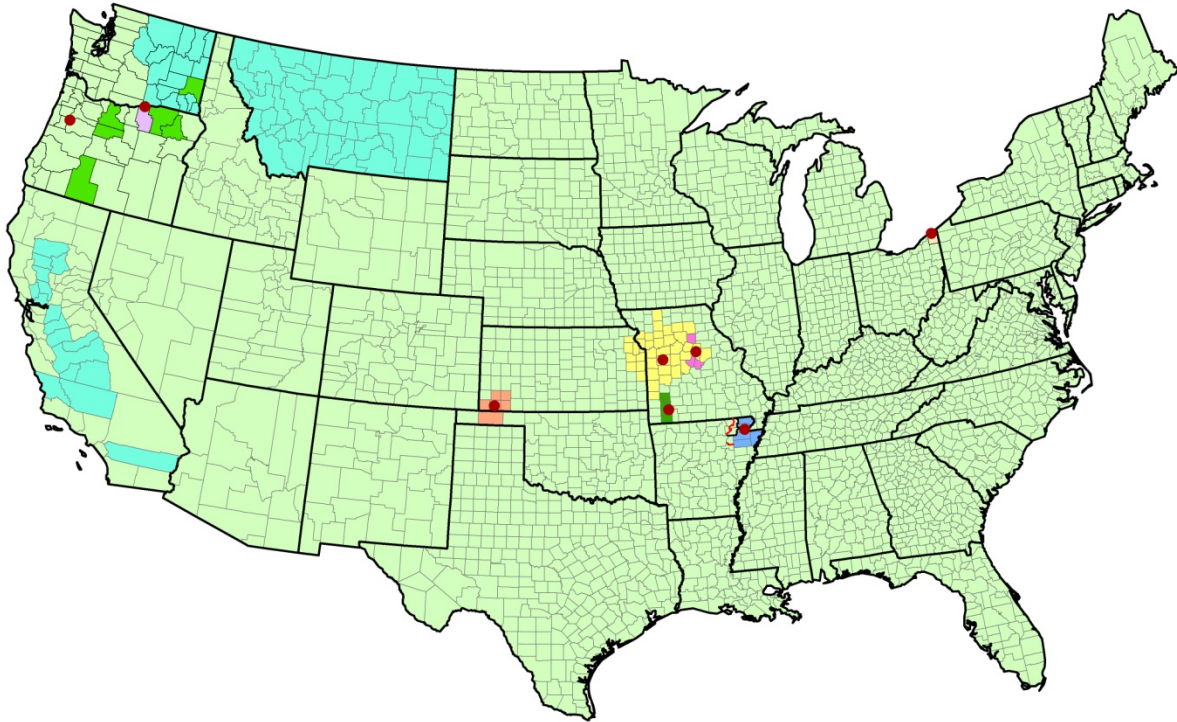
### *Biomass Crop Assistance Program (BCAP)*

BCAP is the first-ever energy crop program to help encourage farmers to grow sustainable energy crops such as switchgrass. The primary goal of the program is to assist in commercializing cellulosic ethanol. The transition to this next generation of biofuels is critical if we are going to meet the goal of 36 billion gallons of biofuels by 2022 established in the RFS. BCAP is the only federal farm program that seeks to accomplish this transition so it is critical that robust funding be made available going forward.

There are two types of support through BCAP: establishment and annual payments and matching payments. Establishment and annual payments for up to 75 percent of the cost for growing energy crops dedicated for production of cellulosic biofuels are given to farmers. The payment is guaranteed for up to five years for non-woody crops and up to 15 years for woody crops. Matching payments are given to producers for the collection, harvest, storage and transportation of cellulosic feedstocks for use in an advanced biorefinery.

BCAP helps solve the chicken and egg scenario with commercializing the next generation of biofuels. By incentivizing farmers to grow cellulosic feedstock through matching and annual payments, advanced biorefineries can be assured of a steady stream of feedstock necessary for operation. Outside investors will then feel more comfortable financing a commercial-scale plant because they know there will be feedstock supply. Likewise, farmers will grow the dedicated energy crop because there is a guaranteed market from the biorefinery.

## Current BCAP Project Areas



USDA has made great strides in perfecting the implementation of BCAP to establish new energy crop production to lead to the commercialization of cellulosic biofuels. In the BCAP final rule, USDA limited the Matching Payment component of BCAP and issued new rules for Establishment and Annual payments. We encourage Congress to adopt the language of the USDA Final Rule in the 2012 Farm Bill. The continuation of BCAP is vital to rural America and our ability to produce clean, advanced biofuels.

According to USDA, in FY 2011, BCAP provided an investment of approximately \$54 million in obligations to nine project areas amongst 168 counties in 10 states. With the intent of producing advanced biofuels, fuel pellets, drop-in jet fuels and biobased products, 860 contracts were approved, supporting the production and establishment of 49,908 acres of dedicated energy crops. USDA has estimated that 700,000 new jobs can be created from continuing the BCAP program.

## Show Me Energy

As I mentioned before, I am the Board Chairman of Show Me Energy Cooperative. BCAP helped our cooperative tremendously and I am confident that with continued implementation,

BCAP will lead to the proliferation of advanced biorefineries and American farmers providing power, heat, and liquid fuels in commercial quantities.

In 1983, I purchased my own farm by saving money from hauling hay before and during college. My operation has continued to expand and diversify and we are now in the biomass business. In 2008, Show Me Energy Cooperative built its first biorefinery, creating 21 direct jobs and 516 indirect jobs. Our entire board consists of volunteer farmers and producers. Our mindset from day one was that this country was built with the simple mechanics of hands-on farmer innovation. Our members were committed to accomplishing the same in building the first biorefinery.

Show Me Energy's farmers succeeded. We built our first biorefinery, which currently produces a biomass pellet that is used to heat homes, livestock barns, and produces power. In 2009 Show Me Energy partnered with our local electric utility to test burn around 29,000 tons of biomass pellets with coal so that we could learn how the fuel would react and how it could be utilized to reduce pollution. From this experiment, we learned that biomass and coal can successfully be combined in old boilers and power plants. We are currently negotiating a Power Production Agreement (PPA) with local utilities to generate base-load power from the biomass at our facility.

BCAP is the program that led to the next phase in our cooperative's development. In May 2011, Show Me proposed a BCAP "energy hub" area under FSA guidelines to cover 32 counties in Western Missouri and 7 counties in Eastern Kansas. The proposal was to grow native grasses on marginal land under a program called "Plant Baby Plant". Under the program, these native grass poly-cultures will harvest the power of the sun, developing through the typical growing seasons and will be harvested for their cellulose content by farmers after a killing freeze, through round or square bailing. Farmers in the project area seized on the opportunity and signed up their acres. On May 1, 2011 signups began at all the local FSA offices. By September, 26,000 acres were enrolled. Farmers will begin the process of planting energy crops on these acres early this year.

Show Me Energy's BCAP project will be deployed over 39 counties. In the process, it will lead to the creation of hundreds of direct jobs and thousands of indirect jobs. By planting 26,000 acres yielding an average of 5 tons per acre, we will produce 130,000 tons or 115,000 typical large round bales. Thousands of farmers in our part of the country will be growing energy crops. BCAP's initial assistance will be used to purchase sheer bolts, twine, wrap and other supplies in order to achieve the added expansion of harvesting and bailing their new energy crops. Equipment dealers, insurance vendors and truck salesmen will all benefit as a result.

In the next phase of our project, we plan for our BCAP area to provide the necessary feedstock for our biorefinery's next phase-manufacturing jet fuel from butanol. Our goal is to produce 3 million gallons of high quality fuel for the Department of Defense from dedicated energy crops produced in our decentralized feedstock area.

## **Conclusion**

As it relates to Show Me Energy Cooperative, I strongly believe that Congress needs to adequately fund BCAP and the rest of the Energy Title. As I mentioned before, we recognize that there are obvious constraints on the budget. However, programs like BCAP, REAP and Biorefinery Assistance should not be seen as a handout, but rather a hand up that will change the way we live in rural America. It will change the way we produce energy and it will change us as a country for the better.

The United States is a country with unlimited potential to do great things. We have overcome major obstacles in the past with our ingenuity and can-do attitude. I strongly believe that America's farmers, ranchers and rural residents have a bright future ahead of them with the right incentives. Renewable energy is the future of rural America. As such, I urge your Committee to pass a Farm Bill this year with a robust energy title to continue essential progress on these vital renewable energy programs.

On behalf of the members of National Farmers Union and Show Me Energy Cooperative, thank you for the opportunity to outline our priorities.