

**Testimony
of
Pat George
Secretary, Kansas Department of Commerce**

before the Interim Joint Committee on Energy and Environmental Policy
1:30 p.m., Tuesday, October 18, 2011
Room 152-S

Good afternoon, Mr. Chairman, and members of the Committee. I am pleased to be here today to update the Committee on the reallocation of American Recovery and Renewal Act (ARRA) funds from the Kansas Corporation Commission's Kansas Energy Office to the Department of Commerce.

On September 13, it was announced that \$20.5 million in unspent ARRA funding would be transferred to the Department to be invested in two projects intended to increase energy efficiency and spur economic development in Kansas. The first project is intended to increase biomethane production, and the second is to improve the harvesting and delivery of biomass products.

The state will invest almost \$15.6 million for the purchase of biomethane digester equipment technology at an ethanol facility operated by Western Plains Energy near Oakley. The company's onsite power plant will be converted to use biomethane produced from cattle manure instead of from natural gas to power the bio-fuel production process. The company will partner with Pioneer Feeders, also located near Oakley, to supply manure for the Western Plains facility.

For the second project, the state will invest \$4.9 million to support a biomass harvesting, handling and delivery demonstration project. Funding will go to the Wichita-based Kansas Alliance for Biorefining and Bioenergy (KABB) to purchase advanced harvesting and transportation equipment to deliver a more efficient process for getting biomass feedstock to the plant. The plan is to deploy the equipment primarily in the northeast and southwest parts of the state.

As I said, each project will help increase energy efficiency and expand economic activity in the state. The biomethane production project will position Kansas at the very cutting edge of advanced renewable bio-fuels production. The state leads the nation in sorghum production and feedlot cattle production, and this project integrates two agricultural sectors to produce an advanced, renewable bio-fuel that will help reduce foreign oil dependence and completely replace fossil fuels in the production of bio-fuels at the Oakley facility.

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Meanwhile, the biomass supply chain project would help solve a major logistical bottleneck for cellulosic renewable fuel production and could result in a reduction by 50 percent of diesel fuel consumption and associated greenhouse gas emissions in the harvesting and transportation of bio-mass for bio-fuel or renewable electricity production.

In regards to job creation, both projects are expected to create around 150 jobs between them.

The U.S. Department of Energy (DOE) oversaw the approval of both projects with the support of the U.S. Department of Agriculture (USDA). We also announced on September 13, in conjunction with the KCC, that \$1.5 million of the funding originally slated for the alternative fuel project will remain with the Kansas Energy Office.

These projects fit into the Brownback Administration's goal of making Kansas a national leader in the renewable energy sector. They will help spur industry innovation, provide for a cleaner environment, grow the Kansas economy and create much needed jobs.

The Committee undoubtedly has questions regarding the selection process for these projects by DOE. Project selection was based on the following:

1. The projects had to be eligible for receiving ARRA funding from DOE.
2. The projects had to pass National Environment Policy Act (NEPA) reviews.
3. The projects had to provide environmental and energy benefits.
4. The projects needed to provide economic development benefits or long-term economic impact.
5. The projects needed to be ready to go on short notice, as the ARRA funding needed to be completely invested by March 31, 2012, or it had to be returned to DOE.

It should be noted that the Department of Commerce worked together with the KCC to pull these projects together and move them through the approval process on a very short time frame.

The Administration believes these projects will provide a high return on investment for the state and help position Kansas to develop and implement similar projects in the future.

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Western Plains Energy, LLC

Western Plains Energy, L.L.C. (WPE) has announced its intentions to build and operate an anaerobic digestion facility co-located with the existing 50 mgy ethanol plant located in Gove County. This project will directly benefit the economy of Northwest Kansas. Additionally, this project will be the largest of its kind in the United States, if not the world. The advantages of this system will be a benefit, not only to WPE, but the state of Kansas and agriculture across the Midwest. The combination of anaerobic digestion with ethanol derived from grain sorghum will position Kansas as the nation's leader in Advanced Biofuel production as well as revive the grain sorghum industry in a part of Kansas suffering from the recent drought and depleting aquifer.

Direct impacts from this project will include the addition of between 15 to 20 direct employees and 100 construction jobs. Indirectly, the project will effect the employment of another 15 to 20 full time transportation jobs. Western Plains Energy, L.L.C. is already the largest property tax payer in Gove County, a county with a population of less than 2500 people. This increase in employment will add to the local tax base and continue to employ an ever growing portion of the local work force. In the past 10 years Gove County has experienced a population decline of 19.2%. This project will help stabilize the population by providing long term employment opportunities to the local area.

The WPE project will provide an answer to an environmental issue that is gaining attention with the Environmental Protection Agency. The federal Clean Air Act places emphasis not only on air emissions, but also on water quality. Kansas is a leader in beef production nationally. The practice of land application of manure has come under increasing scrutiny by EPA in recent years. Manure from CAFO operations is high in both nitrogen and phosphorous. This project demonstrates an economical solution to this problem. First, both nitrogen and phosphorous are required nutrients in the ethanol process. The effluent from this project will be utilized in the ethanol facility where a large portion of these elements will be consumed. The solids removed from this process can be utilized as an organic, pathogen free fertilizer. This fertilizer can be used in agriculture as well as packaged for commercial use as well.

The federal Energy Security and Independence Act of 2007 set forth increasing amounts of biofuel use as well as capping traditional corn-starch based ethanol production at 15 billion gallons annually. Within this Act, it is required that the US to begin to utilize what is classified as **Advanced Biofuels**. Advanced biofuels must meet two distinct definitions. First, an advanced biofuel can not be derived from corn starch. Second, the green house gas (GHG) emissions of the fuel must be at least 50% lower than gasoline. Kansas is the nation's largest producer of grain sorghum. In order to classify as an advanced biofuel producer, traditional ethanol facilities such as WPE must dramatically reduce their GHG footprint. By combining the existing ethanol facility with the anaerobic digestion facility it is estimated that the GHG footprint of WPE will be 50.11% lower than gasoline. Biofuel production has been crucial in sustaining agriculture within Kansas. In order to grow, biofuel production will have to do so without the use of corn. This project provides the path forward for a vital Kansas industry. This category of fuel will have the first year of actual gallons required in 2012.

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This requirement begins at 500 million gallons in 2012 and increases to 2 billion gallons by the year 2016. There are currently no domestic producers of ethanol that can qualify as an Advanced Biofuel. Finally, this project will greatly reduce the required amount of fossil fuel used in ethanol production. The amount of natural gas that this project will displace is the equivalent of 6000 homes.

This past summer, Governor Brownback held an economic summit dealing with the topic of the Ogallala Aquifer. Specifically, the summit dealt with the reality that this vital Western Kansas resource is depleting and it is no longer an issue of how do we save the aquifer, but instead how do we extend the life of the aquifer. The obvious answer is the reduction of the use of crop irrigation. This is no simple solution as water rights are, for the most part, property rights held by individual landowners. In order for farmers to reduce the amount of water used for irrigation, they must have an economical incentive. In the case of advanced biofuel production, this incentive can come in the form of a market-based influence. Advanced biofuel producers utilizing grain sorghum will be able to place competitive bids for grain sorghum encouraging farmers to plant the crop.

This grant is vital in the completion of this project. As stated above, there is no facility of this type currently in the US. In a time of great economic difficulty nationally, credit can be difficult to obtain. In addition to the grant, WPE will be acquiring debt as well. The total cost estimate of this project is approximately \$35 million. WPE has a proven history of financial strength. In the early part of the past decade, WPE received grants of approximately \$8 million to aid in the initial construction of WPE. This investment came at a period of time when the ethanol industry we take for granted today did not exist. Between 2004 and 2010, WPE has generated an estimated \$46 million in federal and state tax revenues. WPE currently contributes in excess of \$650,000 annually in property taxes to Gove County. Today, the ethanol industry has dramatically grown in size. Without this investment by government, this growth would not have happened. WPE is structured as an L.L.C., therefore any income generated by the success of WPE does not stay with a corporation but is instead passed through to the members. These members are responsible for the payment of taxes upon this income. It is estimated that this project will result in an increase of between \$4 million to \$10 million in taxable income annually.

Western Plains Energy plans utilize a portion of the AARA funds to help offset the cost of equipment and construction of the anaerobic digestion facility. No funds will be used in the payment of salaries or overhead of any type. This project will provide numerous benefits such as the creation of long term jobs in an area where population is declining, increase the tax income to the local and state economy while also addressing the water and fertilizer issues. Therefore, this grant is critical to this project which will provide a positive return to the Kansas economy while helping to address several environmental issues.

Sincerely,

Steven R. McNinch
CEO Western Plains Energy, L.L.C.
Oakley, Kansas



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The Kansas Alliance for Biorefining and Bioenergy is a non-profit, industry led and directed Center of Innovation focused on identifying barriers and solutions in the area of bioenergy.

KABB is cultivating the future of renewable energy by uniting key bioenergy industry players with world-class research and development resources to build innovative biorefining and bioenergy industries in Kansas.

With a \$4.1 million seed investment from the Kansas Bioscience Authority through the Centers of Innovation Program, KABB uses commercial refining assets to develop alternative fuels and chemicals, commercialize efficient biomass resources and improve carbon capture.

KABB's members include AGCO, Archer Daniels Midland, Edenspace, ICM, Black and Veatch, and Abengoa Bioenergy. KABB also includes world-class research institutions Kansas State University and the University of Kansas.

One of the central challenges for the development of advanced biomass based biofuels for both mobile transportation and for electrical power generation is an economic harvest and delivery of biomass to the renewable energy manufacturing facility. Simply put, corn stover, wheat straw, and dedicated energy crops must be harvested, stored, and transported at an economical cost.

The grant funding supplied by the Kansas Department of Commerce will be utilized to support a unique and at scale biomass harvesting, handling, and delivery demonstration project. The funding will purchase cutting edge advanced harvesting and transportation equipment to demonstrate a more-efficient process for getting biomass feedstock to the plant.

Kansas is home to an existing renewable fuels industry and has advanced bioenergy projects in progress, notably one of which is the cellulosic ethanol project in Hugoton announced by Abengoa. Supplying the biomass needs for the developing advanced bioenergy industry is a formidable challenge. This demonstration project will help to overcome this barrier to the growth of a domestic bioenergy industry by addressing the limitations of logistics systems for harvesting, handling and delivering a sufficiently high tonnage of feedstocks year-round. The need to drive down the cost of harvesting and delivering biomass is widely regarded as one of the key challenges of the developing biomass to energy industry.

KABB will utilize the funding to purchase advanced harvesting and transportation equipment that will allow them to demonstrate, at a commercial volume, an improved, more energy efficient process for harvesting, handling, and transporting to the plant renewable biomass. KABB is selected the equipment to purchase based on cost, labor efficiency, and energy efficiency. KABB will purchase the equipment, and make the equipment available through lease and for-hire services to harvest, transport, and deliver biomass to renewable bioenergy plants. The equipment is designed to harvest dedicated biomass crops and existing crop residue from typical Kansas farming operations. By using this advanced equipment, KABB estimates energy savings of 1,271,682 gallons of diesel fuel or on a btu basis, 178,035 MMbtu per year compared to conventional equipment, greatly improving the carbon footprint of biomass supply.

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To the extent that the development in Kansas of an efficient supply chain for biomass helps catalyze the build-out of advanced biofuel plants, total job creation impact of single 50 million gallon per year plant will support over 150 jobs.

KABB's first purchase was of a Stinger, a bale loader and edge of field transporter manufactured in Haven, Kansas. I have included a recent photo of this initial purchase.

In closing, we look forward to working with the Brownback Administration and Secretary George to make Kansas a leader in biorefining and bioenergy.

Jeff Roskam
KABB CEO