Alumni Spotlight

Ray Hammarlund
MAB Class of 2001
Director of Energy Programs
Kansas Corporation Commission

by Cristina Mansfield

The Alumni Spotlight focuses on an MAB alum and is written by Cristina Mansfield, a 2004 graduate.

Energy is a hot topic everywhere, especially for MAB grad Ray Hammarlund

When Ray Hammarlund enrolled in the MAB, he was still farming and ranching full time. Soon after, he joined the Kansas Department of Commerce where he handled a combined Agriculture Marketing and Community Development Division, administering both federal and state funds.

Given the current rural exodus, communities are challenged on many levels, including deterioration of infrastructure, loss of schools, and lack of diversity of the local economy. The Community Development office tries to answer the question: does the existing community have sufficient resources to maintain quality of life and basic human services while attracting business?

One of the fundamental impediments is the tendency of communities to think independently. “They need to start thinking on a regional basis – figuring out their strengths, assets, and core competencies. Rural areas in the U.S. have many assets, including a strong work ethic, lower cost of living, and attractive traditional lifestyle. But they suffer from consistent brain drain, lack of social outlets, and inadequate infrastructure – both in a traditional sense and in a new sense of high speed internet, etc.”

The concept of community development as a strategy to meet the challenges faced by rural America was new to Ray. His office advocated a regional approach to business development and today communities are finally moving past the barriers posed by administrative jurisdictions. For example, the Western Kansas Rural Economic Development Alliance unites 46 counties collaborating to elevate the economic profile of the region. One of the strategies has been the recruitment of dairy farmers being pushed out of California and New York. Today Kansas ranks as one of the top twenty dairy states.

At the Department of Commerce Ray was in charge of 23 staff and he quickly learned the importance of hiring good people. “Develop a set of two to three overarching strategies, give them their marching orders and trust them to do their job.” A second lesson learned relates to the importance of accessing the right skills. Few departments have all the necessary skills and need to hire professionals to complement in-house competencies. To illustrate, reviewing a regional community development proposal (e.g. bison production) requires examining it from every perspective. One of Ray’s clients remarked, “I have a good understanding of customers and can get the information across, but I am not a numbers person, so I farm that part out. My job is to put the product in the most favorable light. Communication is hyper important and it is important to avoid tunnel vision.”

Given his own boundless energy, it comes as no surprise that in 2007 Ray joined the Kansas Corporation Commission as Director of Energy Programs. Established in 1883, the KCC ensures that natural gas, electricity, telephone and transportation vendors provide safe, adequate and reliable services at reasonable rates. This is Ray’s first non-ag job and very fun intellectually. It helps that energy is one of the hottest topics worldwide – from recent controversy over building two new coal plants in Kansas to the price of energy at the gas pump.

The Energy Programs unit is responsible for outreach and education and aims to impart energy efficient ideas to the public. Activities include preparing educational materials, organizing conferences, and encouraging educators to develop curricula on energy efficiency. The next scheduled event is the Kansas Wind and Renewable Energy Conference to be held in Topeka September 23-24 (www.kcc.ks.gov). Also under Ray’s responsibility is the Facilities Conservation Improvement Program, in which KCC conducts audits of buildings to determine if there is energy efficiency. KCC then works with the Energy Services Company (ESCO) to determine what improvements need to be made.

What are current issues in the field of Kansas energy?

Certainly the greenhouse effect is uppermost in most people’s minds. The Intergovernmental Panel on Climate Change states in a report that the greatest chance for climate mitigation is energy efficiency worldwide, followed by agricultural and timber offsets or geological storage, i.e., capturing greenhouse gases and storing them in underground depleted gas fields or other geological formations.

One bushel of corn produces 2.8 gallons of ethanol – 1/3 CO2, 1/3 ethanol and 1/3 dried distillers grains. The energy content of a gallon of pure ethanol is about 70% of that of a gallon of gasoline.

One of the topics under discussion in the field of energy is the switch from grain- to cellulosic-based ethanol (plant stems). In the U.S., ethanol production is a two-step process, from starch to sugar to ethanol. This process requires different microbes for fermentation and very efficient processes of harvesting, storage and transportation. In Brazil and Cuba, a more efficient one-step process is used to transform sugar cane to ethanol. Forestry is another potential source of

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cellulosic ethanol.

Butanol uses the same process as ethanol but requires a different set of microbes and produces different end products. One of the main advantages over ethanol is that it does not absorb water, so it can be transported through a pipeline, currently the most efficient transfer method mechanism in the U.S. Given the ability of butanol to utilize existing pipeline infrastructure and its similarity to petroleum in energy content, butanol is a potential alternative to ethanol.

What about wind energy in Kansas? Due to its situation, Kansas has the third most potential wind resources in the country and as a result has been investing in wind technology. By the end of 2008, Kansas expects to be the 7th most productive state in the nation with over 1,000 megawatts of production. Kansas firms

Why has the price of gas increased?

- No new refineries in the U.S. have been constructed in the last quarter century. Many oil resources in the U.S. are not able to be developed due to Congressional mandates.
- Cheaper sources of oil have been fully depleted. The oil industry is using more expensive sources, countries considered to be unstable or higher sulfur-content crude that requires more refining. An example is accessing tar sand reserves in Alberta, Canada.
- The cost of transportation, labor, electricity and environmental compliance is going up.
- The dollar is weak.
- China, India (and other) demand for oil has increased tremendously.

Overall, Ray is happy with the experience he had in the MAB program and refers to the lessons learned in the program on a regular basis. Most importantly, the program taught him to be objective about the subject matter at hand and to keep an open mind.

“Absolutely, Ray offered. “Energy as subject matter has a lot of heat right now, but not enough light from an information standpoint. Perhaps I can help offer information to the marketplace for more informed decisions.”