

**Alliance for Sustainable Colorado
Regional Roundtable Meeting
Fort Morgan, CO
March 17, 2010, Wednesday**

INTRODUCTION

The Alliance for Sustainable Colorado (the Alliance) is hosting a series of eight regional Sustainability Roundtable meetings across Colorado between March and November, 2010. The purpose of the Roundtables is to bring together leaders from nonprofit, business, government and education sectors to determine key regional issues and challenges, as well as best practices and immediate opportunities related to sustainability for each region. The Roundtables are just one of a variety of collaborative activities hosted by the Alliance that enable people in multiple sectors to make contacts and build relationships to foster a statewide sustainability network.

The first regional meeting was facilitated by the Alliance in Fort Morgan, Colorado on March 17, 2010 and included representatives from Morgan, Logan, Washington, Sedgwick, Phillips and Yuma counties. The Northeastern plains of Colorado are largely agricultural, ranching and industry-based communities. This rural region with its vast agricultural base is ideal for wind farm development and is developing into one of the largest wind energy producing regions in the country.

Thirty individuals representing businesses, government, nonprofit groups and education institutions participated. This two-hour meeting initiated discussions about water, energy, agricultural and recycling issues in Northeastern Colorado, and gave participants a chance to share experiences and ideas for opportunities to enhance sustainability of communities' economic, social and environmental resources. For this meeting, all participants were given 3-4 minutes to introduce themselves and their organizations. Each provided a brief description of a successful sustainability project or initiative with which they were involved.

MEETING CONCLUSIONS

Local Efforts: What is working and what is ripe for development?

The majority of existing and proposed sustainability efforts discussed by participants focused on renewable energy projects, including community wind energy farms, anaerobic digesters, and a proposed biomass processing facility. The planned NECO Wind Project, for example, will produce a wind park crossing Sedgwick, Phillips, and Logan counties and will have a potential output capacity of 650 MW that can power up to 200,000 average-sized American homes. The organic waste produced during agricultural processes lend themselves well to the development of an anaerobic digester at a mixed-use waste-to-energy facility, the feasibility of which is being determined for an area near Fort Morgan. Utilizing agricultural processing wastes to produce renewable energy and organic fertilizer would have the multiple benefits of reducing carbon and pollution impacts, while reducing energy and waste disposal costs.

Materials reuse and recycling were described as desirable goals but were not a priority for most participants due to the cost and lack of public buy-in. However, The Sterling Correctional Facility is a shining example of a well-established recycling and compost program that has operated since 2001. This program has resulted in 910 tons of recycled materials and an estimated \$77,000 in revenue, which could serve as a model for future large-scale and institutional efforts.

While the group discussion focused only briefly on water conservation and supply, post-meeting survey responses revealed that the top regional priority for participants is water. One individual stated simply, “**Water is the basis of sustainability.**” Comments also included concerns on how to keep water in the area and expressed the need to come together to form a coalition for creating a water storage program. There was no discussion on the need for standardized and efficient green building codes and participants unanimously rated this the least important priority in the post-meeting survey.

Infrastructure: What is needed to make these projects more successful?

Participants strongly agreed that collaboration and communication is critical for the success of future projects, but that this region has several barriers to those processes. Many groups are creating projects with the same focus, without reaching out to other groups to access knowledge and resources. One suggestion was that when collaborative successes do occur, “tell that story more” and build on that success to create a more cohesive and collaborative project.

Agriculture is the base in Northeast Colorado and several participants expressed interest in investing more efforts in local food production and distribution, developing energy on farms through agriculture, and paying attention to the farm to cafeteria movement. An argument was made, however, that while small-scale, local, and organic farming is admirable and worth pursuing, we cannot forget that large-scale production, low-cost industrial agriculture is what feeds the world globally.

One important issue discussed by participants was dealing with an aging electrical transmission infrastructure for both traditional and renewable energy projects. While the problem will have to be dealt with at a national level, several local barriers were acknowledged, such as County Commission approval for permits, funding sources, and individual landowner buy-in.

EXAMPLES OF WHAT IS WORKING AND WHAT OPPORTUNITIES ARE RIPE FOR DEVELOPMENT IN NORTHEAST COLORADO

- **Morgan County:** Have two forward-thinking ditch companies that do a good job at managing agricultural water depletions and maintaining an augmentation system. These companies are also supporting economic development in the region by listening and working with the water needs of a business wanting to locate to this area. The county is trying to position itself on the renewable technologies side, particularly biomass, which is a hot topic because of agricultural waste in the area. The City of Fort Morgan has a

comprehensive asphalt and concrete recycling program, which has been used in the majority of the downtown revitalization project.

- **Logan County:** Developing into one of the largest wind energy producing regions in the country, while serving as model for other counties trying to follow the wind industry. Development includes the 400MWh Peetz Table Wind Energy Center (2007) and Colorado Highlands Wind LLC in Fleming that plans to build 69 turbines. By the end of 2009, there will be 645 wind turbines straddling the county's northern border, supplying 700 megawatts, or enough electricity for 200,000 homes. Logan County is also looking to follow Phillips and Morgan County's landfill baling project, which increases the efficiency of baler and recycling efforts.
- **Phillips County:** NECO Wind partnered with Phillips County Commissioners in 2009 to plan a community wind-power project on Colorado's northeastern plains that is one of five projects selected by the Department of Energy to receive \$2.5 million in federal stimulus funds. Phillips County wants to build a community-owned 30-megawatt project with the ultimate goal of building a 650-megawatt wind farm within Sedgwick, Phillips and Logan counties. The wind farm will provide power for local communities. Area landowners and other participants will share the revenue.
- **Sedgwick County:** Completed a geothermal (GT) project in the grade school. The success of this has led to the high school implementing a GT system this spring, and a potential implementation at the courthouse. The County is leased up with wind energy, but looking forward to developing more wind farms, with the major disadvantage being the distance between production and where the power is sold.
- **Morgan County Rural Electric Association (MCREA):** Providing energy efficiency rebates for appliances, water heaters, etc. Offer rate-designed incentives for electricity usage in off-peak periods.
- **Highline Rural Electric Association:** Managed load control on over 1000 irrigation wells last year. Commercial production of a [recovered energy system](#) from the Trailblazer natural gas pipeline began in June 2009. Captured heat from the turbines that pump natural gas is used to make electricity and produces over 27,000 MWh hours of energy annually.
- **Sterling Correctional Center:** Since 2001, the recycling and composting program has resulted in recycling 910 tons (old corrugated cardboard and newspaper, tin cans, scrap metal) bringing in revenue of \$77,000. 2001 figures indicate that 5,716 tons of waste has been diverted from the landfill (composting and recycling) for an annual average waste diversion of 57%. This equates to a savings of \$102,888 in landfill tipping fees and a reduction of 426 trips to the landfill.
- **Northeast Colorado Housing:** In coordination with Northeastern Colorado Association of Local Governments (NECALG) to provide bus transportation to clients across Northeast Colorado for increased access to jobs, health and medical services, social functions and services, recreational and educational facilities.
- **NECALG Weatherization Project:** This program has had a profound effect on the income-qualified people benefitting from it for the Northeast region, providing safe energy conservation repairs to reduce utility consumption.
- **Eastern Workforce Region:** Providing workforce training around renewable energy and energy efficiency industries. Coming up with a design to provide employers with local,

skilled workers so they don't have to import workers as these industries are developed in each region.

- **Morgan Community College:** Covers 11,500 square miles in eastern Colorado, with Centers in Wray, Limon, Burlington and Bennett. Programs in agricultural business management are offered and provide individual farmers or agricultural businesses with 1-on-1 risk management and financial keeping training. The college keeps students in touch with the region's agricultural roots.
- **Colorado State Forest Service:** Three major ongoing projects include encouraging people to plant and take care of trees; working with local fire department to assist people with protecting their property; and exploring methods of using vast wood beetle killed trees for biomass production.
- **Fort Morgan State Bank:** In coordination with MCREA, customers wanting to make energy efficient or renewable energy upgrades such as insulation, windows, and new heating systems can bring the estimate to the bank, which will structure loans to do the work. The return on investment can be as quick as 1 year or up to 7 years.
- **AgriTech Consulting:** Working with EnSave and several Resource Conservation & Development Councils to develop on-farm energy audits in Colorado and are in the process of lining up trainees to take the EnSave Auditing Course. This training will allow individual contact with producers as part of the energy audit and will meet requirements developed by USDA-NRC Service and USDA- Rural Development. The program is scheduled to be fully implemented by early summer 2010.
- **Progressive 15:** Includes coalition members from a 15-county region. The organization works to advocate legislation and policies that affect agriculture, water, healthcare, and economic viability of the region.
- **[25x25 Vision](#):** Committee put together a national conference of Cooperative Extension agents last year to really engage them and bring rural voice to environmental groups across Colorado. Efforts resulted in changing code for steam-recovery system of Highline REA to meet renewable energy requirement standard across the state.
- **Prairie Winds Art Center:** Purchased former hospital in Holyoke and attempting to renovate building as green. This center of arts and culture will attract artists to the community and provide better art education to students.
- **Anaerobic Digester Project:** Currently examining the feasibility of developing a regional anaerobic digester near Fort Morgan and the Fort Morgan Industrial Park to utilize local agricultural/food processing wastes and potentially dairy waste to produce renewable energy and organic fertilizer. The digester would provide a waste management and renewable energy facility that can maintain itself financially, provide a consistent revenue stream, and could provide primary and secondary rural employment. This would be the first mixed-use waste-to-energy facility in Northeastern Colorado, and would reduce the carbon impacts, water pollution impacts, energy costs, and waste disposal costs of agribusiness in Morgan County.
- **Central Biomass Processing Facility and Renewable Energy System** is being planned in or near Akron, Co. This facility will process and blend all regional biomass collected into a high BTU-content mixture from municipal solid waste, crop residue, municipal wastewater sludge, manure, and crops grown specifically for renewable energy production. The mixture of the various types of biomass could then be made into pellets or left as blended for distribution and input to the individual renewable energy facilities

located at or near the five school districts located in Washington county. The renewable energy facilities located near the five schools would be built to first, offset the energy needs of the individual schools, and secondly to also provide the energy needed for a local business cluster development site. The business clusters would contain businesses that would have a high demand for energy and a waste stream which would be a natural input to the overall renewable energy design of the entire system. The intent is to create good local jobs, hopefully retaining some of our youth in the region, while adding infrastructure to the tax base of the County and the local area schools districts.

- **Community Garden at Knowles Field:** Part of a Sustainable Sterling movement that aims at sustaining the many positive aspects of Sterling and improving what the city has to offer. The garden will be built using recycled materials that are temporary in nature, thus allowing for the land to be put to other use in the future and the garden will serve as an educational platform to teach local residents about growing food and related topics.
- **Yuma County Economic Development Corporation:** Recently finalized negotiations and designation of awardees for a GEO/DOLA new Community Energy Grant. Developing a vertically-integrated ethanol operation in which the corn comes from the county and byproduct goes to feed lots. Working with Colorado State University students to research an experimental wind-driven center pivot power system. Each pivot is driven by windpower and will save \$11,000 in electricity for farmers.
- **Dennis Kahn, Colorado State University Extension – Golden Plains:** The city of Parker bought land and the associated water rights in Sterling, CO to satisfy the municipal demands for the city of Parker. Initiating study with the help of Northeastern CSU Extension offices to work with farmers to manage the water resources the city now owns, in a cooperative effort to keep farmers in business and have access to the water they need. This will keep the land in agricultural production and not slide to dry-land production and the associated decrease in land value.

WHAT IS NEEDED TO MAKE THESE PROJECTS MORE SUCCESSFUL?

- **Collaboration and communication is critical.** Amazed at how much money is wasted because no one will collaborate. Everybody doing the same projects, but no one will coordinate efforts. Need to increase communication, get over egos. Part of the problem is the “history” between individuals and agencies, and not moving past it to make things happen.
- When collaborative successes do occur, tell that story more.
- **Transmission Infrastructure.** Dealing with aging infrastructure both for traditional and renewable energy projects - needs to be addressed on a national level. Who is going to fund that national transmission grid? What will be the obstacles, like county approval for permits, landowner consent? Will local utilities raise their base rates in response to mandates?
- **Agriculture.** Need to look at ‘homegrown’ and pay attention to the farm to cafeteria movement, local food development. How can we develop energy on the farm through agriculture? How can food and energy be wed? How do we utilize all of the biowaste produced in agriculture better? How can you grow bioenergy crops? How can farmers consider local food production and the global market at the same time? One participant

works closely with the livestock association, corn growers, large producer farmers, national and local affiliates and these groups get a lot of negative pushback from environmental groups. The problem is, providing a *global* food supply is different than local food producers. *Cannot feed the world at the organic local production level.*

- **Materials Reuse/Recycling.** We need to be thinking much more broadly about recycling. Recycling includes more than the waste that we throw away. It also means finding a use for materials that are just hanging around. Unfortunately, it is not cost effective yet to recycle most materials. One piece of good news is that Colorado Counties Inc (CCI) recently voted to support a tax that provides an incentive to recycle biomass waste (like potato plant waste) into fuel.
- **Water is the basis of sustainability.** The region is losing water to urban communities. How do we keep water in the area? Need to come together as a coalition for creating water storage program, particularly during major storms.

GOVERNOR'S ENERGY OFFICE RESOURCES

GEO currently has \$180 million to be distributed into conservation and energy efficiency efforts and some to renewable energy technologies. Funding is currently available for:

- *Recharge Colorado Campaign:* Nearly three dozen cities have partnered with GEO to provide a variety of rebates for energy upgrades, including insulation, energy-efficient appliances, energy audits and solar power. www.RechargeColorado.com
- *New Energy Economic Development (NEED) Grants:* Provide funding for projects that involve installations of established energy efficiency or renewable energy technology.
- *Transmission Line Infrastructure:* Studying and planning for implementation.
- *Wind for Schools Grant:* Engages rural school teachers and students in wind energy education and educates college students about wind energy applications.
- *Greening Government:* Serving as example of how to be more efficient in buildings, transportation, equipment and operations.
- *Colorado Carbon Fund:* Good opportunity for agriculture to be involved. Ski areas are early champions for buying offsets .
- *Main Street Efficiency Initiative:* Provides to organizations that support the installation of energy efficient and renewable energy equipment in existing small and mid-size commercial facilities in their communities.
- *GEO Community Energy Coordinators:* 18 coordinators around the state have been hired to develop region-wide strategies to bring together resources and ideas to determine what are the regional competitive advantages for economic development, job creation, and energy development.
- Biomass, biofuels, anaerobic digestion and methane capture projects.

For more information, visit www.colorado.gov/energy/resources.



PARTICIPANT ORGANIZATIONS

AgriTech Consulting
City of Fort Morgan
Colorado Senate District 1
Colorado State Forest Service
Colorado State University Extension Service
Eastern Colorado Workforce Region
Fort Morgan State Bank
Governor's Energy Office
Highline Electric Association
Logan County
Morgan Community College
Morgan County
Morgan County Economic Development Corporation
Morgan County Rural Electric Association
Northeast Colorado Housing
Northeast Colorado Resource Conservation & Development Office
Office of Congresswoman Betsy Markey
Office of Senator Michael Bennet
Prairie Winds Art Center
Progressive 15
Rural Solutions
Sedgwick County
Sterling Correctional Facility
Sterling Mini Farms
Washington County
Yuma County Economic Development Corporation