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Rural

COOPERATIVES

USDA / Rural Development

November/December 2007

Wind Power

Windfall for Rural America?

Page 4



Special Wind
Power Section

Co-ops Fueling Green Revolution

Editor's Note: This guest commentary is written by Glenn English, CEO of the National Rural Electric Cooperative Association.

This summer, Sunflower Electric Power Corporation, a generation and transmission cooperative, embarked on a remarkable bio-energy project to create an energy production system that combines an array of subsystems, including an algae reactor, an anaerobic digester, a biodiesel plant, a coal-fired power plant, a dairy farm and an ethanol plant. Located in Hays, Kan., this innovative center points to the central role our nation's agricultural sector can — and should — play in researching, developing and deploying renewable energy.

Rural electric co-ops are uniquely positioned to help develop renewable resources. While states and cities have been passing renewable energy requirements, those requirements can only be met using energy produced in rural areas, such as wind, biomass, manure and large-scale solar power.

Recently, the National Rural Electric Cooperative Association (NRECA) committed to a roadmap for increasing the development of domestic renewable energy options: the 25x25 Action Plan. This plan charts a course to meet an ambitious goal: using renewable energy to meet 25 percent of the nation's total energy needs by the year 2025.

Like Sunflower, cooperatives across the country are already pursuing a wide variety of renewable energy projects. Basin Electric Power Cooperative in Bismarck, N.D., has taken advantage of rich wind resources in that state, adding approximately 136 megawatts (MW) of wind energy to its portfolio over the past several years through joint projects and power purchase agreements. North Dakota is home to 96 MW of that wind power, with plans under development to construct a 100 MW wind farm. In Missouri, Associated Electric Cooperative developed the state's first wind farm.

Clean Renewable Energy Bonds (CREBs), which allow cooperatives to finance renewable energy projects, have opened the floodgates for renewable energy development. Electric cooperatives submitted 85 applications to the Treasury Department for a total of \$554 million in bond authority. According to the Internal Revenue Service, 78 cooperative projects in 22 states received bond allocations.

East Kentucky Power Cooperative was the state's first power plant to bring landfill gas power online and is the only Kentucky utility generating renewable energy. The co-op

owns and operates five landfill gas plants and received a \$20 million CREB for landfill gas development.

The CREB program also opened the door for distribution cooperatives to participate in renewable energy development. Distribution co-ops in California, Minnesota, Illinois and Indiana are using CREBs to develop small-scale wind projects. Distribution co-ops in Arizona, New Mexico and Hawaii are developing solar projects using CREBs.

Exploiting the nation's wealth of renewable resources requires more than money, however. Meeting the voluntary goals of the 25x25 Action Plan requires political will and public support. Increasingly, wind energy projects are being held back by strong local opposition, in addition to inadequate transmission capacity. Rural electric cooperatives, because they are closely tied to their communities, can play a key role in overcoming such obstacles through education and promotion of renewable energy. Delta-Montrose Electric Cooperative in Montrose, Colo., for example, webcasts renewable energy conferences and sponsors expos.

Cooperatives are actively partnering with schools. In Ohio, Logan County Electric Cooperative installed a residential-sized 10 kilowatt (kW) demonstration windmill on the grounds of Indian Lake Schools, and Butler Rural Electric Cooperative, in conjunction with Buckeye Power Inc. and Miami University, erected a 230-square-foot photo-voltaic panel that provides approximately 200 kW hours per month. Both projects are providing real-time information and data to members and the public at the Buckeye Power Web site. Sulphur Springs Valley Electric Co-op in Wilcox, Ariz., will use its CREB to build photo-voltaic shade structures at the 45 public schools and two colleges.

Today, 11 percent of the power distributed by America's electric cooperatives is generated from renewable resources, more than 40 billion kilowatt hours. As co-ops look for more cost-effective renewable resources to provide Americans with reliable, affordable energy, that total will continue to grow.

Developing renewable energy will strengthen America and increase our economic security by reducing our dependence on foreign resources. As we build for the future we will continue to increase our investment in renewable technologies, bringing homegrown, regionally produced energy safely and reliably to co-op members at the lowest possible price. ■

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FEATURES



4 *Harvesting the Wind*

Minnesota farmers structure business to keep more dollars at home

By Dan Campbell

9 *Iowa wind farm supported by USDA renewable energy program*

10 *Wind Power Energizing Rural America*

Increasing share of U.S. wind energy sector held by community and producer groups

By Alan Borst

14 *Predevelopment work nets higher royalties for landowners*

By Dan Campbell

17 *Renewable x 2*

Corn Plus taps wind power to operate ethanol plant

20 *Stepping Up to the Plate*

Basin Electric sees wind power as key part of multi-pronged strategy

By Stephen Thompson

26 *Spreading Seeds of Success*

Alabama Farmers Co-op and its Bonnie Plant Farm strengthen rural South

28 *Small Advantages*

Are small co-ops still viable in Ireland's dairy pastures?

By Robert Briscoe and Michael Ward

DEPARTMENTS

2 COMMENTARY

23 UTILITY CO-OP CONNECTION

25 CO-OP DEVELOPMENT ACTION

34 VALUE-ADDED CORNER

35 NEWSLINE

40 PAGE FROM THE PAST

42 ANNUAL ARTICLE INDEX

On the Cover:

Minwind Energy's turbines are owned and operated by local producers and community members in southern Minnesota. While producer ownership of wind power still represents a fairly small portion of the sector, interest in this business model is growing. USDA photo by Dan Campbell



Minnesota farmers structure wind business to keep more energy dollars close to home

Harvesting the

By Dan Campbell, editor

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Surrounded by fields of corn swaying in an early autumn breeze, Mark Willers makes his way to a wind turbine soaring more than 240 feet into the blue Minnesota sky. After pointing out to a visitor the surprisingly small “footprint” of the turbine — corn grows to within a few yards all around the tower — he unlocks the access door in the base and examines the computer that is both the brain and nerve center of the turbine.

On the outside, the turbine looks deceptively simple: a mammoth, three-bladed fan twirling on the end of a sleek, cream-colored tower. But modern wind mills such as this are works of technological genius — a 21st Century harness for one of the oldest forms of power known to mankind. The result is the generation of wind energy at levels unimagined even a decade or two ago. This two-megawatt turbine, as tall as a 30-story building, can produce 6 million kilowatts of electricity annually, enough to light up 600 homes.

But it is not a simple process. The computer constantly adjusts the tilt of the blades, based on fluctuations in the wind currents.

This turbine is one of 11 that comprise the Minwind Energy wind farm near Luverne, in the southwest corner of Minnesota. The turbines, built between 2002 and 2004, look no different than most of the modern turbines that now produce more than 11,600 megawatts (MW) of electricity in the United States (74,200 MW worldwide) each year.

But this wind farm is unusual in one very critical aspect: it is owned and operated by about 300 area farmers and other community members. Most other wind farms in the United States are owned by private power companies. Willers and his fellow members in Minwind — an LLC that operates on cooperative principles — feel that this absentee ownership pattern represents a lost opportunity for rural America.

Owning the wind

When farmers and other rural landowners sell wind power rights to their land for only land lease payments, “it’s a little like colonialism in reverse,” says Willers, a fourth-generation Minnesota grain farmer. His great grandfather in Germany made his living in the late 1800s exporting German and Russian wheat to the United States at a time when it was still wheat deficient.

The real money to be made from wind power comes not from land rental, but from the generation of electrical power, says Willers, who is also CEO of Minwind.

With southwest Minnesota being such a high-wind area, and the nation hungry to develop renewable energy, there is little doubt that wind power is going to continue to grow here and in other windy regions of the United States — primarily the Upper Midwest, Eastern Slope of the Rocky Mountains and Great Plains states.

“These wind projects are going to get done — either by big corporations or by producer and community groups,” says Tom Arends, a Minwind member and a semi-retired grain and hog farmer. But there is no doubt where his heart is. “With community ownership, it is going to keep more money circulating locally and create more jobs. It’s easy to lease land to a power company, but how many in your community will really benefit from that? Very few.”

A new vision for wind power in rural America is needed. “We must find ways to keep more of these wind-energy dollars within our state and within the Midwest — and we need to collaborate to make it happen,” says Willers.

When rural landowners sell wind power rights for only lease payments, “it’s a little like colonialism in reverse,” says Mark Willers, a fourth-generation Minnesota grain farmer and CEO of Minwind. USDA photos by Dan Campbell



Prairie Wind



New spin on wind

Farmer and community ownership of wind power is a new spin on the rapidly evolving renewable energy scene. One does not need an advanced degree in economics to see why local ownership matters.

For starters, landowners must understand what percent of gross wind power revenue they are getting for leased land. Most wind lease payments are running 0.5 to 1.5 percent of gross value, says Willers. "Farm land is certainly not being rented for one-half percent of the gross." Nor do the iron ore or timber industries lease land for such a minimal fee, he observes.

"Our goal has always been to invest in businesses that support a growing community, and that means we need to have the land

lease revenue, the gross power production revenue and the tax revenue all stay in our local community," Willers says.

"If someone is going to be making money off my land, it should be me — not some power company, and especially not an Australian or Spanish company," adds Arends, who is concerned about growing levels of foreign ownership of U.S. wind rights.

Local governments and schools in Minnesota benefit from wind power via a production tax leveled per kilowatt of power generated. It is copied after a Danish model, so that bigger turbines pay more. For each 100 MW of wind power generated in Minnesota, about \$1 million in tax revenue is paid to local governments and schools, according to Windustry, a nonprofit organization that provides technical support for rural landowners and communities pursuing wind energy projects.

Wind power is certainly not a "get-rich-quick" technology, and farmers thinking they might reap fast "windfall profits" should think again, Arends advises. "A lot of people really hit it big for a few years with ethanol, but this is quite different. The goal with wind is a slow, steady stream of income."

By the same token, since wind operates on long-term power purchase agreements with set prices, the industry should not be subject to the rapid market plunges that the fuel industry experiences.

Launching Minwind

Minwind was formed in 1999, but its roots go back to the 1970s, "When Midwest agriculture became a mature industry," says Willers. "If we didn't export our grain or

livestock products, we didn't have much of a market for it. So we started looking at new ways to add value."

Most of the initial investors in Minwind also invested many years earlier in Luverne's ethanol plant (Agri-Energy LLC) and other value-added businesses, including soybean crushing and biodiesel plants. With the formation in 1999 of

the five-member Minwind board of directors — all of whom shared a deep-seated, value-added business philosophy — the co-op began to pursue a feasibility study.

A letter was sent out to potential local backers, asking them to invest \$500 each for a feasibility study. That's all it took to get 66 farmers and other community members to send in checks. That money was used to hire a consultant and launch the

study. By 2001, the board had decided to move forward with the project, and shares were offered at \$5,000 each to erect four, one-megawatt wind turbines. Total cost was just under \$4 million.

The original 66 members bought all the shares. A limit was established so that one member could not own more than 20 percent of the shares. As with a new-generation co-op, members can sell their shares, but to date no one has sold any.

There was virtually no opposition to the Minwind project. "That is the beauty of a community project. When neighbors all own part of it and will get a return from it, it really makes a difference," says Willers.

Minwind began negotiating a power contract in 2001, and the first four turbines were up and operating in 2002. The co-op was able to take advantage of several Minnesota programs that provide financial incentives to develop wind power.

When it was decided to expand the wind farm in 2004 with an additional seven, two-megawatt turbines, Minwind looked to USDA Rural Development's 9006 Renewable Energy Program for help. Willers wrote the grant applications, which netted the co-op \$178,000 toward the cost of each of those turbines.

Membership was expanded by 240, "but it was still pretty much local, and all in-state," says Willers. Indeed, the company charter requires that investors be Minnesota residents. Minwind raised several million dollars toward the total cost of \$12.5 million, financing the balance locally.

"We never traveled more than two and a half miles to



A modern rural hospital in Luverne, Minn., is just one sign of the strong local economy, which is bolstered by renewable energy and other value-added businesses.

borrow money," Willers says. "Our goal is to support as many local jobs as possible, and that means using local concrete people, local electricians, local banks and others."

Energy leadership development urgently needed

Minwind has been getting an increasing number of calls from other rural communities and producer groups wanting to know more about its business model and where to find the right people to help pursue a wind project. That's both good and bad. It indicates strong interest in community ownership, but also points to a general lack of knowledge and leadership in how to pursue such projects.

The Midwest badly needs more energy-leader development programs — and not just for the wind industry, but for other renewable energy industries as well, including the next phase of ethanol technology, says Willers. "There is a real struggle in the Midwest to develop the kind of leaders who can do this. Communities with strong leaders are doing dramatically better, and the differences will only get bigger."

Willers is a frequent speaker at the state's colleges, where he tells graduate students about the economics of wind power and the skills they will need to run or start renewable energy companies. "They are the ones who will determine the future of how these companies will be owned and operated."

He emphasizes that all those math and the physics classes students are taking will help them run a wind farm. "You need these skills to determine the pitch of the blades, or to find the best location for a turbine. This is real life!" he tells them. "If you are going to go school to study engineering or mathematics or economics, this is what you are there for."

Minwind also works with busloads of area high school students, walking them through the project and trying to help them understand how their communities can get involved in renewable energy and to start them thinking about the studies they will need to pursue to be part of this industry.

Wind power creates good jobs so more young people can stay in their home communities, Willers says. "Turbine service technicians with a few years of experience will probably make more money than any co-op manager. You need both a mechanical engineering background and a computer background, because these turbines are very technologically complex." ■

Turbine placement

In choosing the site for a wind farm, not only is a thorough study of an area's wind resources crucial, but so too is proximity to transmission lines. Since farmers with the turbines earn extra fees if they own the land the turbines are sited on, there were some "internal politics" to be dealt with.

"Some farmers will say, 'My farm is on the highest elevation in my township, and it was real windy last week, so this is where the tower should go.' But it's a little more complicated than that," says Willers. Having a neutral engineering consultant make the decision where to site the wind farm helps avoid any appearance of favoritism.

"I don't have any turbines on my land — not even any close," says Arends. But as a member of Minwind, he says he benefits no matter where the towers are located, and thus he supports placing them wherever they will generate the most consistent energy.

Negotiating a power purchase contract is definitely a job for an attorney who specializes in such matters, they advise. "The utility is naturally going to try to buy power from you as cheaply as it can," Willers says. Minwind negotiated with a couple of possible buyers, ultimately opting to sell power to both Alliant Energy and Xcel Energy.

Transmission, tax credit concerns

Lack of transmission infrastructure is by far the biggest overall limiting factor for wind power development in the United States. "Our wind resources are mostly in the eastern Rockies and northern plains, but most of our people are on the two coasts," Willers says. "If you are going to transport all that electricity to the places it is needed, there needs to be substantial expansion in our transmission system."

The biggest obstacle to promoting more local ownership of wind power is the way the federal production tax credit (PTC) law is written, he says.

The value of these tax credits can be huge. Over a 10-year period, they may even be equal to the lion's share of the initial cost of a turbine, says Arends. But the tax credits must be used as an offset to passive income — the kind of income big power companies have in plenty, but not small businesses like Minwind or its members.

Minwind financed its wind farm without reliance on PTCs, which instead flow back to the individual shareholders. But some of them are unable to use the PTCs.

"Why do we have legislation that prevents individuals from being able to use production tax credits?" asks Arends.

Willers sees the situation in even starker terms: "The production tax credit law is very anti-agriculture. It moves revenue out of the Midwest to the coasts, and even offshore. I have a real problem with a tax system that promotes removal or revenue from a given area (the Midwest) to another region of the country (the coasts)."



(Editor's note: James Newby, assistant administrator of Electric Programs for USDA Rural Development, notes that tax-exempt organizations are not eligible for production tax credits, which is why Clean Renewable Energy Bonds (CREBS) were created. He notes that CREBS provide the same level of financial incentives to cooperatives as does the PTC.)

Also hurting the U.S. wind industry is the loss of U.S. core industrial manufacturing capacity. Most wind turbine manufacturing companies are European, and with the Euro at record high exchange levels vs. the dollar, it has caused turbine prices to soar. There is also a backlog of orders, putting even more upward pressure on prices.

In just the past year, the average cost for a two-megawatt turbine has climbed from about \$2.1 million to \$2.5 million. These cost escalations have a huge impact on the viability of wind power.

"All of our parts are also going to be costing more," says Willers. "And patent laws mean we have to buy parts over there." Some growth in blade and tower manufacturing is occurring in the United States, "but it is growing slowly," says Willers.

Congress has been extending the energy law in only one- or two-year increments, while Europeans are working on 10-year renewable energy programs, Willers notes. "The United

States needs a long-term energy policy that would encourage factories to be built in this country."

Expansion coming

Minwind has four more expansion phases on the drawing board right now, which it hopes to complete over the next four years. Willers declined to divulge the details, but stressed that "we will almost certainly be expanding."

The co-op currently operates with two full-time employees (Willers and a bookkeeper) and two part-time staff members. It uses contractors for turbine service and maintenance, although it will likely hire its own maintenance employees when growth and the economy of scale justifies it.

Should more producer and community groups consider building and operating wind farms?

In some case, yes, says Willers. "But it depends on the group. If you have an aggressive, well thought-out business plan and people on board who are experienced in starting companies, you may do well. But if you are thinking that you are going to own some wind turbines and then just sit back and collect the checks — and you don't want to understand all of the technology — then you probably should not pursue it."

Willers says farmer co-ops could develop wind ventures for their members, but because most co-ops cannot use

continued on page 39

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Iowa wind farms supported by USDA Renewable Energy Program

SDA Rural Development's Section 9006 Renewable Energy Systems loan and grant program is helping to finance wind power projects throughout the nation, including two new wind farms which recently began operating in Iowa.

The Crosswind Energy wind farm near Ruthven, Iowa, is composed of 10 two-megawatt (MW) turbines, each of which is owned by an LLC that represents partnerships between 10 Iowa producers and California-based Edison Mission Energy. Edison's involvement will be phased out after 10 years of operating the turbines, which are estimated to have a 25-year lifespan.

The 21 MW of power generated by the wind farm is being sold to Cornbelt Power Cooperative in Humboldt, Iowa.

The project was made possible, in part, by \$250,000 in Section 9006 guaranteed loan funds, \$302,125 in USDA Value-Added Producer Grant technical assistance funds, and \$2.3 million in Section 9006 grants. During the past four years, USDA Rural Development has awarded \$6.6 million in guaranteed loans and grants to 37 large wind energy projects in Iowa.

The Hardin Hilltop Wind Farm, northwest of Jefferson, Iowa, in Greene County, is another example of how the 9006 program is being used to promote wind power. USDA Rural Development provided \$1.7 million in grants to the producers and individuals who developed this seven-turbine wind farm. Edison Mission Energy has also invested in this wind project.

Interstate Power and Light Co. (IPL), a subsidiary of Alliant Energy

Corporation, will purchase the 16 MW of renewable energy generated by the Hardin Hilltop project, which began commercial operations in May.

Each of the investors owns a single wind turbine, which can generate more than two MW. IPL is eligible to receive the Iowa small renewable tax credit.

Iowa college trains wind technicians

Maintenance and monitoring work at both wind farms will be done by graduates of the wind energy program



Guests check out the apropos wallpaper in a new classroom at Iowa Lakes Community College, which now has 66 students enrolled in its two-year wind power program.

at Iowa Lakes Community College. The two-year, college-level program is believed to be the first of its kind in the nation.

The college recently held a ribbon cutting to open a \$1.7 million addition to its Sustainable Energy Education Center in Estherville, which houses the Wind Energy and Turbine Technology program. The program opened with 15 students three years ago but had grown to 66 wind energy students by this fall.

"This one-of-a-kind program is giving students the skills and knowledge necessary to not only operate and maintain wind turbines throughout the

state, but to keep Iowa on the forefront of the renewable energy frontier," Iowa Governor Chet Culver said in a letter read at the event in October.

PPM Energy provided a gift of \$100,000 to support the college's wind program. "With PPM's aggressive growth plans — and each new wind farm needing skilled, safety-conscious workers — strong training programs are essential to meeting our future staffing needs," said Kevin Devlin, vice president of PPM Energy.

How 9006 program works

"The Section 9006 program was created in the 2002 Farm Bill for financing both renewable energy and energy efficiency projects," Mark Reisinger, USDA Rural Development state director for Iowa, said while speaking at the ribbon-cutting ceremony for the Crosswinds project last summer. He explained that a grant can be made for up to 25 percent of total eligible costs for a project, with a maximum of \$500,000 for a renewable energy project and a maximum of \$250,000 for an energy efficiency project.

A guaranteed loan under the 9006 program can be made for up to 50 percent of total eligible costs up to a maximum of \$10 million. A combination grant and guaranteed loan can be made for up to 50 percent of total eligible costs.

"This program helps rural businesses or agricultural producers develop renewable energy or make energy-saving improvements to their facilities or farms," says Reisinger. Information, applications, forms, and other tools regarding the energy program can be found at: www.rurdev.usda.gov. ■

Wind Power Energizing

Increasing share of U.S. wind energy sector held by community and producer groups



Alan Borst, Agricultural Economist
USDA Rural Development



Wind energy is a bright spot on the rural economic development horizon. Wind power projects across rural America contribute to local and regional economic growth and development. The wind energy industry creates new jobs and new sources of revenue for farmers and ranchers, and it increases the local tax base of rural communities.

Wind turbines generate homegrown energy that helps secure America's

energy future during uncertain times while reducing pollution and conserving water resources. Wind energy is the fastest growing energy source in the world, and numerous rural communities are reaping the benefits.

Why wind power?

Among the major benefits our nation derives from wind energy are:

- Wind power is a clean energy source. Its fuel is the wind and it produces no pollution. Wind power is a renewable energy source created every day by the heating and cooling of the earth.
- The price of wind power is not affected by fuel price increases or

supply disruptions. It improves both America's trade balance and energy security by reducing our dependence on fossil fuel imports.

- Wind power creates jobs — more jobs per watt than all other energy sources, including oil and coal. Wind turbines can be produced domestically (although most are not, at this time).
- Due to technological advances, wind power can cost as little as four to six cents per kilowatt hour, making it competitive with conventional energy sources.
- Wind power can promote rural development by providing steady, ongoing income for farmers and other

Rural America



landowners whose other income is often cyclical, subject to the sharp ups and downs of farm commodity markets. Land used for wind turbines can also be used for other purposes, such as grazing and farmland.

- There are enough reliably windy areas in the United States to produce three times as much electricity as the nation uses today.

Wind industry trends in '07

There are several important trends in the U.S. wind energy sector that will shape its near term future, including:

High growth — U.S. wind-power

capacity grew by 26 percent in 2006, and similar growth is expected in 2007 and beyond;

Turbine supply shortage — Some wind project developers have been waiting up to two years or longer for wind turbine orders;

Bigger wind turbines — Larger and more costly, but also more efficient, wind turbines have become increasingly popular and have driven down the cost of wind-generated electricity;

Wind project developer consolidation — Globalization and the maturing of the domestic industry have resulted in increasing concentration of wind-power ownership;

Wind power can cost as little as 4 to 6 cents per kilowatt hour, making it competitive with conventional energy sources. USDA photos by Dan Campbell

Policy incentives continue to drive the industry — The Federal Production Tax Credit, Clean Renewable Energy Bond program, Renewable Energy Production Incentive program and USDA Rural Development's Renewable Energy and Energy Efficiency program (also called the "9006 program") have each helped to spur investments in wind projects.

The trend of most immediate importance to smaller community wind

projects is the turbine shortage, which has been pushing up development costs. A recent study by the U.S. Department of Energy found that average turbine costs rose 17 percent in 2006, and they are projected to rise another 14 percent this year. This has forced wind project developers to work out deals years before beginning construction.

Larger developers have used their size and buying power to aggressively secure large numbers of turbines. Smaller, community wind developers, however, have had to delay projects when they found that turbine suppliers were either out of stock or not interested in filling comparatively small orders. There are positive signs, however, that more manufacturers are entering the industry, and that existing suppliers are expanding their production to better meet increasing demand.

Windustry is a Minneapolis-based nonprofit organization working to increase wind energy opportunities for rural landowners and communities by providing technical support and creating tools for analysis. Marin Byrne, a Windustry associate, outlined several strategies that community wind developers have been using to secure turbines in the current tight market. They have worked out "piggyback" deals with large wind developers under which a few turbines are set aside for smaller wind projects. Small wind projects may also aggregate their turbine orders into a single, larger-volume order.

Developers of smaller projects have purchased refurbished wind turbines that have been recycled from other projects. Much like buying a used car, however, caution is required in the purchase of used turbines. Turbine manufacturers who are newer to the U.S. market may also be more willing to negotiate with community wind developers. There are also several investment firms that have secured supplies of turbines and may be willing to supply turbines in exchange for a significant stake in the project, although these deals should be weighed carefully.

Externally-owned and community-owned wind energy

According to Windustry, "the key feature of community wind power is that local community members own and have a significant financial stake in the project beyond just land lease payments and tax revenue." Community wind has a small but growing share of the U.S. wind energy sector.

- Externally-owned wind: Traditional wind ownership structures generally include large-scale wind projects, often 50 megawatts (MW) in capacity or larger, that are developed, installed and operated by large corporate owners with headquarters in distant locations.
- Community wind: locally-owned and operated projects that



Wind turbines help secure America's energy future while reducing pollution and conserving water resources.

can be any scale, but are typically smaller.

Of 11,603 MW of wind energy installed in the United States, 11,182 MW has traditional ownership while 421 MW is community owned. Community-owned wind power has grown from almost nothing in 2000 to a 3.6 percent share of national wind power today, and it is growing at an accelerating rate.

Benefits of community ownership

Lisa Daniels of Windustry says community-owned wind power has all the benefits of corporate wind, plus:

- Greater stimulation of local economies;
- Increased local energy independence;
- Delayed need for new transmission lines;
- Increased competition in energy markets;
- Greater acceptance of wind power.

Community wind ownership is diverse, and includes cooperatives and LLCs, with the core of the membership often being farmers and ranchers. A look at the structure of U.S. community-owned wind power in 2004 shows the following, according to the Environment Law & Policy Center:

• Private	67 percent
• Municipal utilities	21 percent
• Rural electric cooperatives	7 percent
• Schools	5 percent
• Tribal	.2 percent

Co-op model traits and wind power

Traditional types of cooperatives have great potential to develop wind energy resources in rural America. These include:

Marketing cooperatives — A cooperative that markets products for its farmer members. Rural landowners with good wind resources could cooperatively market the electricity generated from their turbines.

Supply cooperatives — A cooperative that provides supplies or inputs for its farmer members. Rural landowners with good wind resources could cooperatively purchase turbines and services and supplies to maintain them.

Bargaining cooperatives — A cooperative that bargains with buyers for price and other terms of trade on behalf of its members as its sole or principal function. Rural landowners with good wind resources could cooperatively bargain with competing wind project developers for the best leasing and revenue deals.

Consumer cooperatives — A purchasing organization formed for the benefit of the consumer. Rural resident members of



an electric utility wanting to purchase wind-generated electricity could direct their co-op to operate a turbine.

Why cooperative wind?

Reasons for promoting cooperative ownership of wind power include:

- Few individual rural residents can afford the more efficient and cost-effective larger turbines, while cooperatives provide a familiar structure for local participation and joint investment.
- Market power — Co-ops can help ensure that their landowner-producer or utility-consumer members receive more equitable treatment in the marketplace through centralizing and coordinating deals.
- Competitive yardstick — A co-op offers a way for members to compare the prices and terms of competing wind project developers or rural utilities with which members could potentially deal.
- Patient capital — Cooperatives are owned by their local members rather than by outside investors, and thus may develop or maintain a wind-energy project that would not meet the expectations of outside investors.
- Local benefits maximized — Several studies confirm that community wind provides greater local economic returns and employment. Co-ops return surplus revenues to members and the local community.
- Local leadership — Co-ops produce informed and committed community leaders who are better able to contribute to local development efforts.

Utility co-op wind ownership

Some electric cooperatives own wind projects, ranging in size from one turbine up to large wind farms. These wind-project owners include Basin Electric Power Cooperative in the Dakotas (see page 20), Minnkota Power Cooperative Inc. in North Dakota, Kotzebue Electric Association in Alaska, Alaska Village Electric Cooperative, Great River Energy in Minnesota and Illinois Rural Electric Cooperative.

Many rural electric co-ops also support wind power by making long-term power purchase agreements with large wind project developers.

In recognition of these cooperatives' contributions to the wind industry, a "Wind Cooperative of the Year" award has been established by U.S. Department of Energy's Wind Powering America effort, the National Rural Electric Cooperative Association and the Cooperative Research Network. The 2006 recipient was Associated Electric Cooperative Inc. in Missouri, while the Alaska Village Electric Cooperative was also recognized. Previous awardees have included the Illinois Rural Electric Cooperative,

Western Farmers Electric Cooperative in Oklahoma, Holy Cross Energy in Colorado, Basin Electric Power Cooperative and Great River Energy.

Rural electrics are likely to be more active in wind energy because:

- Wind energy is becoming more economically competitive;
- More rural electric co-op members are beginning to demand renewable energy;
- Federal incentive programs applicable to community wind, such as USDA Rural Development's Section 9006 and Value-Added Producer Grant programs, are being used by utility co-ops to reduce their wind development costs;
- Some rural electric cooperatives are now covered by state Renewable Portfolio Standards, which mandate the share of renewable energy that co-ops must purchase or generate for their members.

Rural electric co-ops will be more involved in supplying wind energy for their members, both as purchasers from large corporate wind farms and as developers of community wind projects.

Landowner wind cooperatives

There are no major examples of U.S. wind energy projects owned by landowners with strong wind resources that are formally incorporated as cooperatives. Several wind energy projects have producers as their majority owner-members, but they are organized as limited liability companies (LLC), although they usually operate according to cooperative principles. All were located in Minnesota until June 2007, when two farmer group wind projects were commissioned in Iowa.

From Trimont Area Wind Farm's (see page 14) active role in a wind project pre-development process, to Minwind Energy's (see page 4) outright development and ownership of wind projects, several farmer groups in Minnesota have led the way in cooperative wind. Minnesota's energy policy environment uniquely fosters cooperative wind through power purchase requirements, standard agreements and power production incentives.

Nebraska and Iowa are considering versions of Minnesota's Community-Based Energy Development program — the pillar of its supportive community wind environment. Iowa and Illinois also have incentive programs for community wind that can be used by rural groups. Landowner bargaining groups for negotiating with wind developers have been organized at several sites across rural America. With examples of farmer group wind business models that work and increasingly supportive federal and state policy environments, landowner group wind projects are likely to continue to be developed. ■

Predevelopment work nets higher royalties for landowners

By Dan Campbell, Editor

If any place on earth was made to order for a wind farm, Trimont, Minn., would seem to be it. Not only do prairie winds blow here most of the year, but a major power transmission line runs through the area and there is a nearby electric peaking plant (which kicks into service during periods of peak energy demand).

So when Great River Energy — an electricity generation and transmission co-op — put out a proposal in 2003 soliciting bids from anyone wanting to supply it with 100 megawatts of renewable energy, it got Neal Von Ohlen and some other area farmers thinking very seriously about developing a community-owned wind farm.

“We drew a big square (encompassing about 16.5 square miles) around the peaking plant and focused on getting those landowners to join in an LLC,” says Von Ohlen, who farms about 1,700 acres of corn and soybeans with his father and brother.

The farmers then hired a consultant to pursue a project that they hoped would result in the first large-scale, farmer-owned wind farm in Minnesota, says Von Ohlen, standing in the driveway of his farm, nearly in the

shadow of a turbine that seems to sprout from his grain bins.

They were told the logistics looked good, so 50 area landowners formed Trimont Area Wind Farm LLC (TAWF). At that point, they had only about three weeks to pull their proposal together and get it to Great River Energy. They managed to meet the April 30 deadline, but TAWF was far from alone in seeking the contract. Of 65 bids submitted, 62 were from would-be wind energy developers.

Trimont bid wins contract

After two months of reviewing the proposals, Great River Energy — which supplies power to 28 local rural electric utilities with 600,000 members — put the Trimont bid on its short list of finalists. Two months after that, Trimont Wind was selected as the winner.

Of the 50 landowners who joined the LLC, 47 are Minnesota residents, and



“By delivering signed leases and a power purchase agreement, we were able to get a much better-than-average deal,” says Neal Von Ohlen. Opposite page: Minnesota towns such as Jackson are benefiting from a stronger rural economy created by wind power and other renewable energy development. USDA photos by Dan Campbell

half are active farmers. More than \$500,000 was raised from the members to pay the consultant, legal fees and related costs.

“At that point, we still thought we would own the project,” says Von





A wind turbine seems to sprout from grain storage bins on Neal Van Ohlen's farm.

Ohlen, who is manager of TAWF. What eventually killed that dream was the determination that their LLC-cooperative would not be able to use the production tax credits, which can offset a major share of the cost for wind turbines (see related story, page 7).

"That ruled out our being the owners."

Some other ownership options were studied, such as a contract under which ownership would "flip" to the co-op after 12 years. "But we were a little nervous about suddenly becoming the owner of 13-year-old wind turbines, not knowing what kind of shape they would be in at that point. So we instead decided to team up with a major wind power developer."

Predevelopment work pays off

By doing the predevelopment work, including the always tough job of aggregating the needed land in the right location, and by having the power contract in hand to supply Great River Energy, TAWF was in a much stronger position than landowners typically are to negotiate a strong deal on behalf of its members.

The co-op ultimately opted to enter a contract with PPM Energy, a unit of ScottishPower, based in Scotland, which has more than 1,700 megawatts of wind energy in operation or under construction around the globe. PPM Energy built, owns and operates the turbines.

TAWF not only negotiated land lease payments, but got its members a percent of the gross power revenue generated by the wind farm. As the efficiency of the operation improves, the percent of revenue going to the LLC will also rise, says Von Ohlen. Members will earn a minimum yearly return on their investment of 50 percent.

"By delivering signed leases and a power purchase agreement, we were able to get a much better than average deal," he says. "The industry standard is for a lease payment of \$2,000 to \$3,000 per tower, but we were able to get \$4,000."

The wind farm includes 67, 1.5-megawatt turbines, manufactured by General Electric. Each turbine stands 265 feet high from base to hub. About 75 percent of the towers were built in Fargo, N.D., as were most of the blades, Von Ohlen says.

Only minor disruptions to farming

Of the wind farm's 8,500-acre "footprint," 8,000 acres are in the LLC. Construction started in May 2005 and was completed within six months. Von Ohlen says only minor disruptions to farming operations were caused by the construction.

The turbines themselves take up very little land, with the biggest space demand being for the 16-foot-wide

access roads. "Even if the road is a half mile long, that still equals only about an acre," Von Ohlen notes. And the access roads can come in handy for farming operations.

The LLC still holds regular board meetings, with its main function being to administer and distribute the payments from the wind farm to its members.

Von Ohlen says a study showed that for this project, the ultimate net return to members will be about the same as had they owned the turbines outright. "The biggest difference is that we will get more of the return in the early years of the project, whereas with direct ownership, more of the returns would have come in the later years," he explains.

PPM Energy has an option in 15 years to pay a lump sum to TAWF and would then own all the power revenue. In that case, the LLC would dissolve, and from that point on the power company would simply work directly with landowners to pay land lease fees.

The wind farm is expected to generate more than \$1 million annually for the local economy through a combination of taxes paid, easement payments and power payments to the LLC.

Great River Energy is putting out a new proposal for another wind farm in the area, and Van Ohlen says a new LLC is being formed to again do the predevelopment work and negotiate a contract on behalf of its members. His family holds land in the new area as well, "so we'll be involved in both. But they will be separate entities, each with their own boards."

How is life with so many wind turbines suddenly sprouting up from their corn and soybean fields? "It's definitely something to get used to when they first go up. But now they are just part of the scenery — you hardly even notice them." ■

Renewable x 2

Corn Plus taps wind power to operate ethanol plant

By Dan Campbell, Editor

For dramatic evidence of the rapidly developing renewable energy economy in rural America, focus your attention on the Corn Plus Ethanol plant, near Winnebago, Minn. Not only is this producer-owned cooperative squeezing 44 million gallons of ethanol out of its members' corn each year, but two giant, 2.1 megawatt wind turbines were also recently erected, which will supply about 40 percent of the electricity needed to operate the plant. That's enough power to light up 1,000 homes each year. Which makes this plant a "renewable times two" operation.

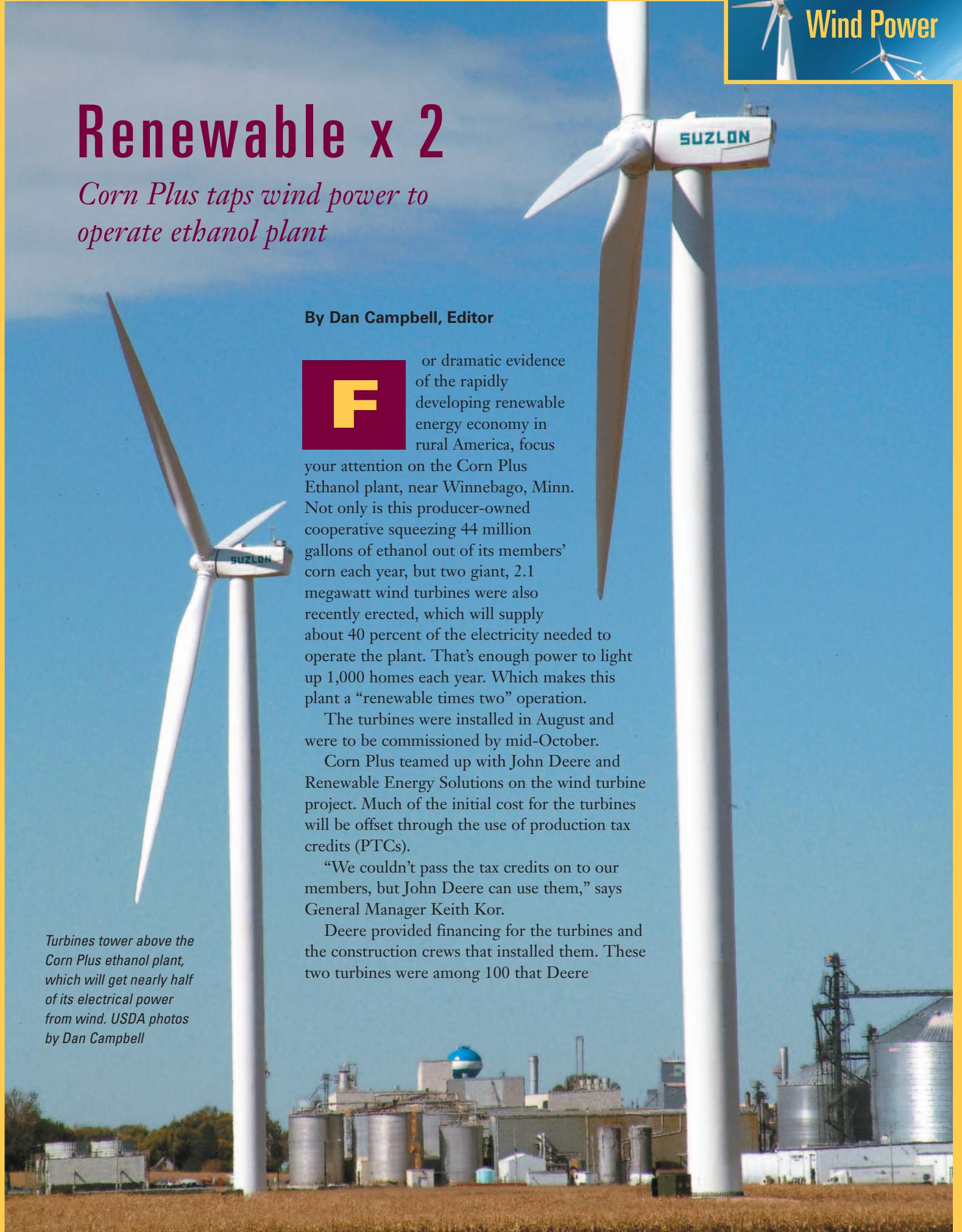
The turbines were installed in August and were to be commissioned by mid-October.

Corn Plus teamed up with John Deere and Renewable Energy Solutions on the wind turbine project. Much of the initial cost for the turbines will be offset through the use of production tax credits (PTCs).

"We couldn't pass the tax credits on to our members, but John Deere can use them," says General Manager Keith Kor.

Deere provided financing for the turbines and the construction crews that installed them. These two turbines were among 100 that Deere

Turbines tower above the Corn Plus ethanol plant, which will get nearly half of its electrical power from wind. USDA photos by Dan Campbell



purchased from Suzlon Energy Ltd. After 10 years, Corn Plus will have the option of buying the turbines back from Deere. Corn Plus will buy the wind energy from John Deere.

Dan Moore, director of Renewable Energy Solutions, was quoted in the *Mankato Free Press* as saying that he thinks some other ethanol plants will follow the example of Corn Plus' use of wind power. "It just makes so much sense — a renewable making a renewable."

The co-op's wind electricity price will be locked in for 10 years. "We're getting a good price," Kor says.

The co-op's goal is to eventually run the ethanol plant without any need for outside energy.

Slashing natural gas needs

Helping it reach this goal is a new, fluidized-bed boiler — the only one of its kind — which creates steam to run the plant. The boiler burns corn syrup produced as a byproduct during the ethanol-making process.

The fluidized-bed boiler has already reduced natural gas needs by 50 to 60 percent. This will save the plant about \$6 million to \$7 million per year, Kor says.

Corn Plus has 750 members, most of whom are farmers. There are two sister-business entities: Corn Plus Cooperative and Corn Plus LLLP, a limited liability limited partnership that operates the ethanol plant.

The ethanol plant originally opened in 1994 with a 15 million gallon capacity, but by 2001 had been expanded to 44 million gallons.

"About a year and a half ago, everyone was advising ethanol plant operators to expand," Kor says. "But we evaluated the situation and decided our



Keith Kor, right, began working in the ethanol industry in 1982. Left, Corn Plus is producing two pelletized products: a fertilizer and a livestock feed. Both are derived from ethanol byproducts.

best approach was to become a low-cost producer." Hence the decision to take firm steps toward reducing the energy needs of the operation.

Reducing its gas needs may also yield other benefits for Corn Plus. In August, it joined the Chicago Climate Exchange, a greenhouse gas emissions registry and trading program that seeks to reduce greenhouse gas emissions. Corn Plus will receive carbon credits based on its reduced gas consumption. At the current rate, it will receive about 42,000 tons of credits, with a value of about \$240,000.

Kor is also excited about the

possibilities of two revolutionary new pelletized products Corn Plus is producing: a fertilizer and a livestock feed. Both are derived from ethanol byproducts.

The fluidized-bed boiler produces about 25 tons of ash a day, which is being turned into about 9,000 tons of fertilizer pellets per year. These pellets are rich in phosphorous and potassium, as well as other micronutrients, Kor says.

The co-op also has a patent pending for a process it developed to pelletize dried distillers grains (DDG). One of the big knocks against using DDG for livestock feed is that it tends to stick to the sides of bins and trucks (see "Measuring the gains of distillers grains," page 18 in the Sept.-Oct 2006 issue of *Rural Cooperatives*). By turning DDG into pellets, Kor says it will

greatly ease use in farm feeding operations.

Deep roots in industry

Kor began working in the ethanol industry in 1982 at a small plant in Houston, Minn., and later worked at plants in Iowa and Jamaica. He's been at Corn Plus since 1995.

"I never thought the industry would grow so much so fast," he says. "There were so many naysayers all these years. I can recall seeing filling stations with signs that bragged 'We don't sell ethanol.' Now they do the opposite."

Having been in the business since its infancy, Kor has seen ethanol go though

a number of up and down cycles, and doesn't seem overly worried by the current slump in prices. When interviewed in late September, ethanol prices had fallen about 25 percent from the high levels of just a year or so before.

"High ethanol prices led to a rash of plant construction, and now in some areas there is a glut of ethanol. But plans for many plants are being shelved now, while others can no longer get financing," Kor says, adding that he is confident that the market will stabilize and correct.

"What now concerns me the most is that so many of these new plants are

not farmer owned," says Kor. "Outside investors poured their money in and turned ethanol into a gold rush. Now we'll have to see how much consolidation occurs and how that impacts the ownership structure of the industry."

As for cellulosic ethanol, Kor says he has few doubts that it is coming. "And I think that's great. I think you will see cellulosic ethanol plants right next door to corn ethanol plants, and they will be using corn stover and prairie grasses. We need both kinds of plants." ■



WIREC Conference set for March 4-6 in D.C.

Renewable energy is "the greatest opportunity for wealth creation in rural areas in our lifetime." That's what Under Secretary of Agriculture for Rural Development Thomas Dorr told a gathering of stakeholders during the formal announcement of the 2008 Washington International Renewable Energy Conference (WIREC) on Oct. 2 at U.S. State Department headquarters in Washington, D.C.

Billed as "an international platform for government, private sector and non-governmental leaders to jointly address the goal of advancing renewable energy," WIREC 2008 will be held March 4-6 at the Washington Convention Center.

Dorr joined State Department Under Secretary for Democracy and Global Affairs Paula Dobriansky in urging federal and local government officials and private sector leaders to attend the event.

Renewable energy "offers an extraordinary opportunity for agricultural producers," Dorr told the gathering. "There are opportunities at every point in the value chain."

Dorr said WIREC is "an opportunity to share our own experiences, and ultimately to learn from the best practices in other countries as well. It is important in this discussion to remember that renewable energy is, in large part, rural ener-

gy: ethanol, cellulosic ethanol, biodiesel and biomass technology, all of which rely primarily on farm and forest resources. Wind, because of its siting requirements, is also largely a rural resource."

Some solar and geothermal technologies may also be suitable for deployment in urban as well as rural areas, Dorr noted. But these energy sources are still more likely to be sited in rural areas, especially for industrial-scale projects.

The conference should provide invaluable learning opportunities and chances to make government and industry contacts for producer and utility co-ops and LLCs that are involved in, or are considering, renewable energy projects.

Dorr emphasized his belief that the strong growth in U.S. renewable energy resources in the past few years shows that private enterprise is up to the challenge of meeting future energy needs. "If there's one thing we know," he declared, "it's that markets work."

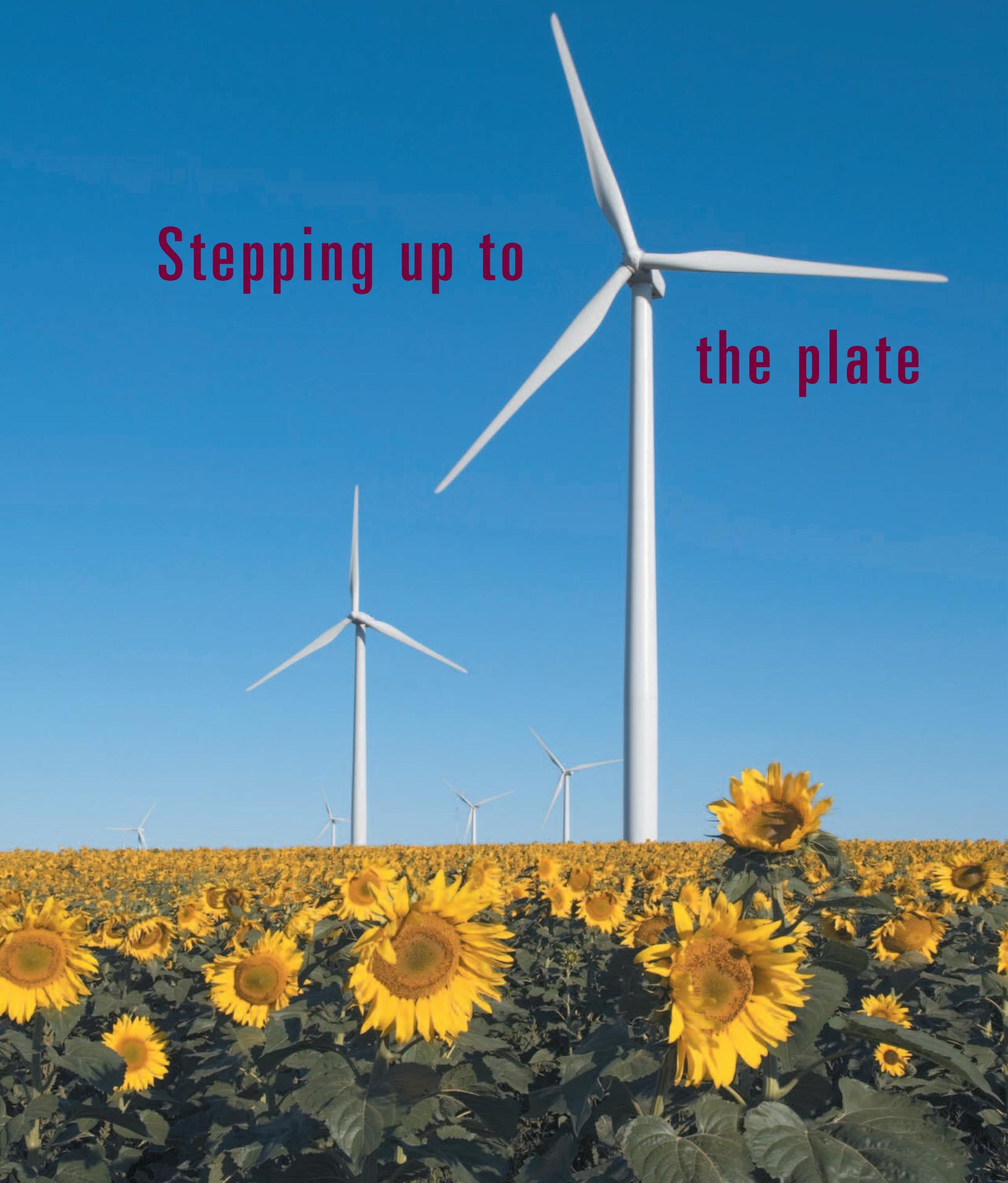
For registration and other information on the 2008 WIREC conference, please visit: www.wirec2008.gov. ■



"We are interested in exploring investment, as well as business models, that encourage participation by farmers and other rural investors in emerging renewable energy industries," said Thomas Dorr, under secretary for USDA Rural Development. With him is Paula Dobriansky of the U.S. State Department. USDA photo by Bob Nichols

Basin Electric sees wind power as key part of

**Stepping up to
the plate**



multi-pronged strategy to reduce greenhouse gases



**By Stephen Thompson,
Assistant Editor**

For Basin Electric Power Cooperative, wind power is just one of many technologies being explored to reduce the co-op's carbon footprint. Basin Electric, a generation and transmission utility co-op based in Bismarck, N.D., is pursuing an aggressive effort on many fronts to meet future demands for electric power while reducing emissions of CO₂.

With the U.S. government getting serious about reducing carbon emissions, the cooperative has decided to try to get out ahead of the curve. "We recognize that carbon is an issue, and that we need to move forward on it," says Floyd Robb, vice president for communications and marketing support. At Basin's 2005 annual meeting, members passed a resolution calling for a full 10 percent of their power demands to be met by renewable, or otherwise "green," sources by 2010.

A study on the issue by the Electric Power Research Institute (EPRI) offers no "silver bullets," says Robb. "The only way to meet expected requirements is to use a whole



The Great Plains Synfuel plant, run by a Basin Electric subsidiary, converts dirty, low-quality lignite coal into clean-burning natural gas. The carbon dioxide generated by the conversion is recovered and injected into Canadian oil fields, forcing out petroleum that would otherwise be inaccessible.

Basin Electric purchases the entire power output of this wind farm in Wilton, N.D., which is operated by FPL Energy LLC. New turbines to be built in nearby Minot will be owned by the co-op. Photos courtesy Basin Electric Cooperative

range of methods." The cooperative has stepped up to the plate, participating in projects that include carbon sequestration, waste-heat recovery and coal gasification, as well as wind generation. "We believe we're on the cutting edge," he says.

Basin Electric currently has a total wind generating capacity of 136 megawatts, but recently launched an effort to add up to another 300 megawatts-worth of wind power.

Storing wind-generated power

The co-op is making progress on an even more futuristic goal: a way to store and use wind power generated during periods of low demand.

Basin's wind power is currently generated by a mix of turbines owned by the co-op and other turbines owned by independent wind developers. The new turbines will be wholly owned by Basin

Electric, with the project scheduled for construction in three stages.

The first 99 megawatts will be generated by turbines going up near Minot, N.D. Sites for the second stage are still being explored, while the third stage is still in the initial planning phase. Utility-scale wind turbines currently available each have a capacity of 1.5 megawatts; so producing 99 megawatts requires a wind farm of at least 66 of the immense structures.

Projected cost of each of the first two stages is between \$200 and \$210 million, to be financed through loans guaranteed by USDA Rural Development.



Heat-recovery units on Basin's Northern Border natural gas pipeline recover waste heat generated by gas turbine-driven pumps that move gas along the pipeline. The heat is then used to generate electrical power.

The problem with wind generation, of course, is that the wind doesn't always blow when you need power, and it often blows when you don't need it. There is currently no feasible way to store electricity generated during low-demand periods, but Basin Electric has invested \$2 million to explore a practical alternative, as part of the wind-to-hydrogen consortium of cooperatives and other institutions.

At a site owned by North Dakota State University near Minot, N.D., excess power from nearby Basin Electric wind turbines is being used to generate hydrogen gas. The power is run at low voltage through an electrolyzer, which uses electric current to break water molecules apart into hydrogen and oxygen. The hydrogen is stored under pressure and is used to operate vehicles configured to burn the gas in their engines.

The advantage of hydrogen as a fuel is that it produces only water when burned, offering a completely non-polluting way to power vehicles. At the moment, it's one of the few ways to store non-peak energy.

The electrolyzer is hooked up to the power grid, says Robb, but power use is controlled so that only the amount generated by the wind is used to produce gas. At the moment, the co-op fuels three "flex-fuel" pickup trucks with hydrogen. Gas from the project is also used to run a tractor owned by the university in Fargo.

"You can put your nose right next to the exhaust pipe and smell nothing," says Robb.

Capturing unused heat

Another way to reduce carbon emissions is to capture unused heat and use it to generate power. That's the goal of another Basin Electric demonstration project on the Northern Border Pipeline, which transports natural gas from Canada through Montana and the Dakotas to the Chicago area.

Gas pipelines require compressor stations about every 80 miles, powered by gas turbines. The turbines generate a great deal of waste heat, which is usually exhausted into the atmosphere.

The project uses a thermal oil to absorb exhaust heat, which is routed to a heat exchanger where it boils liquid pentane. The heated pentane gas is used to drive a turbine-powered generator, which feeds the electricity to nearby power lines. The spent pentane gas is condensed and fed back into the heat exchanger in a closed loop.

The program is run by Ormat Technologies under agreement with Basin Electric, which purchases the power. It currently has energy-recovery units on four pumping stations, each one of which recovers about 5 megawatts of

energy — a not-inconsiderable amount. "It's the closest thing to free energy you can get," says Robb. The only drawback is that to be economically feasible, the station has to be within a reasonable distance of power-transmission lines. Four more units are planned.

Most of the cooperative's base-load generating capacity is fired by coal — a fuel that faces increasing opposition from environmentalists, as well from as citizens leery of the impact of coal burning on local air quality.

Coal-fired generation plants usually use bituminous coal as fuel. Low-quality lignite, or "brown," coal is abundant and inexpensive in North Dakota. But it has several drawbacks: its combustion produces even more CO₂ and pollutants than bituminous coal, and due to its low energy content, it's not economical to transport.

The co-op uses innovative technology to develop lignite's potential while minimizing its environmental impact. At the Great Plains Synfuel plant in Beulah, N.D., operated by Basin Electric subsidiary Dakota Gasification Co., brown coal is used to make natural gas, which burns much more cleanly and is more economical to transport.

Pumping CO₂ into oilfields

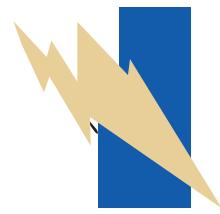
Under a demonstration project, the CO₂ produced by the synthesizing process is purchased by two Canadian oil firms: EnCana and Apache Oil. It is piped 205 miles, across the border into Saskatchewan, where it is injected deep into two oil fields that are far past their peak production.

The gas forces otherwise unrecoverable petroleum to the surface. EnCana says that it hopes to extend the life of its oil field by as much as 25 years, and pull 135 million additional barrels of oil from it.

The project is the largest carbon sequestration effort in the world, and is already responsible for storing 10 million tons of the CO₂. The project is being expanded to store 3 million tons of CO₂ each year.

Initial data show that the carbon dioxide is staying where it's put, making a tangible contribution to the effort to reduce greenhouse gas emissions, as well as increasing domestic energy supplies, Robb says. The success of the project has encouraged the cooperative to move on to the next step: looking for ways to remove CO₂ from the flue emissions of conventional coal-fired generation plants.

Basin Electric is currently evaluating proposals from six vendors to build a demonstration flue-gas carbon sequestration project. A decision is expected in December. Robb proudly asserts that Basin Electric is the only utility seeking to remove carbon dioxide from flue-gas. "Other utilities talk about it," he says. "We're actually doing it." ■



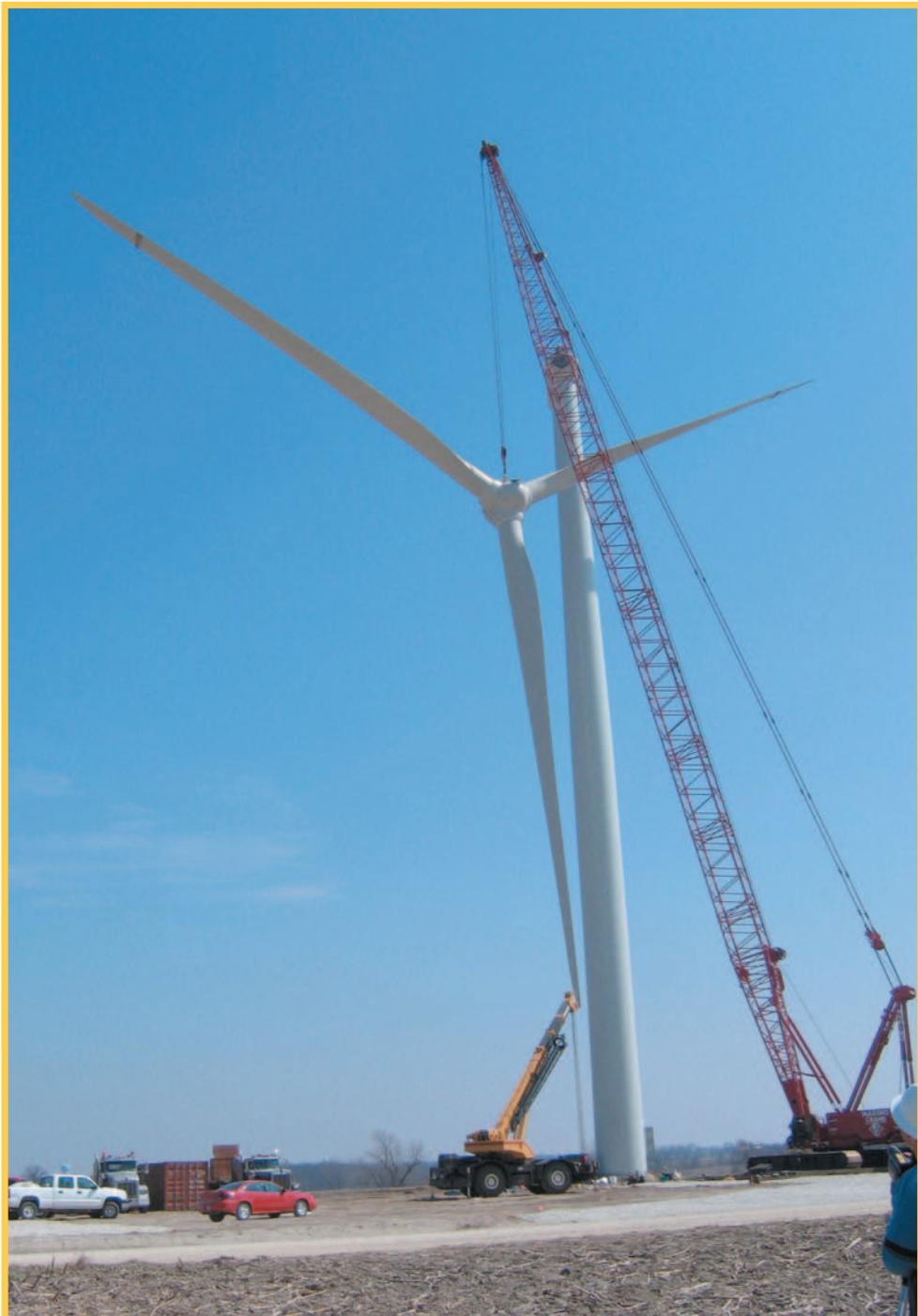
Advanced technology enables Illinois electric co-op to tap into wind power

By Anne Mayberry
USDA Rural Development
Rural Utilities Programs

Driving across rural Illinois in December, the landscape is one of pale gold crop residue set against rich brown soil. But in one part of rural Pike County, Illinois, the landscape has changed dramatically. Now, towering 365 feet above the fields is a wind turbine erected by Illinois Rural Electric Cooperative (Illinois REC).

Since it was installed in May, 2005, the turbine — Illinois' first — has been producing power at full capacity 30 percent of the time, depending on wind speed and frequency. This is in keeping with projections in the project feasibility study.

Many parts of the nation, including much of Illinois, were previously thought to lack the wind resources necessary for wind power. But wind turbine technology has improved greatly in recent years, with utility-scale turbines generating electricity at wind



Many parts of the nation previously thought to lack wind resources can now generate wind power, thanks to advances in turbine technology. This turbine was recently erected by the Illinois Rural Electric Cooperative (IREC). Photo courtesy IREC

speeds as low as six miles per hour.

"The new technology allows the turbines to operate at a lower wind speed, and that changes the equation of where they can be located," says Sean Middleton, the co-op's manager of engineering.

States such as North and South Dakota still have an advantage because the wind blows so much more there. "In the Dakotas, the 30 percent full capacity we see in Illinois would likely be closer to 40, 50 or even 60 percent capacity," Middleton says.

But variability of wind can pose problems. Wind power is not classified as base-load power because it cannot be relied upon 24/7 to provide enough electric power to meet member needs.

USDA loan aids project

Wind power is among the fastest growing forms of renewable energy in the United States. It is also one of the lowest-cost, non-hydro sources of renewable power. Once a turbine is paid for, wind is essentially free fuel that produces no greenhouse gas emissions. With the increasing cost of fossil fuels and the low environmental impact of wind turbines, wind power is "the right thing to do," Middleton says.

Illinois REC's wind project was boosted by a \$1.3 million loan from USDA Rural Development's Utilities Program. The wind project earned the co-op the Wind Cooperative of the Year honor from the U.S. Department of Energy in 2006.

The initial thrust for the wind project began with the co-op's members. "We do annual surveys of our members, and one question asked whether we should explore involvement in alternative sources of energy," Middleton says. "The answer was an overwhelming 'Yes!'"

"Our next step was to see how we could make alternative energy sources work for us," Middleton continues. "Cooperatives are good at managing



USDA provided a \$1.3 million loan for this Illinois turbine.

large project would require contracts to sell the wind-generated power. Can it happen? Yes, he says, but there are no current plans to expand the co-op's wind project.

The lack of transmission capacity is a major obstacle to increasing wind power. Utilities in the surrounding parts of the state are "not excited about wind farms, in part, because of the cost of moving this new power load around," Middleton explains. Nonetheless, about 150 electric cooperative utilities across the country own wind facilities or have agreements in place to purchase wind power.

Another constraint to wind power is that some of the best wind sites are found in mountains and coastal areas, where turbine placement can cause scenic-impact concerns.

In Pike County, the overall community has always been supportive of the wind project, Middleton says. For the most part, the co-op managed to avoid the negative issues that sometimes arise from constituencies with conflicting goals. However, initially there were some critics, Middleton says. "The concerns focused on possible harm to birds and the noise issues. But those concerns did not materialize."

The co-op's wind turbine produces less sound than does an average household, in large part because new-model rotors now turn much more slowly than did rotors on older model turbines. The slower rotational speeds also reduce the risk to birds.

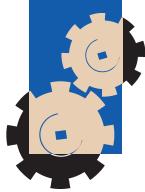
Since the turbine was installed, community support has been overwhelming. "People see the turbine up close, and that makes a difference," Middleton says. "They love it. We've put in a small community park by it. We don't have picnic tables yet, but we get families coming out to play, take pictures — just to visit. That might be the difference between people in cities and rural areas." ■

Reducing purchased power costs

"Wind power accomplishes two goals," Middleton says. "First, integrating it into the power grid means Illinois Rural Electric Cooperative has to buy less power. It is also causing the co-op to look at the feasibility of power storage, which ultimately could result in another renewable energy project."

Currently, the turbine generates 1.65 megawatts of power, enough to provide electricity to 500 homes. Wind levels in central Illinois could support as many as 100 turbines, Middleton says, which could add as much as \$7 million to the local tax base.

The co-op is looking at adding a few more turbines, but Middleton says any



Driving Development in the Delta

Mississippi co-op organizations promote self-help recovery efforts following hurricanes

By Jane Livingston,
CooperationWorks!

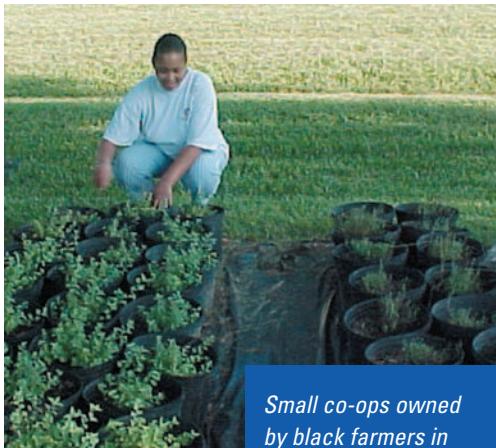
African-American farmers and other rural people in Mississippi have been overcoming hurdles in their pursuit of prosperity for many years. The devastation that followed in the wake of the 2005 hurricane season dealt them another severe blow. But within hours of Hurricanes Katrina and Rita passing through, people here were mobilizing not only to help themselves, but to reach beyond the state border to their neighbors in Louisiana.

One of the most active first responders to the crisis was the Mississippi Association of Cooperatives (MAC) and its Center for Cooperative Development. With a 35-year track record of helping rural people use the cooperative business model as a springboard for economic development in the nation's poorest region, MAC was in a good position to offer help.

Center staff members Ben Burkett and Melbah Smith traveled through the afflicted region, holding "Co-op 101" trainings in mud-spattered tents in the temporary evacuee camps, using flip boards and storytelling where no PowerPoint could go, filling out forms with farmers using pick-up tailgates as their desks.

Seeing results

Two years later, there are measurable results in both states. MAC members, such as South Rankin County Farmers Cooperative, are supplying fresh produce to farmers markets



Small co-ops owned by black farmers in Mississippi are successfully marketing produce to schools, farmers markets, casinos and other customers because they are organized into the Mississippi Association of Cooperatives, which supports a Center for Cooperative Development.

that the Center helped start or re-open. One of these is in New Orleans' Ninth Ward; the others are in Ocean Springs and Hattiesburg, Miss.

The Center has also seen results from working directly with some of MAC's 13 members to improve marketing strategies. Producer-owners of Indian Springs Farmers Association in Petal, Miss., have nearly tripled their annual sales. Among their buyers: two charter schools in New Orleans with which the co-op created a business relationship during the past two years.

And with the assistance of the Center and the Mississippi Department of Agriculture's Farm-to-School Program, the co-op

has been selling produce to Mississippi schools for two years. Producers have realized a 35-percent increase in revenue from their co-op as a result of this program.

Another niche targeted by Indian Springs is the Gulf Coast casinos, which were back in operation less than a year after being virtually wiped out by the hurricanes. The co-op sells them tens of thousands of dollars' worth of produce annually.

Co-op model for outreach

One of the reasons for the Center's consistent ability to provide the cooperative tools of self-help to the region's farmers and rural residents is the value given to community

continued on page 39

Spreading Seeds of Success

Alabama Farmers Co-op and its Bonnie Plant Farm play big role in strengthening the rural South



Editor's note: This article is an expanded version of one that originally appeared in CoBank's 2006 annual report. Learn more about Alabama Farmers Co-op at www.alafarm.com, and Bonnie Plant Farm at www.bonnieplants.com.

 If you're a resident of rural Alabama or even parts of Florida, Georgia and Mississippi, you're likely to benefit — perhaps more than you know — from an agricultural cooperative that was born during the 1930s to help farmers get a tax break on nitrogen fertilizer.

These days, you'll find much more than fertilizer at Alabama Farmers Cooperative (AFC), one of the largest farmer-owned businesses in the Southeast. Since it began 71 years ago, the federated supply and marketing cooperative has served the region with nearly every imaginable agricultural supply and service.

Based in Decatur, Ala., the multifaceted company is owned by 46 local, farmer-owned cooperatives that represent more than 30,000 members. Originally known as Tennessee Valley Fertilizer Cooperative, AFC typically sees annual revenues reach more than \$300 million.

Grain marketing, cotton ginning and catfish processing are major divisions of AFC. Member co-ops also operate 80 farm-supply retail stores that sell everything from feed, seed, and fence supplies to garden materials, animal health products and sporting goods for a rising number of non-farm residents.

Powered by its diversity, AFC is channeling income to farmers, jobs to 2,300 people, support to related businesses and millions of dollars into rural communities.

"AFC and its member co-ops provide a lot of retail outlets in the community and much-needed products

Bonnie Plant Farm grows 20 varieties of vegetables, 22 types of herbs and more than two dozen different flowers (primarily annuals), including the pansies pictured here with co-op manager Dennis Thomas.

and services for farmers," says Jimmy Newby, an Athens, Ala., farmer whose family — through its membership in Limestone Farmers Cooperative — has done business with AFC since 1960. "Those benefits and services would be sorely missed if AFC wasn't here to provide them."

This Southern agricultural leader has built its success in large part by anticipating customers' needs and developing innovations to meet them. Perhaps no AFC division typifies that approach more than its Bonnie Plant Farm division.

Winning over Wal-Mart

Based in Union Springs, Ala., Bonnie Plant Farm is one of the nation's largest sellers of tomatoes, vegetable plants, herbs and flowers. As a wholesale company, Bonnie Plant Farm doesn't sell directly to the public. Instead, the division ships to 49 states, supplying major home and garden retailers like Wal-Mart, Home Depot and Lowe's.

In Union Springs alone, Bonnie Plant Farm employs 200 workers, mostly in greenhouse and delivery operations, and generates a yearly payroll of \$40 million.

"We're one of two major employers in this area [the other is a chicken-processing plant] with a huge economic impact," says Bonnie Plant Farm manager, Dennis Thomas. "A lot of people are counting on us to succeed."

Bonnie Plant Farm has achieved its success in part with an innovative inventory and delivery system for its retail buyers. Using a process now copied by competitors, Bonnie Plant Farm trucks its high-quality plants directly to customers' stores, where it also stocks the products on the shelves. Only when plant sales are recorded at the cash register by scanning each container's Universal Product Code is Bonnie Plant Farm credited.

The paperless system streamlines inventories and increases efficiency for retailers. Most important, it creates customer satisfaction. It's a major reason why Wal-Mart named Bonnie Plant Farm its Vendor of the Year in 2005 — and why the plant wholesaler has seen its revenue soar.

Partnering for success

Today, AFC relies on a handful of lenders to finance the operations of Bonnie Plant Farm and the co-op's numerous other divisions. As a long-time financial partner, CoBank helps fund AFC's seasonal operating needs. CoBank specializes in financing U.S. agribusinesses, particularly cooperatives, as well as rural communications, energy and water systems and agricultural exports.

A CoBank subsidiary, Farm Credit Leasing supplies delivery trucks and greenhouse equipment for Bonnie Plant Farm. Bank of America and Deere Credit serve as additional AFC financial partners.

"Having multiple lenders was once unthinkable," says AFC's chief financial officer, Dan Groscost. But, he adds, the diverse banks work well together to help manage risk for AFC's multimillion-dollar operations.

Grandparents' legacy

"There's no question that our people, products and partnerships are key to our success," says Tommy Paulk,



Bonnie Plant Farm employs 200 permanent workers and 3,000 workers during peak season, generating an annual payroll of \$40 million in the Union Springs, Ala., region.

AFC's CEO since 1996.

Paulk, the fourth CEO in the co-op's history, might also credit his grandparents, Bonnie and Livingston Paulk. The two established Bonnie Plant Farm in 1918 near Union Springs, Livingston's hometown.

Expanding beyond a bare living of raising cotton, corn, peanuts and hogs, the couple began producing cabbage plants to sell to merchants during the winter months. The venture proved successful, with the Paulks boosting their efforts by advertising in the local newspaper.

The business grew steadily as the couple added more field-grown vegetables to their sales inventory. They soon christened their budding business, naming it after Bonnie Paulk. The Paulks began advertising their vegetables in every weekly paper in Alabama and in the South's leading farm papers.

By 1940, Bonnie Plant Farm counted about 2,000 regular customers. It shipped to 10 Southern states besides Alabama.

continued on page 39

Small Advantages



*Are small co-ops
still viable in Ireland's
dairy pastures?*

Editor's note: Briscoe is program director and Ward is deputy director at the Centre for Cooperative Studies at the National University of Ireland in Cork. This is the second of a two-part look at dairy co-ops in Ireland. The first article appeared in the Sept.-Oct. issue.

"Why is a company the size of Glanbia paying farmers a lower price than smaller co-ops that never amalgamated with anyone?"
— Farmer quoted in the Irish Farmers' Journal, May 21, 2005

Beware the "Grey Ones!"

The English novelist J.B. Priestley wrote a thought-provoking tale called The Grey Ones that told of a sinister secret society that specialized in discouraging optimistic people.

The Grey Ones did this by explaining — in merciless detail — why progressive ideas and hopeful dreams could never possibly work, "human nature being what it is!" Sometimes, we might be forgiven for suspecting that co-ops have attracted more than their fair share of Grey Ones — those experts who seem to delight in pointing out to us, in scornful detail, why cooperative practices and principles are hopelessly at odds with conventional management wisdom.

We are told, for example, that conventional management wisdom requires considerable economies of scale if producer co-ops in agribusiness are to meet the needs of their members and survive in a global economy. But consider the quotation at the start of this article, in which a farmer compares the performance of the biggest of Ireland's dairy co-ops with the performance of some of the smallest. In spite of the conventional "wisdom," many of the smaller dairy co-ops in Ireland appear to be able to pay higher milk prices to members than some of the giants, as well as contributing more fully to the sustainability of local communities. How is this possible?

Another tenet of the conventional "wisdom" is that co-ops, particularly smaller ones, are inevitably less flexible than conventional firms. Co-ops, we are told, are less agile because they are obliged to buy all of their members' outputs, regardless of whether or not there are markets for all of it. However, in spite of conventional "wisdom," Irish dairy co-ops of all sizes have found ways of increasing their flexibility regardless of their size. How was this possible?

We are also told that co-ops, particularly the smaller ones, are conservative and slow to respond to new opportunities. In Ireland, for example, smaller agri-co-ops were criticized for retaining retail outlets, going against conventional management advice. However, their retail outlets continued to generate profits and provided invaluable services as well as jobs for rural communities. Now, many of the major co-ops and co-op Public Limited Companies (PLC) are investing heavily in new retail ventures.

This article addresses the question of how is it possible for

small- to medium-size co-ops to fly in the face of conventional management "wisdom." It suggests that conventional "wisdom" may not be as wise as its advocates would have us believe.

Multi-purpose dairy co-ops

Irish dairy cooperatives are multi-purpose businesses. Dairy processing is their prime activity, but they also engage in activities such as grain handling and storage, meat processing and the sale of farm supplies. According to the 2005 annual report of the Irish Cooperative Organization Society (ICOS), there were 31 dairy cooperatives in Ireland, including co-ops with holdings in PLCs. These co-ops had 88,564 members and total sales of 10.5 billion euros. They range in size from the very small to global organizations operating on almost every continent.

The three largest dairy co-ops (Kerry, Glanbia and Dairygold) account for 82 percent of the total sales of dairy co-ops and 44 percent of the members. Medium-size co-ops account for 14 percent of the total sales and 47 percent of the members.

Small co-ops that process milk account for 3 percent of the total sales and 5 percent of members. Very small co-ops that collect milk and then sell it to larger co-ops to process account for 1 percent of the total sales and 3 percent of members.

Conventional wisdom vs. common sense

In spite of such wide variations in size, the quality of services to farmers and the milk prices they enjoy seem to be independent of size, because many smaller co-ops are outperforming their bigger neighbors. Smaller- and medium-size co-ops have found a variety of innovative ways of responding to the conventional wisdom, which advocates the following kinds of strategies for achieving economies of scale:

- the merger of co-ops;
- rationalization of manufacturing facilities and services, and
- growth through acquisitions.

Economies of scale

Over the years, experts have urged Irish co-ops to amalgamate into a single mega-co-op, but many small dairy cooperatives have deliberately remained small and independent. They see this as the best way of serving their member/users into the future. They point to what they regard as relatively poor performance by the larger cooperatives and the negative consequences of mergers, such as the decline of formerly vibrant rural communities.

Proponents of small co-ops also argue that a mix of dairy ownership structures and scale of operation are good for the industry because they ensure a competitive environment. They often refer to the woeful state of dairy farming in the United Kingdom, where more than half of dairy farmers have left the industry since 1995, (see Felicity Lawrence's "Why British dairy farming is in crisis," *The Guardian*, London.

April 24, 2007). They also cite the nightmare condition of the Chilean dairy industry, where conventional “wisdom” led to a single multinational manufacturer setting the price of milk.

More recently, the *Prospectus Report* (2003), commissioned in Ireland by the government and industry, argued that the Irish dairy industry is falling behind its international competitors and that much larger processing units are required to shift the emphasis on to more value-added products and investment in research and development. The report also recommends forming larger farms.

“A consolidated player needs to emerge in the medium term with a scale at which it is processing around 70 percent of the processed milk,” said Joe Rea, commenting in the *Irish Farmers’ Journal* in April 2003 on the Milk Price League (a table that compiles the prices Ireland’s dairy co-ops pay to their members).

It was also pointed out that even if all of Ireland’s dairy co-ops were to merge, the resulting “giant” would be smaller than the biggest dairy co-ops in Europe, and far smaller than Dairy Farmers of America and New Zealand’s Fonterra.

In spite of such recommendations, Irish co-op farmer shareholders have been somewhat reluctant to amalgamate. The merger in 1997 of Waterford and Avonmore Co-ops and PLCs (to form Glanbia) was accepted only after members were promised substantial financial benefits to sweeten the deal.

The case against merger

Merger is resisted for a number of reasons. Many farmers have a sense of loyalty to their co-op that goes far beyond mere commercial considerations. They take pride in their co-op’s achievements and in the foresight of their ancestors. They also worry about the detrimental impact of merger on local employment and the sustainability of neighboring communities.

Above all, they believe that healthy competition between several independent cooperatives leads to efficiencies, ensures farmer influence and enhances member services and the milk price paid to farmers.

The presence of cooperatives side by side with PLCs is an added complication in attempts at amalgamation. The PLCs tend to regard acquisitions, particularly overseas acquisitions, and in-house diversification as more important strategies for growth than amalgamating with other local co-ops. The PLCs are less concerned with primary milk processing and do not see their major profits coming from this source.

Is ‘small’ manageable and cost effective?

Many Irish farmers are sceptical about the efficiency and economy argument for large-scale milk processing. They point to medium-size societies — such as Town of Monaghan Co-op in Ulster or Newmarket in Munster — which regularly outperform the largest co-ops and PLCs on milk price and service to farmers.



“The performance of Newmarket [a medium-sized co-op] is remarkable,” said Joe Rea, commenting in the April 2003 *Irish Farmers’ Journal*. “With only 8 million gallons of owned quota, it is a pace-setter.” Newmarket is virtually an all-cheese manufacturer, which was a very difficult product to sell last year. “Monaghan tops the Price League,” Rea

continued. “It has performed very well over the last three months, paying impressive spring bonuses.”

The efficiency of small, well-managed cooperatives operating in niche markets has international parallels. In New Zealand, Tatua Co-op and Westland Milk Products, with less than 5 percent of the milk supply, outperform the giant Fonterra on milk price.

Co-op leaders in this sector maintain that small- to medium-size operations can enjoy unique competitive advantages of their own. These include better communications with farmer-suppliers, staff flexibility, efficient hands-on management, greater motivation and identification. In the words of one manager: “With hands-on management, we can gradually keep equipment and technology up to date without having to embark on major investment programmes. Also, we can often spot bargains or acquire pieces of equipment at rock-bottom prices from dairies or bigger co-op branches that are closing down and, if necessary, put it into storage.”

Yet another manager said: “As outfits get big, real control is lost ... around here, the labor force has been reduced gradually — with the advent of new technology — by simply not replacing staff. So there is no need for big, expensive rationalization programs, which destroy morale and alienate the local community.”

Farm efficiency or economies of scale?

In an interview in the *Irish Farmers’ Journal* (June 24, 2004), the chairman of Newmarket Co-op argued that all co-ops need to be proactive to encourage their suppliers to stay in milk production. A big part of this effort involves promoting increased financial management skills among dairy farmers. In other words, greater efficiency at the farm level is a key issue.

“Some people talk about increasing scale as the panacea to all ills; here it can be clearly seen that those farms that reduced costs considerably did not do it by increasing scale, but by cutting out the cost of infertility, machinery and buildings — and by increasing labor productivity,” said Arndt Reil, who compiled a cost-comparison study for the 2004 European Dairy Conference in Wales (as reported in the *Irish Farmers’ Journal*, July 17, 2004). “Reducing costs on the farm is one of the main ways farmers can influence how much money ends up in their pockets,” the same article concluded.

Competitive advantages of being Irish!

Many co-op leaders, especially those from small and



Many Irish dairy cooperatives are highly diversified, some also marketing livestock feed and other farm supplies, operating retail outlets and even selling real estate. Photo courtesy Connacht Gold

medium-sized societies, argue that it is not legitimate to compare the Irish dairy experience with that of New Zealand or mainland Europe. Irish dairy farmers have distinctive competitive advantages when compared with their counterparts in Denmark and Holland. Milk can be produced at lower cost than in mainland Europe, given the fact that Irish cattle are free to roam fields and dine on fresh grass for most of the year.

One respondent argued that an Irish supplier with a 55,000-gallon milk quota could generate as much income as a Danish farmer with twice that amount of quota. They assert that Irish co-ops should look more closely at their own achievements and successes of the last quarter century and build on these achievements rather than always looking abroad at situations which are not comparable.

Enjoying the best of both worlds

The above arguments may sound reasonable, but do they really compensate for the loss of economies of scale? In fact, small cooperatives have also found tangible ways of enjoying the advantages of scale while remaining small. Almost all of these strategies involve cooperating with other co-ops in ways such as these:

- *Processing together* — Carbery Creameries Ltd. in West Cork is a widely admired federated co-op. This second-level milk-processing cooperative is owned by four small-to medium-size cooperatives: Drinagh, Bandon, Lisavaird and Barryroe co-ops. Respectively, they hold 39, 22.6, 20 and 18.4 percent of Carbery shares. It processes all of the milk (74 million gallons) collected by the four co-ops in

their own trucks, which retain the individual name and logos of each co-op. Carbery is a leading cheese manufacturer (Dubliner Cheese is its best known brand) and it has some involvement in food ingredients and alcohol production. It operates its own dedicated research and development facility. The individual co-ops that own Carbery continue to operate independently. They operate their own farm stores, provide services for their own members, and each decides on the milk price it pays its own members.

Despite this, or perhaps because of it, they typically pay the top milk prices in the country. Eric Donald, commenting in the *Irish Farmers' Journal* in 2006, said: "For the second year in a row, Bandon has emerged to pay the highest price in the country... the second and third highest milk prices in the country last year were also paid in West Cork by Barryroe and Lisavaird, respectively. Wexford creameries disrupted the West Cork four-in-a-row record by placing just ahead of Drinagh Co-op."

To the surprise of the pundits, Glanbia topped the milk price league in October 2006, with one of the Carbery co-ops a close second, underlining the importance for farmers of the strong competition from the smaller co-ops.

- *Marketing together* — The Irish Dairy Board (IDB) is a second-level federated cooperative owned by Irish dairy co-ops. With subsidiaries in the United Kingdom, Germany, Belgium, France and the United States, IDB's key task is marketing Ireland's dairy products internationally. It has proved particularly useful for small- to medium-size co-ops, enabling them to access export markets. Inevitably, to some

extent it duplicates the marketing activities of the larger co-op/PLCs, but it still enjoys strong support from the big co-ops. With a sales turnover in 2004 of 2 billion euros, IDB has enabled small-scale Irish co-ops to enjoy the benefits of large-scale operation.

Its key competitive advantage is the Kerrygold brand, a trusted brand for quality butter in about 60 countries. The Kerrygold brand accounts for 47 per-cent of the IDB's total sales, with a third of Kerrygold butter being sold in Germany. There is also considerable potential for using the Kerrygold brand to promote other consumer products in Europe. In recent years, IDB has been highly profitable, with pre-tax profits in 2003 reaching a record level of 36.5 million euros.

- *Purchasing together* — Irish dairy co-ops have traditionally been involved in operating stores, with the aim of reducing the costs of farm inputs and supplies. The larger co-ops and PLCs have enjoyed favourable terms with conventional wholesalers. These deals were not always available to smaller co-ops. To address this problem, CEOs of smaller co-ops met in 1996 and set up Associated Trading Co-op (ATC), an association of co-ops that would coordinate the purchasing of a wide range of store goods, with the aim of improving the profit margins and competitiveness of their members.

Today, 20 of the smaller cooperatives are members of ATC, which has an annual turnover of 30 million euros. It is a low-overhead agency, without warehouses, inventory or delivery trucks and is managed by a part-time coordinator, assisted by representatives of the membership. It pools the orders of member co-ops and identifies and negotiates with potential suppliers, which are visited to ensure quality standards.

Members are required to purchase the amounts they ordered from the selected sources, and goods are delivered direct to the co-ops by the suppliers. ATC has also developed its own brand name, Co-op Source, and suppliers pack a growing range of products in Co-op Source packaging. The aim is to build an attractive brand, which guarantees quality products at reasonable prices.

Different approaches to rationalization, restructuring

While cooperatives are often slow to merge, many of them, particularly the bigger ones, have embarked on rationalization. For example, Dairygold has divested itself of a number of unprofitable operations and reduced its labor force by one quarter. Glanbia PLC has a turnover of about 2 billion euros and is 55 percent owned by Glanbia Co-op. It has almost completed a major restructuring of its food operations and is now growing businesses in cheese-based nutritional ingredients and consumer foods in the United States. Its emphasis on health-based functionality is being supported by a new 15-million-pound research and development innovation center in Kilkenny.

On a more modest scale, many smaller cooperatives are rationalizing their milk transport collection divisions by outsourcing, or by making arrangements with neighboring co-ops. Connacht Gold is providing a 2-cent-per-gallon bonus for farmers who invest in new higher capacity milk bulk tanks on their farms. This will allow the co-op to move to an every-third-day milk collection schedule. Two or three co-op drivers will work a 24-hour shift with the same truck.

This is a very different way of rationalizing. Unlike the usual approach, this is a rationalization strategy that: a) benefits farmer members by decreasing their co-op's costs, and b) protects jobs in local communities.

Who benefits from acquisitions?

Acquisition (particularly overseas acquisition) is a favored route to growth for the giant co-op PLCs, and has led to considerable diversification. Kerry Foods, for example, is a very successful business, but fewer and fewer of its activities relate to the needs of local dairy farmers. In 2004, Kerry Foods spent 665 million euros on eight acquisitions, and it recently set up a Bioscience Division, thus extending the group's food ingredients platform to bio-ingredient and pharma-ingredient applications.

This opens up a new range of customers for Kerry in the pharmaceutical industry. During the past 10 years, Kerry has invested an average of 4.5 million euros per year on the continuing development of this site. In spite of its scale of operation, Kerry is being pressured by major U.K. retailers to relocate some of this Kerry-based production to England for the convenience of Tesco and Wal-Mart.

Impact of different types of acquisition

The above approaches to growth through acquisition ultimately export Irish funds and jobs overseas and divert substantial profits to non-farmer investors, all of which is likely, in the long run, to have a detrimental effect on the survival of small-scale farmers and rural communities in Ireland.

The kind of acquisitions favored by small- and medium-size co-ops are often in marked contrast to those of the giant co-ops. Instead of hemorrhaging local resources, they build local communities and expand cooperative membership.

For example, Town of Monaghan Co-op, a medium-size co-op, has grown by acquiring the privately-owned Leckpatrick milk powder plant in Artigarvan, County Tyrone, and now processes milk in Northern Ireland for the first time. At its Artigarvan plant, it also produces a range of hydrolysed wheat and rice flours with various applications for end users in the bakery, baby foods, breakfast cereals and high-energy foods sectors.

Informal cooperation — and being kind to giants!

Another complaint of the "Grey Ones" is that co-ops lack flexibility because they have to buy all the output of member

farmers, regardless of the co-op's ability to process all of it at a profit. While the smaller co-ops are proud of their independence, they resolve the flexibility problem by working closely with nearby larger co-ops and PLCs.

For example, there is considerable cooperation between Irish co-ops and PLCs for milk collection and the use of processing facilities at both off-peak and high-peak seasons. Consider Newmarket Co-op in North Cork, which purchases milk from neighboring co-ops and PLCs to supply its established cheese markets and keep its plant running smoothly and at a high capacity. In turn, the other dairies are happy to supply milk rather than invest in a higher capacity plant, which they would use only for a short period each year.

Glanbia PLC, in which Glanbia Cooperative Society is majority shareholder, collects about 60 percent of the Mullinahone Cooperative's milk quota of 1.7 million gallons. All of the milk testing for Mullinahone is done in the Glanbia



Connacht Gold's diversified operations are represented here by livestock feeds and a milk tanker truck. Photos courtesy Connacht Gold

laboratories. However, Mullinahone processes all of its own milk.

Irish co-ops also cooperate informally on EU milk quota issues. For example, in the winter of 2003, a small number of Kerry, Lakeland and Arrabawn dairy farmers transferred part of their milk supplies to Connacht Gold and gained access to its large 'restructuring' milk pool. The move was supported by all the co-ops involved.

Connacht Gold took in the dual supplies because it had satisfied demand for its 'restructuring' quota among its existing suppliers. In most cases, the suppliers transferred 5,000 to 10,000 gallons of their milk quota to Connacht Gold, which benefited from an increased milk supply. Kerry, Lakeland and Arrabawn co-ops were happy to support their own members' gaining access to additional quota because this increased family farm income.

Other advantages of being small

Among the other advantages of running small operations are: responsiveness on health issues, product traceability, maintaining closer relationships with farmer-members and the ability to respond more rapidly to member and customer needs.

Smaller co-ops maintain that they are better situated to

build consumer confidence on traceability and health issues. This, they say, is because they are much more in touch with their farmer suppliers. Stronger links with suppliers and awareness of their needs, together with the flexibility of a small-scale operation, mean that small co-ops can react swiftly to help farmers deal with farming difficulties.

What conventional firm would act like this small cooperative?

The following excerpt from the 2002 North Cork Cooperative Society annual report underscores what proponents see as the small co-op advantage.

"The adverse weather conditions last summer created serious income pressure on our members, which was keenly felt at the farm level. As an independent cooperative, we are deeply committed to providing appropriate support for our members, and we swiftly moved to cushion their problems by supporting the milk price throughout the year.

"Your Society also introduced a further series of schemes aimed at easing the serious financial strain on members, which saw feed prices reduced. These extraordinary measures were taken to help members through a particularly difficult season and were funded from co-op reserves."

Cooperative outsourcing

Many smaller co-ops are beneficiaries of outsourcing from the larger co-ops and PLCs. Although operating on strictly business lines, cooperative outsourcing is also an indication of cooperation between cooperatives.

Dairygold Co-op has chosen Town of Monaghan Cooperative to produce its Sno brand of yogurt products. Town of Monaghan already produces Spelga Yogurt (which is the market leader in Northern Ireland) for Dale Farm Ltd., in addition to its own Mona brand.

It is not only the larger co-ops that are engaged in outsourcing. Some of the smaller ones have been able to use this approach to enhance their efficiency.

Thwarting the pessimists!

Small can be efficient as well as beautiful!

We have seen how small co-ops can address scale issues in production, marketing and purchasing by observing the cooperative principle of Cooperation between Cooperatives. A compilation of effective federations, joint ventures, second-level co-ops and intelligent mutual aid can enhance the effectiveness of small and large alike, and thwart the cynical pessimism of the Grey Ones!

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USDA providing \$22.7 million in Value-Added Producer Grants



SDA in September announced the selection of 162 recipients in 40 states and Puerto Rico to receive \$22.7 million through the Value-Added Producer Grant program.

“These grants support farm families in rural America by helping them market their commodities and increase their financial returns,” said then-Agriculture Secretary Mike Johanns. “I’m also pleased that some of these funds will help develop alternative fuels from renewable energy sources as part of President Bush’s comprehensive national energy policy.”

Approximately one-third of the grants, 56, will go to recipients who requested \$50,000 or less in federal assistance.

One of the largest awards went to Sunsweet Growers in California, where USDA Rural Development State Director Ben Higgins presented the co-op with a \$300,000 check to assist the Yuba City-based cooperative in marketing a new “light” version of its “PlumSmart” juice drink. Sunsweet is a grower-owned marketing cooperative of more than 400 members, well known for dried-plum products. The cooperative represents more than one third of the dried plum market worldwide.

“In today’s global marketplace, California’s agricultural cooperatives understand that they need to stay on the cutting edge of innovation to remain competitive,” Higgins said. “This grant will help improve the competitiveness of Sunsweet Growers by supporting innovative new production and marketing strategies.”

Since October was national Cooperative Month, Higgins noted that California is home to more than 160 cooperatives with gross sales of more than \$7 billion annually, and that farmer-owned co-ops nationally had sales of \$126 billion in 2006. USDA Rural Development has invested more than \$9.3 million in California cooperatives alone since 2001.

Other examples of the VAPG awards include:

- Quality Dairy Goat Producers Cooperative of Chilton, Wis., was selected to receive \$37,500 to help it market quality goat milk to high-end cheese companies.
- Krouse Ranch Inc., Grants Pass, Ore., will receive an award of \$17,650 to develop a feasibility study to process and market cut and dressed beef through local farmer-chef connection programs.

- MinnErgy LLC, Winona, Minn., was selected for an award of \$300,000 to fund the initial startup for an ethanol plant.
- Orlicek Farm, Stuttgart, Ark., was selected to receive \$98,500 to determine the feasibility of marketing biofuels from a facility in Arkansas.

Value-Added Producer Grants may be used for planning activities or to provide working capital to market value-added agricultural products and farm-based renewable energy projects. A value-added product is created when a producer takes an agricultural commodity, such as milk or vegetables, and processes or prepares it in a way that increases its value to consumers.

USDA Rural Development has committed more than \$158 million to value-added agricultural investments since 2001.

Below is a list of cooperatives that received VAPGs in 2007. Many producer-owned LLCs that operate on co-op principles were also among the grant recipients. A complete list of grant recipients is available at USDA Rural Development’s Web site: <http://www.rurdev.usda.gov>. ■

Co-op Recipients of 2007 VAPGs	STATE	AMOUNT
Olive Growers Council of California	California	\$288,485
Sunsweet Growers, Inc.	California	\$300,000
1Soy	Missouri	\$68,000
Quality Goat Dairy Producers	Wisconsin	\$37,500
Oregon Woodland Management and Sales Cooperative	Oregon	\$147,085
Tasteco Cooperative Inc.	California	\$296,500
Ozark Quality Hardwoods Coop	Missouri	\$145,000
Blue Ridge Forest Cooperative Inc.	Virginia	\$300,000
Agri-Mark/Cabot Creamery Inc.	Vermont	\$149,000
High Desert Milk Inc.	Idaho	\$300,000
Mercer Landmark	Ohio	\$300,000
Carolina Dairy Producers	N. Carolina	\$45,000
Burnett Dairy	Wisconsin	\$300,000
Pecos Valley Biomass Co-op Inc.	New Mexico	\$50,000
Colorado Cooperative Council	Colorado	\$70,000



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GROWMARK sets sales, income records

GROWMARK had record sales of \$4.4 billion and record net income of \$151 million, before patronage and dividends, for fiscal 2006-07 (which ended Aug. 31). The federated co-op will also be returning record amounts of



Growmark Chairman Dan Kelley (left) and CEO Bill Davisson.

patronage to its member co-ops.

“Our wholesale businesses that provide seed, plant food, crop protection products, grain systems and energy products and services all produced strong results,” Vice President of Finance Jeff Solberg said.

More than \$105 million in patronage refunds will be returned to GROWMARK member cooperatives. “This is the first time in nearly three decades that we have distributed patronage refunds from all of our major product divisions. It will be the largest amount of cash returned to members in the history of the GROWMARK System, and is a tribute to the unity of the System,” Solberg said.

Highlights of the co-ops’ record-breaking year include:

- Energy Division — This unit posted its fourth consecutive record for gross

income: \$131 million, or \$31 million more than in 2006. Refined fuels volume climbed, driven by strong growth in sales of premium Diesel Gold products. Propane sales also set a record, and GROWMARK sales of FS-branded lubricant products, as well as the United and Archer brands, tripled.

- Agronomy/Seed Divisions — Record sales were achieved in the Agronomy Division, with expanded corn acreage leading to higher levels of plant food sales. Despite a 10-percent drop in soybean sales, overall seed sales in 2007 were 22 percent higher than a year ago and triple the level of 2000. Total seed corn sales were up 52 percent.
- Facility Planning and Supply Division — Strong demand for grain storage tripled grain systems sales in just three years; volume through the co-op’s Tank and Truck Center showed an eighth consecutive year of sales growth.
- Grain Division — Total Grain Management (TGM), a partnership between GROWMARK, Effingham-Clay Service Co. and Wabash Valley Service Co., had its first successful year, marketing nearly 50 million bushels of grain from 21 locations.

Study: CWT boosted milk checks 75 cents per HW

The return this year on dairy farmers’ investment in Cooperatives Working Together (CWT) will be at least 75 cents per hundredweight (HW), according to an independent economic analysis of the voluntary dairy farmer-funded and managed self-help program.

The analysis was performed by Dr.

Scott Brown of the University of Missouri, a nationally-known farm policy expert who is regularly called on by the U.S. Congress to assess agricultural economic issues. Brown evaluated the impact of CWT’s 2007 herd retirement and export assistance program activities during the first half of 2007, in addition to reviewing the effects of CWT’s past activities.

Meanwhile, CWT officials say it is getting commitments from its members to continue their support for the program in 2008. In June, the CWT Program Committee voted to renew the program in 2008 to maintain the current 10 cent assessment level. Current membership in CWT includes cooperatives and farmers producing 69.1 percent of the nation’s milk supply.

“Not a single cooperative that has been part of CWT this year has notified me that they won’t be part of the program in 2008,” said Jerry Kozak, president and CEO of the National Milk Producers Federation, which manages CWT. Even with the record high farm prices of this summer, “producers recognize that we will need CWT in the future to help stabilize prices,” he added.

Earlier this year, CWT’s fourth herd retirement program removed 53,000 cows, representing 1 billion pounds of milk production. In the first half of 2007, CWT’s export assistance program facilitated the sale of 930 million pounds (milk equivalent) of butter, milkfat and cheese. CWT has also raised its target price benchmarks from \$14 to \$16 per HW.

AGP rejects second takeover bid

An investor group pursuing a hostile

takeover bid of Ag Processing Inc. has made a second bid for the Omaha, Neb.-based soybean processing co-op, upping its offer from \$850 million to \$910 million. But AGP's board has again rejected the unsolicited offer from Ag Processors Alliance (APA) LLC.

"Contrary to APA's representations, our members have overwhelmingly expressed support for the AGP board's decision in rejecting this hostile takeover attempt," Mike Maranell, AGP's senior vice president for corporate and member relations, said in response to the offer. "In fact, AGP members' strong and consistent message to the board of directors has been that their company — a valuable piece of the cooperative system — is not for sale."

AGP is the world's largest cooperative soybean processor, a vegetable oil refiner, and a participant in the biofuels industry. AGP is owned by 203 local and six regional co-ops representing 250,000 farmers in 16 states.

Green Power EMC now serves 1.6 million Georgia households

Georgia's first renewable energy program, Green Power Electric Membership Corporation (EMC), recently welcomed Okefenokee REMC, in Nahunta, Ga., as its newest member, bringing to 36 the total number of participating electric cooperatives throughout Georgia. This adds another 33,000 consumers to Green Power EMC, a nonprofit cooperative founded in 2001 that offers green energy to more than 1.6 million Georgia households.

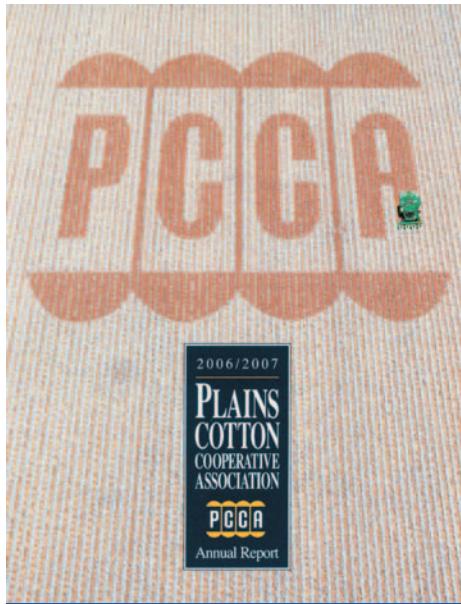
"Based on the resources available to us, Georgia ranks among the top five in the nation, from a cooperative standpoint, in terms of renewable energy programs," says Green Power President/CEO Michael Whiteside. Landfill gas, poultry litter and low-impact hydro projects are keys to Green Power EMC's success, he notes. "And we continue to look for other resources."

Green Power EMC plans to

purchase 20 megawatts of electricity from the first poultry litter-to-energy operation in Georgia. The electricity will be provided by Earth Resources Inc., which is constructing a chicken litter-to-electricity plant near Carnesville, about 70 miles northeast of Atlanta. Green Power EMC also operates Sun Power for Schools, the first statewide school program to showcase the benefits of solar energy.

PCCA to pay members \$25.7 million

Cash payments of \$25.7 million to members were announced during the 54th annual stockholders meeting of Plains Cotton Cooperative Association (PCCA) in Lubbock, Texas. The



PCCA's latest annual report.

payments consist of \$12.1 million in cash dividends, \$4.8 million in stock retirements and \$8.8 million in retirement of per-unit capital retains.

"Fiscal 2007 was another very successful year, with record performance in several areas," reported PCCA President and CEO Wally Darneille. "Although drought hurt cotton production prospects in several areas, we still reported net margins of \$20.5 million from ongoing operations."

Among the year's highlights were

record direct export sales, record net margins in the Marketing Division, record cotton receipts from PCCA members in Taylor, Texas, Northern Oklahoma and Kansas, and a record number of textile mill customers.

"The combination of successful marketing efforts, a third consecutive record year in our TELMARK subsidiary and some extraordinary gains led to record net margins of \$5.6 million in the Marketing Division," Darneille said. PCCA's Pool Divisions reported combined net margins of almost \$14 million.

PCCA's Warehouse Divisions reported good earnings despite intense drought in portions of Texas and Oklahoma that resulted in lower yields on irrigated land and a significant number of abandoned dry-land acres. However, thanks to bumper crops in northern Oklahoma and Kansas, the Oklahoma Cotton Cooperative Association warehouse facilities received the third largest crop in the division's history, with earnings of \$3.7 million.

Adverse weather resulted in a smaller than average crop in the rolling plains area of Texas, but the Rolling Plains Cooperative Compress facility reported earnings of \$2.1 million.

Fiscal 2007 was a challenging year for PCCA's Textile Division as it continued the transition to increased production of value-added fabric styles while facing price pressures from denim imports. The division reported a net allocable loss of \$2.6 million at year-end, but working capital increased \$3.5 million, to \$31.4 million, and cash flow from operations made a \$1.4 million turnaround.

Walnut growers may sue Diamond over payments

A group of California walnut growers have hired a Modesto attorney to press claims that Diamond Foods Inc. has paid them millions of dollars below market prices for their crop. Diamond converted from a cooperative in 2005.

According to a report in the *Stockton Record*, the Growers Committee for a

Fair Price from Diamond estimates Diamond underpaid growers \$23 million for 2005 walnuts and \$29 million for 2006 walnuts. That's about 8 cents per pound less for their 2005 crop and 10 cents a pound less for the 2006 crop. The newspaper quotes some of the unhappy growers as saying they believe the company is underpaying them to pay for expensive advertising for its Emerald nut line.

Sam Keiper, Diamond vice president of corporate affairs, told the *Record* that the claims are unfounded and that the growers pursuing the lawsuit represent a small minority of the company's growers. Other published reports indicate that the company is for sale.

NCGA to help detect organic food fraud

The National Cooperative Grocers Association (NCGA) is partnering with Hanover Co-op Food Stores, PCC Natural Markets and Unified Grocers on a pilot program exploring the implementation of the organic industry's first system-wide, retailer-based organic fraud detection and prevention program.

As part of this initiative, NCGA has



contracted with the nonprofit International Organic Accreditation Service (IOAS) to determine appropriate methods retailers can use to limit the incidence of fraudulently traded organic products and to increase the chances of early detection when it takes place within the retail supply chain.

"Our program will not change how organic products are certified," says Robynn Shrader, CEO of NCGA, a



The new Sterlena Pride Dairy Cooperative has struck a deal to purchase the former Sterling Milk Co. dairy plant in Wauseon, Ohio, which it plans to reopen in November. Transferring with the plant is a local celebrity: this 14-foot high, fiberglass Holstein named Sterlena. There were fears that the faux cow, which often makes guest appearances at county fairs and parades, might be put out to pasture during the ownership shuffle. But the co-op has assured the community: "She's staying put." Now if only they can find a feed ration that will improve her milk average.

Photo courtesy the Toledo Blade

business services cooperative for 110 U.S. consumer-owned food co-ops. "Rather, we're seeking to add a very critical safety checkpoint in the supply chain that will empower retailers and provide peace of mind for organic customers."

IOAS will conduct testing measures with NCGA grocers and suppliers over the coming months. Based on the pilot's findings, a recommended retailer-based fraud prevention program will be developed, which will be offered not only to NCGA's members, but all organic retailers nationwide and worldwide as early as mid-2008.

In another area, NCGA is calling on its member co-ops' suppliers and vendors nationwide to raise funds for family farmers who produce organic crops in the Upper Midwest and were impacted by the floods that devastated portions of the area in August. NCGA

will match the first \$50,000 raised for family farmers. For more information, visit: www.sowtheseedsfund.org.



Small and minority producer co-ops receive USDA grants

Acting Agriculture Secretary Chuck Conner has announced the awarding of recipients in seven states for \$1.2 million through the Small Minority Producer Grant program. "The grants will help small, minority producers develop and market new products," Conner said. "USDA is providing technical assistance for projects ranging from renewable energy development to livestock production."

For example, Heritage Farm Cooperative in Auburn, Wash., will receive \$150,000 for technical assistance to produce sunflower oil seeds and non-ester renewable fuel and animal feed. In Rapid City, S.D., the InterTribal Bison

Co-op Hall of Fame picks five "heroic" inductees



Five cooperative business leaders will be recognized at the annual Cooperative Hall of Fame dinner and induction ceremony at Washington's National Press Club on April 30, an event that annually draws a standing-room-only crowd.

The Hall of Fame, the cooperative community's highest honor, recognizes those who have made "heroic" contributions to cooperative enterprise. "The profiles of these individuals reflect lifetimes of achievement as business and community leaders, public policy advisors, innovators, and advocates for cooperative development, both here and around the world," says Elizabeth Bailey, executive director of the Cooperative Development Foundation, which administers the Hall of Fame.

The 2008 inductees are:

Gary Hanman — Hanman retired in 2005 as president and CEO of Dairy Farmers of America. His career in co-op dairy marketing spanned 42 years and involved many leadership positions. He is credited with the visionary leadership that brought about the merger of four diverse cooperatives to create DFA in 1998. Today, DFA is the nation's largest dairy cooperative, representing more than 20,000 dairy farmers and marketing more than one-third of the nation's milk supply.

Terry Lewis — Vice President for Cooperative Development with NCB, Lewis is an expert on cooperative law, with a deep belief in cooperatives. She has been a passionate advocate for co-op housing as the best model for affordable home ownership. With her legal and tax expertise, Lewis has devoted her career to helping shape public policy related to cooperative housing development and has been a key player in efforts to protect cooperative housing from unfavorable tax treatment.

Douglas D. Sims — Sims retired as CEO of CoBank in 2006, where he played a prominent role in helping the Farm Credit System (FCS) survive the downturn in the farm economy in the early 1980s. Sims is also credited with playing a key role in the subsequent reorganization of the FCS, including the creation of CoBank in 1989. Sims devoted his career to promoting the cooperative form of enterprise in the national and international arena and to encouraging co-op leaders to embrace change.

Walden Swanson and Kate Sumberg — Swanson and Sumberg are respected for their vision, innovation and dynamic leadership as business consultants to the global cooperative community. Their influence extends across co-op sectors, with their most extensive work being with food co-ops. Among their many accomplishments was the creation of CoopMetrics, a financial benchmarking and data warehouse services cooperative. Its mission is to empower cooperatives and community development organizations through the use of technology and management best practices. ■

Cooperative will use a \$175,000 technical assistance grant to help 57 tribes understand the dynamics and best practices in formulating improvement protocols in the bison industry.

Small Minority Producer Grants are provided to cooperatives or associations of cooperatives to assist small minority producers with 75 percent minority memberships and/or governing boards. Funding of individual recipients will be contingent upon their meeting the conditions of the grant agreement. For a list of recipients and more information on this and other USDA Rural Development programs, visit: www.rurdev.usda.gov.

Dakota Beef buys Kansas co-op

Hurt by drought and grain storage problems, Quinter, Kansas-based Midwest Cooperative members have voted overwhelmingly to sell their operations to Dakota Beef, the nation's biggest organic beef producer. The Hays, Kan., *Daily News* reports that co-op members voted 300 to 23 to sell the cooperative's 12 elevators to Dakota Beef, which has an organic beef processing plant in Howard, S.D.

Midwest Manager Rob Thompson told the *Daily News* he was a bit surprised by the overwhelming vote, and said people turned out from throughout the cooperative's trade area. In addition to Quinter, the co-op has elevators in Collyer, Park, Grainfield, WaKeeney, Ogallah, Voda, Bogue, Hill City, Morland, Penokee and Studley. The \$7.6 million price is on target with an appraisal required by CoBank, the co-op's lender.

POET, DOE in agreement for cellulosic ethanol project

POET, formerly known as Broin, and the U.S. Department of Energy (DOE) have signed a cooperative agreement for a commercial cellulosic ethanol project in Emmetsburg, Iowa. The agreement finalizes the first phase of a DOE award that was announced in February and will govern all aspects of the project, leading up to construction. ■

Harvest the wind

continued from page 8

production tax credits, in most cases they would need to form an LLC subsidiary. "For a lot of co-op boards, it is a struggle when they have to wrestle with broadening their business model — and rightfully so; they should struggle with it. This is something totally different than adding grain storage or a fertilizer department."

Be prepared to negotiate some bumps in the road, says Arends. "You will probably have some rocky roads to travel — you always do in any industry, especially a new one. So far, though, Minwind has been doing what it is supposed to."

Looking back on the past seven years, Willers says: "It's been a lot work, but it has also been a fun community project. We have had fantastic community support and have benefited from community leaders and board members who are truly visionary."

But does all that wind ever create problems for Minnesota farmers?

"Sure, but we can laugh now when the wind breaks off our corn, because at least we are making some money from the wind." ■

Driving Development in the Delta

continued from page 25

organizing as a model for outreach. This, and the legendary abilities of such co-op luminaries as Burkett and Smith, has attracted many allies to their work.

For example, they are working with Alcorn State University's Co-op Extension Small Farm Development Center to help producers complete a marketing plan to increase production at a local processing facility. They are collaborating with the Mississippi Development Authority Energy Division and USDA on constructing a 20-unit housing cooperative in Holmes County.

They are also working with a faith-based nonprofit, Saint Margaret's Nursing Home, to develop an elder-care workers' co-op in New Orleans' Lower Ninth Ward. The goal is to provide top-quality cleaning, laundry and food services to the low-income elderly who live there, and also to help the neighborhood.

MAC and the Mississippi Center for Cooperatives continue to inspire and assist rural Mississippians seeking to improve their own lives and those of others, in the deepest traditions of cooperative enterprise. Even in the face of the severest challenges, the vision has held steady.

By uniting as farm families to create cooperatives, then by joining those co-ops into associations, they have built the capacity to make a difference on a regional scale. In so doing, they have positioned themselves to become powerful catalysts for change. ■

Spreading Seeds of Success

continued from page 27

In 1975, Alabama Farmers Co-op bought Bonnie Plant Farm. Business grew rapidly through the 1980s as Bonnie Plant Farm added more greenhouses and plant-delivering trucks.

The next generation steps up

"As mass market retailers began to expand into the home garden trade by opening garden centers, we suddenly saw an opportunity to increase sales at an even greater pace," Stan Cope, another grandson of Livingston and Bonnie Paulk, remembered a few years later.

To prepare for what was to be tremendous growth in the 1990s, Bonnie Plant Farm increased its distribution stations in other states, hired more salesmen and constructed more greenhouses. By 2005, the company counted 35 stations in 25 states. Its 293 route salespeople delivered its vegetable and flower plants to more than 8,000 accounts nationwide. Agriculture's cyclical nature, however, soon took a turn for the worse. In 2006, AFC and its members faced a year-long drought, low yields, rising interest rates, high input prices and increasing pessimism about the prospects for a farmer-friendly Farm Bill in the next Congress.

A disappointed Paulk would report to members that AFC had experienced its "worst financial performance in several years." Even thriving Bonnie Plant Farm felt the hardships of 2006. Despite record sales that year, the division ended up earning less than in 2005, hit hard by growing expenses for supplies, raw material costs, propane and fuel.

Paulk vowed that "a financial turnaround must be job one for us in 2007." By spring, the recovery was taking place.

Hope for the future

"Our members are incredibly loyal to this system, and their unwavering support has enabled us to have the best start we've seen for a long time," Paulk reported this spring. "All divisions have exceeded expectations through five months of operations and are on a pace to produce record earnings once again for [fiscal year] 2007."

The downturn of 2006 would not have surprised Paulk's grandmother, Bonnie, nor would it have discouraged her. In her 1940 history of Bonnie Plant Farms, she recalled the troubles that Southern farmers as well as her family's business had seen, and explained her outlook.

"Although we have not made any money, we have made a good living," she noted. "Our expenses are heavy, increasing as business grows... We started out just as everyone does, with the idea of making some money. We are still living and working in hopes."

It's not likely that Bonnie Paulk foresaw the heights that Bonnie Plant Farm would reach. But 67 years later, her determination to survive still rings true, not just for her grandson and the Alabama company he manages, but for rural cooperatives the nation over. ■



From the archives of Rural Cooperatives and its predecessor magazines

50 Years Ago...

From the November and December 1957 issues of News for Farmer Cooperatives

Co-op Field Days Promote Better Farming

Field Days at Potato City in August this year offered many attractions. Each year Pennsylvania Cooperative Potato Growers Inc., Harrisburg, sponsors the event — an excellent example of co-op help toward better farming. Field Day guests toured the experimental plots of the co-op's potato research farm, where 5,200 varieties of potatoes grow under the direction of Dr. E. L. Nixon.



For the first time, the association arranged a complete demonstration of harvesting methods and improved machinery and equipment for Pennsylvania growers and growers from neighboring states.

The machinery included new harvesters, pickup loaders — both self-propelled and tractor drawn — as well as tractor mounted diggers and loaders.

For its soil demonstration, the co-op showed how to lay out a diversion terrace, used to make experimental plots productive and manageable. Plant food experiments stressed a practical farmer approach to fertilizing small grains and potatoes.

Some of the women competed in a recipe contest while teenagers took part in a fishing contest. Naval Air Station from Niagara Falls brought in helicopters for an air show.

Candy Shows Build Member Interest (cover article)

Things came to a boil in the Pacific Northwest this fall at the Homemaker Holiday Candy Shows. Three sponsors backed these gatherings: Homemakers Department, Pacific Supply Cooperative, Walla Walla, Wash., with Mrs. Helen King at the helm; local associates affiliated with the regional; and Western Beet Sugar Producers Inc. of Salt Lake City, Utah, with Mrs. Ruby Garrett (officially known as Nancy Haven, home economist), representing it and demonstrating the candy making.

These adult leader training shows, with a lot of advance

planning by Mrs. King and help from the local women, drew large crowds to the co-ops. The good effect of these free shows spread. Some people in the audience took what they learned about beet-sugar candy making back to other local groups. These might be 4-H Clubs, home economics clubs, churches, Boy Scouts, Camp Fire Girls, women's clubs, school teachers, Granges, Farm Bureaus and others.



The operation required detailed planning, and Mrs. King had it all down on suggestion sheets she sent out to chairmen of the local women's groups. These sheets made up an Advance Kit and included suggestions for preparation of the show with ideas to make it of the greatest possible value to the local co-op.

Response to these shows was excellent. In most cases, two or three times more people came than were expected, and local managers were enthusiastic about the results. Walt Steele, manager of the Polk County Farmers Co-op, Rickreall, Ore., wanted to know, "How soon can you send another Homemaker Show our way? This was the easiest promotional meeting we ever did. Everything was outlined in the advance kit and was ready for us, so everyone knew just what to do."

"No more could have been done, than was done, for me or my company, Western Beet Sugar Producers Inc., to make a successful joint program," Nancy Haven said,

30 Years Ago...

From the November and December 1977 issues of Farmer Cooperatives

More Women's Involvement Resulting From Jobs Well Done

"If the house were on fire, a woman would not stop to say: 'This part is my husband's — I'll go over and put out the fire in my area.' No, she would pitch in to save what they could together. And that's why women should be involved in our cooperatives: To pitch in together for the survival of the family farm."

This analogy was given by Dorothy Shaner, farm wife from Kingfisher, Okla., who participated in the National Institute on Cooperative Education (NICE) to get ideas to take back to the cooperative that serves the Shaner family farm.



Cooperative leaders wanting to encourage involvement of women in cooperatives attended a special workshop on the subject. Tools and techniques for developing leadership were offered to the 35 men and women enrolled.

If any of the rural women felt remotely unnecessary to cooperatives, the thought was

quickly dispelled at the various sessions on women's involvement. Women have the opportunity to be an influential force in cooperatives, particularly those 60,000 to 75,000 who are wives of managers and directors, said Owen Halberg, AIC president, keynoter of the women's workshop.

Some formal women's activities date back to 1916, reported Joann Fulcher of Farmland Industries. But there is some way to go, she added. We are still struggling with many managers, members and women who are unwilling to admit women to total participation. Fulcher ended her talk by quoting a woman co-op member who said: "We don't want to run things. We just want to help make things run."

Most Iowa Co-ops Have Revolvement Plans

Nearly two-thirds of the respondents in a survey of Iowa cooperatives have some kind of revolving fund, reports the Iowa Institute of Cooperation. The Institute conducted a survey as part of its work on proposed state legislation dealing with equity retirements. The Institute sent out 450 survey forms to members and received 172 completed returns, a reasonably accurate rate of return.

Among the more important questions was one asking for the dollar amounts paid under its revolvement plan to estates of retired members. Some 135 respondents answered affirmatively, reporting that they paid a total of \$1,427,768. Following are some other highlights of the survey:

- Sixty-one percent of those responding have some kind of revolving fund.
- Only 39 percent have a program for converting allocations into preferred stock.

- Fifty-two percent have a chronological (specific year) requirement plan for equity.
- But only 26 percent use a retirement plan based on a percentage of all outstanding stock.
- Affirmative responses to the question of revolving member equity during the past three years ranged from 54 to 58 percent.
- A whopping 79 percent of the respondents have programs that pay out estates of deceased members, with 65 percent picking up all estates.

- Only 15 percent have plans providing for the redemption of stock of retired persons.
- Only 15 percent redeem the equity of persons who move away from the area.
- Sixty-two percent said they paid out 20 percent of the co-op's earnings in cash, while 40 percent paid more or less than 20 percent.

10 Years Ago...

From the November/December 1997 issue of Rural Cooperatives

Merger Creates Europe's Largest Dairy Co-op

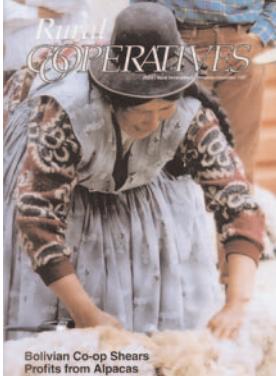
Two Dutch dairy cooperatives in northeast Holland have merged to form the largest dairy cooperative in that country and in the European Community. Friesland Dairy Foods and Coberco merged to form De Zeven Provincien. The co-op represents 15,000 dairy farmers and has an 11-billion-pound milk supply. Its manufacturing subsidiary, Friesland Coberco Dairy Foods, has annual sales volume of \$5.4 billion. Both cooperative partners specialize in cheese manufacturing.



Unlike its American counterparts, which draw their financing through members, Friesland allows non-member investment and earnings from its operations.

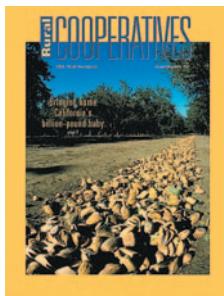
Volume Climbs at Southern States

For the fourth consecutive year, Southern States Cooperative set a sales record in 1997 with more than \$1.21 billion in sales. Southern States, headquartered in Richmond, Va., operates in the Mid-Atlantic states. Sales volume was up from \$1.12 billion in 1996. Net savings of \$27.5 million was just short of the fiscal 1996 record.



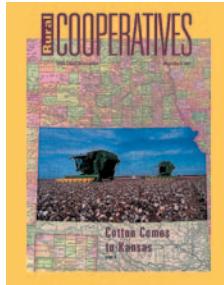
The cooperative added \$14.4 million to its net worth, which reached \$177.1 million after revolving all 1995 patronage refund allocations. Since 1988, Southern States' total assets have grown from \$273 million to \$409 million, net worth from \$118 million to \$177 million, and working capital from \$72 million to \$109 million.

CF Industries, Southern States' interregional cooperative fertilizer source, paid a record \$13.1 million in patronage, up from \$12.7 million in 1996. Half was paid in cash and the other half as preferred stock. Southern States' board voted to pay patronage refunds totaling \$17.5 million. ■



2007 Article Index

Information appearing in *Rural Cooperatives* magazine during calendar year 2007 has been indexed to help you find past articles. Articles are indexed by issue and page. Back issues can be found on-line at: www.rurdev.usda.gov/rbs/pub/openmag.htm. For hard copies, e-mail: dan.campbell@wdc.usda.gov.



TITLE FEATURES

Above the Belt

- Cotton Belt shifts northward into state known for fields of grain March/April 4
 AGP rejects hostile takeover bid Sept./Oct. 35
 Almond roots run deep through human history Jan./Feb. 12

Back from the Brink

- Support of members, employees and suppliers vital to Southern States' turn-around effort Sept./Oct. 10
 Billion-Pound Baby
 'High-octane' almond orchards fuel sustained growth as Blue Diamond expands global market reach Jan./Feb. 8
 Biorefinery projects awarded \$385 million May/June 17

Branding for Success

- Trademark law, product certifications important to many co-ops March/April 12
 California growers champion Tuscan olives July/Aug. 28
 Certifying a reputation: Virginia-Carolinas growers brand their peanuts March/April 14

Changing of the Guard

- Market changes lead to higher level of farmer collaboration in England Jan./Feb. 4
 CHS: Make ethanol-blended fuel mandatory May/June 20
 Co-op Hall of Fame picks five "heroic" inductees Nov./Dec. 38
 Co-op people weather the storm July/Aug. 8
 Co-op salvages hope amid ruins July/Aug. 6
 CooperationWorks! draws top names to training program Sept./Oct. 27
 CooperationWorks! goes co-op May/June 11
 Co-ops Focus Collective Action

- Business structure still helping producers address power disparity in the marketplace May/June 33
 Core business principles guide Heartland Sept./Oct. 33
 Corn Condos for Sale

- Growth and innovation key to Heartland Co-op's success Sept./Oct. 32
 Emerald Pastures

- Ireland's dairy co-ops adopt range of strategies in response to changing markets Sept./Oct. 14
 Energy leadership development urgently needed Nov./Dec. 7
 Evolving technology may generate profit from biodiesel glycerin glut July/Aug. 30
 Exporting the U.S. cooperative model May/June 32
 Farm Bill supports cellulosic ethanol development May/June 18
 Farmer co-ops report record net income March/April 25
 Farmer co-ops set net income record; gross business volume hits \$126.5 billion Sept./Oct. 9
 FCS boots lending to young, beginning and small producers July/Aug. 35
 Financing co-op energy opportunities Jan./Feb. 20
 From Forest to Ocean

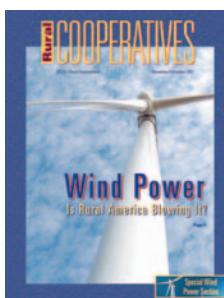
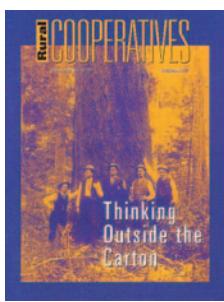
- Diverse Washington co-ops show business model flexibility May/June 24
 Global 300 list reveals world's largest co-ops Jan./Feb. 28
 Global 300 selection criteria Jan./Feb. 30
 Harvesting the Prairie Wind

- Minnesota farmers structure wind business
 to keep more energy dollars close to home Nov./Dec. 4
 Housecleaning co-op members see income, benefits rise March/April 24
 Iowa Wind Farms Supported by USDA Renewable Energy Program Nov./Dec. 9
 Kentucky co-op feeds the Queen July/Aug. 23
 King's Ransom

- Ohio tree farmers' co-op seeks better markets, prices for 'King of Pines' Jan./Feb. 14
 Mica, Abernathy, Ditsch named top co-op communicators July/Aug. 29
 Minnesota Farmers Structure Wind Business to keep more dollars at home Nov./Dec. 5

- Miracle on the Bayou
 How one Louisiana parish is resurfacing from disaster March/April 20
 Mississippi produce co-op supplying casino Jan./Feb. 33
 Missouri credit union collaborates with value-added cooperative March/April 19
 NCFC: Commission recommendation would destroy farmers' ability to compete May/June 13
 Outside the Box

- Community-owned department stores an alternative to big-box chain stores Jan./Feb. 22
 Predevelopment work nets higher royalties for landowners Nov./Dec. 14



Producer ownership of ethanol a major plus for rural America	May/June 19	Future of Local Food	July/Aug. 22
Record-breaking sales in '06 to help Sunkist weather severe crop freeze	March/April 11	New Hybrid on Great Plains	
Renewable fuels industry ripe with opportunity for co-ops	Jan./Feb. 18	Increased consumer access, education paying off for local producers & shoppers	Sept./Oct. 26
Renewable x 2		Nurturing Caregiver Co-ops	
Corn Plus taps wind power to operate ethanol plant	Nov./Dec. 17	NCDF helps finance critical need for in-home rural healthcare services	Jan./Feb. 32
Rolling with the Punches			
Flue-Cured Tobacco Growers Co-op developing own products	Jan./Feb. 26		
SDWG identity-preserved grains add value	Sept./Oct. 21		
Shouldering the risk			
Strategy for risk management essential to moving cellulosic technology forward	May/June 14		
SkillsUSA prepares students for trade, technical careers	March/April 30		
Small Advantages			
Are small co-ops still viable in Ireland's dairy pastures?	Nov./Dec. 28		
Small farmers learn ways at conference to add value	July/Aug. 36		
Spreading Seeds of Success			
Alabama Farmers Co-op and its Bonnie Plant Farm play big role in strengthening the rural South	Nov./Dec. 26		
Stepping up to the plate			
Basin Electric's multi-pronged strategy to reduce greenhouse gases	Nov./Dec. 20		
The Big Chill			
Sunkist growers scramble to save fruit; co-op adjusts marketing strategy	March/April 8		
Thinking Outside the Carton			
100 years ago, Fruit Growers Supply founders made investments that still bolster citrus industry	Sept./Oct. 4		
Turning Over a New Leaf			
End of tobacco program, rising foreign competition thrust burley co-op into new role	Jan./Feb. 24		
Upstate Niagara Goes Uptown			
Team effort provides financing for modern, \$35 million dairy plant	July/Aug. 12		
USDA awards \$415,000 for early-warning broadcasts	May/June 39		
USDA programs support co-op development, expansion	May/June 26		
USDA providing \$210 million for rural broadband, telecom	Jan./Feb. 37		
When a Co-op Dies			
Long-time gin closes doors, one more casualty of California's shrinking cotton industry	May/June 4		
Where Credit is Due			
Russian farm credit officials study American finance model	May/June 30		
Wind Power Energizing Rural America			
Increasing share of U.S. wind energy sector held by community and producer groups	Nov./Dec. 10		
Winds of Change			
China looks to co-ops to help farmers duplicate success of industry	March/April 22		
Wired for Success			
Broadband co-op helping southern Virginia attract new information technology jobs	July/Aug. 18		
WIREC Conference set for March 4-6 in D.C.	Nov./Dec. 19		
Wisconsin farmers, small businesses benefiting from new health-care co-ops	May/June 28		
Worker-owned businesses share ideas during North Carolina conference	Sept./Oct. 31		
Worker-owned/ESOPs can help preserve business in rural America	Sept./Oct. 28		
ZEN-NOH: Japan's federated ag co-op	Jan./Feb. 31		
Magazine Departments			
CO-OP DEVELOPMENT ACTION			
Cooperation, c'est magnifique!			
U.S. co-op centers take a closer look at Quebec's phenomenal co-op growth	March/April 18		
Driving Development in the Delta			
Mississippi co-op organizations promote self-help recovery efforts following hurricanes	Nov./Dec. 25		
Forging family-to-family food chains	May/June 8		
Future of Local Food			
New Hybrid on Great Plains			
Increased consumer access, education paying off for local producers & shoppers			
Nurturing Caregiver Co-ops			
NCDF helps finance critical need for in-home rural healthcare services			
COMMENTARY			
Co-op structure aids longevity			Sept./Oct. 2
Co-ops Fueling Green Revolution			Nov./Dec. 2
Co-op's role in renewable energy economy			July/Aug. 2
Heed the Call			May/June 2
Senate vote sends strong message supporting farmer cooperatives			March/April 2
Working for the long term			Jan./Feb. 2
Focus On...			
High Desert Milk Inc.			
Burley, Idaho			July/Aug. 17
In the Spotlight			
Dixie Watts Reaves			
Associate Professor, Agricultural and Applied Economics, Virginia Tech			March/April 16
Jim Erickson			
Southern States Cooperative, Richmond, Va.			July/Aug. 15
Welch's Daniel Dillon swaps crops, but stays in agriculture			Jan./Feb. 17
Legal Corner			
Antitrust report a wake-up call for co-ops to defend marketing rights			May/June 12
Management Tip			
Four high-priority responsibilities for effective co-op management			May/June 23
Newsline			
Web based calculator helps control animal-housing energy			Jan./Feb. 34
TFC: Animal health 'in the bag'			
PCCA's Darneille to lead International Cotton Association			
Record sales year for Accelerated Genetics			
Humboldt Creamery launches organic milk			
Florida's Natural introduces organic juice products			
Pilgrim's Pride to pay \$1.1 billion for Gold Kist			
GROWMARK to market BMI soy-based biodiesel			
Iowa, Minn., co-op elevators merging			
Lukiewski to lead Welch's			
ITC finds dumping injuries U.S. lemon juice industry			
Cass-Clay, AMPI propose merger			March/April 26
USDA announces \$90 million in electric loans in 10 states			
Indiana co-ops to merge			
LOL sales top \$7.3 billion			
MMPA returns \$1.6 million in cash patronage to members			
Southern States board elects new chairman			
Missouri Farmers Union marks centennial anniversary			
Grain co-op specialist Charles Hunley dies			
NMPF seeks data on ethanol impact on dairy economics			
USDA marketing grants available			
American Sugar Refining acquires Redpath Sugar			
UK merger would create world's largest consumer co-op			
CoBank's record earnings support \$193 million patronage			May/June 36
UPG forms joint venture to operate potato dehydrator			
AMPI earnings bounce back			
Montana ranchers form Organic Producers Co-op			
Alto Dairy to close liquid feed division			
Sunsweet marks 90th anniversary			
DFA to idle Lovington, N.M., cheese plant			
Co-op master's degree application deadline			
Foremost has \$12.5 million loss; closes juice plant; hires COO			

CHS distributes record \$258 million to members

MMPA elects new president

NH to host conference

CountryMark expanding refinery; rebranding Midwest

fuel stations July/Aug. 33

NW pear shippers to combine marketing

GROWMARK to acquire energy firm; teams with FB on risk management

Co-op development class

AMPI acquires Cass-Clay

Study: ethanol not main factor in higher food costs

A&N Electric Co-op to acquire Delmarva Power

FCS boost lending to young, beginning and small producers

CHS building three pipeline terminals

Small farmers learn ways at conference to add value

AGP rejects hostile takeover bid Sept./Oct. 35

Retiring dairy farmers concerned by production costs, succession issues

DFA closing Calif. cheese plant

Oregon electric co-op to pursue ocean wave power

New book examines utility co-op's struggles

Cooperative Foundation grants supporting co-op education

CHS acquires DDG business; sells Brazilian soybean shares

NMPF partners with USDA on animal identification system

Organic Valley distribution center to boost economy of southwest Wisc.

Green Plains Renewable Energy, Great Lakes Co-op to merge

East Iowa Central to merge with Members Mutual Oil

Minnesota Soybean Processors in agreement with Bunge

Tillamook selects new CEO

Co-op strategies to be focus at Farmer Co-op Conference

GROWMARK sets sales, income records Nov./Dec. 35

Study: CWT boosted milk checks 75 cents per HW

AGP rejects second takeover bid

Green Power EMC now serves 1.6 million Georgia households

PCCA to pay members \$25.7 million

Walnut growers to sue Diamond over payments

NCGA to help detect organic food fraud

Utility Co-op Connection

Advanced technology enables Illinois electric co-op to tap into wind power Nov./Dec. 23

Georgia alternative energy plant to be fueled by wood

& poultry waste July/Aug. 24

The Right Thing to Do

Electric co-ops pursuing cutting-edge renewable energy, conservation projects Sept./Oct. 23

Value-Added Corner

Olive Oil Council expanding markets with help of VAPG July/Aug. 26

South Dakota: great faces, great places — and great

value-added opportunities Sept./Oct. 20

USDA providing \$22.7 million in Value-Added

Producer Grants Nov./Dec. 34

SUBJECTS

Banking/Farm Credit

FCS boots lending to young, beginning and small producers .. July/Aug. 35

Where Credit is Due

Russian farm credit officials study American finance model May/June 30

Financing co-op energy opportunities Jan./Feb. 20

Broadband

USDA providing \$210 million for rural broadband, telecom ... Jan./Feb. 37

Wired for Success

Broadband co-op helping southern Virginia attract new information technology jobs July/Aug. 18

Communications

Four high-priority responsibilities for effective co-op management May/June 23

Mica, Abernathy, Ditsch named top co-op communicators July/Aug. 29

Consumer Co-ops

Forging family-to-family food chains May/June 8

Future of Local Food July/Aug. 22

Outside the Box

Community-owned department stores an alternative to big-box chain stores Jan./Feb. 22

Co-op Development

Cooperation, c'est magnifique!

U.S. co-op centers take a closer look at Quebec's phenomenal co-op growth March/April 18

CooperationWorks! goes co-op May/June 11

Driving Development in the Delta

Mississippi co-op organizations promote self-help recovery efforts following hurricanes Nov./Dec. 25

Exporting the U.S. cooperative model May/June 32

Forging family-to-family food chains May/June 8 From Forest to Ocean

Diverse Washington co-ops show business model flexibility May/June 24

Future of Local Food July/Aug. 22

Kentucky co-op feeds the Queen July/Aug. 23

King's Ransom

Ohio tree farmers seek better prices for King of Pines Jan./Feb. 14

Miracle on the Bayou

How one Louisiana parish is resurfacing from disaster .. March/April 20

New Hybrid on Great Plains

Increased consumer access, education paying off for local producers & shoppers Sept./Oct. 26

Nurturing Caregiver Co-ops

NCDF helps finance critical need for in-home rural healthcare services Jan./Feb. 32

Wired for Success

Broadband co-op helping southern Virginia attract new information technology jobs July/Aug. 18

Co-op Principles/Advantages

Co-ops Focus Collective Action

Business structure still helping producers address power disparity in the marketplace May/June 33

Core business principles guide Heartland Sept./Oct. 33

Emerald Pastures

Ireland's dairy co-ops adopt range of strategies in response to changing markets Sept./Oct. 14

Thinking Outside the Carton

100 years ago, Fruit Growers Supply founders made investments that still bolster citrus industry Sept./Oct. 4

Cotton

Above the Belt

Cotton Belt shifts northward into state known for fields of grain March/April 4

When a Co-op Dies

Long-time gin closes doors, one more casualty of California's shrinking cotton industry May/June 4

Credit Unions

Cooperation, c'est magnifique!

U.S. co-op centers take a closer look at Quebec's phenomenal co-op growth March/April 18

Missouri credit union collaborates with value-added cooperative March/April 19

Dairy

Emerald Pastures

Ireland's dairy co-ops adopt range of strategies in response to changing markets Sept./Oct. 14

High Desert Milk Inc.

Burley, Idaho July/Aug. 17

Small Advantages

Are small co-ops still viable in Ireland's dairy pastures? ... Nov./Dec. 28

Upstate Niagara Goes Uptown

Team effort provides financing for modern, \$35 million dairy plant	July/Aug. 12
Disaster Recovery	
Co-op people weather the storm	July/Aug. 8
Co-op salvages hope amid ruins	July/Aug. 6
Driving Development in the Delta	
Mississippi co-op organizations promote self-help recovery efforts following hurricanes	Nov./Dec. 25
Miracle on the Bayou	
How one Louisiana parish is resurfacing from disaster ..	March/April 20
The Big Chill	
Sunkist growers scramble to save fruit; co-op adjusts marketing strategy	March/April 8
USDA awards \$415,000 for early-warning broadcasts	May/June 39
Education	
Dixie Watts Reaves	
Associate Professor, Agricultural and Applied Economics, Virginia Tech	March/April 16
Iowa Wind Farms Supported by USDA Renewable Energy Program	Nov./Dec. 9
SkillsUSA prepares students for trade, technical careers	March/April 30
Farm Supply, Agronomy & Service	
Back from the Brink	
Support of members, employees and suppliers vital to Southern States' turn-around effort	Sept./Oct. 10
Co-op salvages hope amid ruins	July/Aug. 6
Farmer co-ops report record net income	March/April 25
Farmer co-ops set net income record; gross business volume hits \$126.5 billion	Sept./Oct. 9
Jim Erickson	
Southern States Cooperative, Richmond, Va.	July/Aug. 15
Spreading Seeds of Success	
Alabama Farmers Co-op and its Bonnie Plant Farm play big role in strengthening the rural South	Nov./Dec. 26
Thinking Outside the Carton	
100 years ago, Fruit Growers Supply founders made investments that still bolster citrus industry	Sept./Oct. 4
ZEN-NOH: Japan's federated ag co-op	Jan./Feb. 31
Fishery	
From Forest to Ocean	
Diverse Washington co-ops show business model flexibility	May/June 24
Miracle on the Bayou	
How one Louisiana parish is resurfacing from disaster ..	March/April 20
Forestry	
From Forest to Ocean	
Diverse Washington co-ops show business model flexibility	May/June 24
King's Ransom	
Ohio tree farmers' co-op seeks better markets, prices for 'King of Pines'	Jan./Feb. 14
Fruits, Nuts, Vegetables	
Almond roots run deep through human history	Jan./Feb. 12
Billion-Pound Baby	
'High-octane' almond orchards fuel sustained growth as Blue Diamond expands global market reach	Jan./Feb. 8
California growers champion Tuscan olives	July/Aug. 28
Certifying a reputation: Virginia-Carolinas growers brand their peanuts	March/April 14
Mississippi produce co-op supplying casino	Jan./Feb. 33
Olive Oil Council expanding markets with help of VAPG	July/Aug. 26
Record-breaking sales in '06 to help Sunkist weather severe crop freeze	March/April 11
The Big Chill	
Sunkist growers scramble to save fruit; co-op adjusts marketing strategy	March/April 8
Thinking Outside the Carton	
100 years ago, Fruit Growers Supply founders made investments that still bolster citrus industry	Sept./Oct. 4
Welch's Daniel Dillon swaps crops, but stays in agriculture	Jan./Feb. 17
Grains & Oilseeds	
Co-op salvages hope amid ruins	July/Aug. 6
Core business principles guide Heartland	Sept./Oct. 33
Corn Condos for Sale	
Growth and innovation key to Heartland Co-op's success ..	Sept./Oct. 32
Farmer co-ops set net income record; gross business volume hits \$126.5 billion	Sept./Oct. 9
Producer ownership of ethanol a major plus for rural America	May/June 19
SDWG identity-preserved grains add value	Sept./Oct. 21
Health & Home Care	
Housecleaning co-op members see income, benefits rise ..	March/April 24
Nurturing Caregiver Co-ops	
NCDF helps finance critical need for in-home rural healthcare services	Jan./Feb. 32
Wisconsin farmers, small businesses benefiting from new health-care co-ops	May/June 28
International	
Changing of the Guard	
Market changes lead to higher level of farmer collaboration in England	Jan./Feb. 4
Cooperation, c'est magnifique!	
U.S. co-op centers take a closer look at Quebec's phenomenal co-op growth	March/April 18
Emerald Pastures	
Ireland's dairy co-ops adopt range of strategies in response to changing markets	Sept./Oct. 14
Exporting the U.S. cooperative model	May/June 32
Global 300 list reveals world's largest co-ops	Jan./Feb. 28
Global 300 selection criteria	Jan./Feb. 30
Small Advantages	
Are small co-ops still viable in Ireland's dairy pastures? ..	Nov./Dec. 28
Where Credit is Due	
Russian farm credit officials study American model	May/June 30
Winds of Change	
China looks to co-ops to help farmers duplicate success of industry	March/April 22
ZEN-NOH: Japan's federated ag co-op	Jan./Feb. 31
Legislative and Legal	
Antitrust report a wake-up call for co-ops to defend marketing rights	May/June 12
Farm Bill supports cellulosic ethanol development	May/June 18
NCFC: Commission recommendation would destroy farmers' ability to compete	May/June 13
Livestock & Poultry	
Kentucky co-op feeds the Queen	July/Aug. 23
South Dakota: great faces, great places — and great value-added opportunities	Sept./Oct. 20
Marketing	
Above the Belt	
Cotton Belt shifts northward into state known for fields of grain	March/April 4
Billion-Pound Baby	
'High-octane' almond orchards fuel sustained growth as Blue Diamond expands global market reach	Jan./Feb. 8
Branding for Success	
Trademark law, product certifications important to many co-ops	March/April 12
Certifying a reputation: Virginia-Carolinas growers brand their peanuts	March/April 14
Changing of the Guard	
Market changes lead to higher level of farmer	

collaboration in England	Jan./Feb. 4	glycerin glut	July/Aug. 30
Farmer co-ops report record net income	March/April 25	South Dakota: great faces, great places – and great value-added opportunities	Sept./Oct. 20
Financing co-op energy opportunities	Jan./Feb. 20		
Mississippi produce co-op supplying casino	Jan./Feb. 33		
Olive Oil Council expanding markets with help of VAPG	July/Aug. 26		
Record-breaking sales in '06 to help Sunkist weather severe crop freeze	March/April 11		
Renewable fuels industry rife with opportunity for co-ops	Jan./Feb. 18		
Small Advantages			
Are small co-ops still viable in Ireland's dairy pastures?	Nov./Dec. 28		
Spreading Seeds of Success			
Alabama Farmers Co-op and its Bonnie Plant Farm play big role in strengthening the rural South	Nov./Dec. 26		
When a Co-op Dies			
Long-time gin closes doors, one more casualty of California's shrinking cotton industry	May/June 4		
Member Relations			
Four high-priority responsibilities for effective co-op management	May/June 23		
Mergers			
Corn Condos for Sale			
Growth and innovation key to Heartland's success	Sept./Oct. 32		
Minority Co-ops			
Driving Development in the Delta			
Mississippi co-op organizations promote self-help recovery efforts following hurricanes	Nov./Dec. 25		
Housecleaning co-op members see income, benefits rise	March/April 24		
Miracle on the Bayou			
How one Louisiana parish is resurfacing from disaster	March/April 20		
Mississippi produce co-op supplying casino	Jan./Feb. 33		
Renewable Energy			
Advanced technology enables Illinois electric co-op to tap into wind power	Nov./Dec. 23		
Biorefinery projects awarded \$385 million	May/June 17		
CHS: Make ethanol-blended fuel mandatory	May/June 20		
Energy leadership development urgently needed	Nov./Dec. 7		
Evolving technology may generate profit from biodiesel glycerin glut	July/Aug. 30		
Farm Bill supports cellulosic ethanol development	May/June 18		
Georgia alternative energy plant to be fueled by wood & poultry waste	July/Aug. 24		
Harvesting the Prairie Wind			
Minnesota farmers structure wind business to keep more energy dollars close to home	Nov./Dec. 4		
Iowa Wind Farms Supported by USDA Renewable Energy Program	Nov./Dec. 9		
Predevelopment work nets higher royalties for landowners	Nov./Dec. 14		
Producer ownership of ethanol a major plus for rural America	May/June 19		
Renewable fuels industry rife with opportunity for co-ops	Jan./Feb. 18		
Renewable x 2			
Corn Plus taps wind power to operate ethanol plant	Nov./Dec. 17		
Shouldering the risk			
Strategy for risk management essential to moving cellulosic technology forward	May/June 14		
Stepping up to the plate			
Basin Electric's multi-pronged strategy to reduce greenhouse gases	Nov./Dec. 20		
The Right Thing to Do			
Electric co-ops pursuing cutting-edge renewable energy, conservation projects	Sept./Oct. 23		
Wind Power Energizing Rural America			
Increasing share of U.S. wind energy sector held by community and producer groups	Nov./Dec. 10		
WIREC Conference set for March 4-6 in D.C.	Nov./Dec. 19		
Soybeans			
AGP rejects hostile takeover bid	Sept./Oct. 35		
Evolving technology may generate profit from biodiesel			
glycerin glut	July/Aug. 30		
South Dakota: great faces, great places – and great value-added opportunities	Sept./Oct. 20		
Statistics			
Farmer co-ops report record net income	March/April 25		
Farmer co-ops set net income record; gross business volume hits \$126.5 billion	Sept./Oct. 9		
Global 300 list reveals world's largest co-ops	Jan./Feb. 28		
Global 300 selection criteria	Jan./Feb. 30		
Tobacco			
Rolling with the Punches			
Flue-Cured Tobacco Growers Co-op developing own products	Jan./Feb. 26		
Turning Over a New Leaf			
End of tobacco program, rising foreign competition thrust burley co-op into new role	Jan./Feb. 24		
Trade			
Winds of Change			
China looks to co-ops to help farmers duplicate success of industry	March/April 22		
Workers-Owned Co-ops			
Worker-owned businesses share ideas during North Carolina conference	Sept./Oct. 31		
Worker-owned/ESOPs can help preserve business in rural America	Sept./Oct. 28		
AUTHORS			
Borst, Alan			
Wind Power Energizing Rural America			
Increasing share of U.S. wind energy sector held by community and producer groups	Nov./Dec. 10		
Briscoe, Robert			
Small Advantages			
Are small co-ops still viable in Ireland's dairy pastures?	Nov./Dec. 28		
Campbell, Dan			
Billion-Pound Baby			
'High-octane' almond orchards fuel sustained growth as Blue Diamond expands global market reach	Jan./Feb. 8		
Co-op structure aids longevity	Sept./Oct. 2		
Harvesting the Prairie Wind			
Minnesota farmers structure wind business to keep more energy dollars close to home	Nov./Dec. 4		
Heed the Call	May/June 2		
Predevelopment work nets higher royalties for landowners	Nov./Dec. 14		
Producer ownership of ethanol a major plus for rural America	May/June 19		
Renewable x 2			
Corn Plus taps wind power to operate ethanol plant	Nov./Dec. 17		
Thinking Outside the Carton			
100 years ago, Fruit Growers Supply founders made investments that still bolster citrus industry	Sept./Oct. 4		
Wired for Success			
Broadband co-op helping southern Virginia attract new information technology jobs	July/Aug. 18		
Chesnick, David			
Global 300 list reveals world's largest co-ops	Jan./Feb. 28		
Crooks, Anthony			
Evolving technology may generate profit from biodiesel glycerin glut	July/Aug. 30		
Shouldering the risk			
Strategy for risk management essential to moving cellulosic technology forward	May/June 14		

Daugherty, Patricia Welch's Daniel Dillon swaps crops, but stays in agriculture Jan./Feb. 17	Miller, Patricia The Big Chill Sunkist growers scramble to save fruit; co-op adjusts marketing strategy March/April 8
Dunn, John Winds of Change China looks to co-ops to help farmers duplicate success of industry March/April 22	Peltier, Jean-Mari Senate vote sends strong message supporting farmer cooperatives March/April 2
English, Glenn Co-ops Fueling Green Revolution Nov./Dec. 2	Reynolds, Bruce Branding for Success Trademark law, product certifications important to many co-ops March/April 12
Erickson, Jim Back from the Brink Support of members, employees and suppliers vital to Southern States' turn-around effort Sept./Oct. 10	Worker-owned/ESOPs can help preserve business in rural America Sept./Oct. 28
Frederick, Donald A. Antitrust report a wake-up call for co-ops to defend marketing rights May/June 12	Schofer, Dan From Forest to Ocean Diverse Washington co-ops show business model flexibility May/June 24
Gray, Thomas W. Co-ops Focus Collective Action Business structure still helping producers address power disparity in the marketplace May/June 33	South Dakota: great faces, great places — and great value-added opportunities Sept./Oct. 20
Johanns, Mike Co-op's role in renewable energy economy July/Aug. 2	Thompson, Stephen Above the Belt Cotton Belt shifts northward into state known for fields of grain March/April 4
Letson, Perry Where Credit is Due Russian farm credit officials study American finance model May/June 30	Co-op people weather the storm July/Aug. 8
Liebrand, Carolyn Global 300 list reveals world's largest co-ops Jan./Feb. 28	Co-op salvages hope amid ruins July/Aug. 6
Livingston, Jane Driving Development in the Delta Mississippi co-op organizations promote self-help recovery efforts following hurricanes Nov./Dec. 25	Corn Condos for Sale Growth and innovation key to Heartland Co-op's success Sept./Oct. 32
Future of Local Food July/Aug. 22	Stepping up to the plate Basin Electric's multi-pronged strategy to reduce greenhouse gases Nov./Dec. 20
Miracle on the Bayou How one Louisiana parish is resurfacing from disaster March/April 20	Todd, Anne Housecleaning co-op members see income, benefits rise March/April 24
New Hybrid on Great Plains Increased consumer access, education paying off for local producers & shoppers Sept./Oct. 26	Olive Oil Council expanding markets with help of VAPG July/Aug. 26
Outside the Box Community-owned department stores an alternative to big-box chain stores Jan./Feb. 22	SkillsUSA prepares students for trade, technical careers March/April 30
Lykins, Ashley King's Ransom Ohio tree farmers' co-op seeks better markets, prices for 'King of Pines' Jan./Feb. 14	Turning Over a New Leaf End of tobacco program, rising foreign competition thrust burley co-op into new role Jan./Feb. 24
Mayberry, Anne Advanced technology enables Illinois electric co-op to tap into wind power Nov./Dec. 23	Wisconsin farmers, small businesses benefiting from new health-care co-ops May/June 28
Georgia alternative energy plant to be fueled by wood & poultry waste July/Aug. 24	Wadsworth, James Four high-priority responsibilities for effective co-op management May/June 23
The Right Thing to Do Electric co-ops pursuing cutting-edge renewable energy, conservation projects Sept./Oct. 23	Ward, Michael Emerald Pastures Ireland's dairy co-ops adopt range of strategies in response to changing markets Sept./Oct. 14
Merlo, Catherine When a Co-op Dies Long-time gin closes doors, one more casualty of California's shrinking cotton industry May/June 4	Small Advantages Are small co-ops still viable in Ireland's dairy pastures? Nov./Dec. 28
Lee-Woolf, Charlotte Changing of the Guard Market changes lead to higher level of farmer collaboration in England Jan./Feb. 4	



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