

ENERGY



N E T W O R K

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Nebraska Community Energy Management Program

During the past three years, eleven Nebraska communities and one neighborhood have decided to tap the economic development potential of energy efficiency by becoming partners with the Energy Office in an effort called the Nebraska Community Energy Management Program.

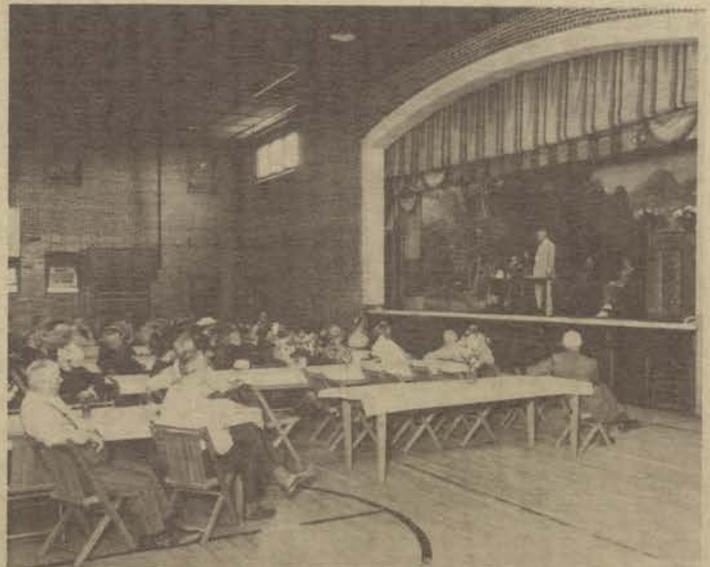
The Community Energy Management Program gives communities a chance to make strategic choices about their future through a local planning and action process.

After setting broad goals for the community's

future, participants evaluate their energy use and establish goals and action plans which maintain or improve the local economy's health. Energy efficiency and local decision-making are the focus of the program, which is financed with federal and oil overcharge funds.

In 1985, Verdigre and the Omaha Benson neighborhood joined Burwell, Fremont, Allen, South Sioux City, Wood River, Schuyler, West Point, Ravenna, Bayard, and Lexington on the roll of energy management communities. Here are highlights from those communities.

Photographs used throughout this edition have been supplied by the Nebraska Historical Society. They illustrate the vitality and variety of Nebraska's cities and towns.



The Townsend Club, Grand Island Nebraska, 1934

BAYARD

Bayard was one of the first communities to participate in the Community Energy Management Program. As such, the planning and implementation process differs from other communities. No definite goals were set by the townspeople, however, citizens achieved the following:

● The town firehall was weatherized as a demonstration project.

An open house was held to illustrate the benefits of commercial energy conservation.

● The Energy Office Gas Saver Van tested public and county fleet vehicles at the firehall open house.

● A part-time energy coordinator was hired to promote energy conservation and the Weatherize America campaign. ☉



Main Street, Bayard Nebraska, 1900

LEXINGTON

Seventy-five people attended the Lexington Town Meeting on October 7, 1983. At that time, citizens chose to work on the following goals:

Goal 1: Conduct Audits on 50% of Homes and Businesses

● Lexington planned to achieve this goal by January 1, 1989, and targeted improvements on 50% of those buildings audited as a secondary goal. An Energy Bank was capitalized with \$103,600 in support funds from the Solar Energy and Energy Conservation Bank, and in November, an additional \$200,000 in Community Development Block Grants was added. Audits are underway, and over 60 homeowners have used Energy Bank financing to

make energy efficiency home improvements.

Goal 2: Reduce Summer 1984 Electric Peak by 5%

● A load management system aided by the rental of an infrared camera to target problem areas led to a decrease in electrical peak of 8.5%. The project saved the Lexington community \$52,000 and provided excellent educational and promotional benefits to make citizens aware of their energy consumption.

Goal 3: Introduce Energy Education Materials into the Community by May 31, 1984:

● An energy education program was presented to junior and senior high students and teachers were provided with energy education

materials. In November, over 1200 4th, 5th, and 6th graders from Dawson County attended an Energy Expo.

● Energy related literature was distributed at booths at the July 4th celebration and at the

Dawson County Fair.

● An Energy Resource Shelf was added to the Lexington Public Library, and media coverage of the event was provided by local radio stations and the newspaper. ☉



Post Card, Lexington, Nebraska, circa 1910

FREMONT

Using information gathered at a Town Meeting in September, 1983, the Fremont Energy Commission was formed and selected the following goals:

Goal 1: Introduce Energy Education Materials in the Community by June 30, 1984

● A public information campaign, including an Energy Fair and distribution of information on energy management,

was implemented. Local radio and press coverage was used to increase public awareness and support.

Goal 2: Conduct Audits on 25% of Local Homes by January 1, 1989

● 50% of all homes audited are targeted for energy efficiency improvements. An Energy Bank was established and capitalized with \$83,000 from the Solar Energy and Energy Conservation Bank. Later, \$220,000 in Community Development Block Grant monies was added. Audits are underway, and the investment in the Energy Bank is projected to save \$49,000 annually. This represents a 15.9% return on investment for Fremont.

Other Efficiency Achievements:

● Improvements in the

city street lighting system will save \$6,166 annually.

● Improvements to the city's operational facilities will save \$15,670 annually.

● The purchase of a more efficient city bus and work on the city transit system will save \$4,100 annually.

● Additional efficiency improvements on city schools will save \$22,000 annually.

● The installation of a computerized energy management system at the Dodge County Memorial Hospital will save \$45,000 annually.

A total of \$619,241 was invested in Fremont. Annual dollar savings stand at \$120,000, and represent a 19.3% rate of return for the community. ☉



Fremont House, Fremont, Nebraska, circa 1880

SOUTH SIOUX CITY

The Town Meeting was held during October 1984; citizens of South Sioux City selected four goals to work towards:

Goal 1: Weatherize 20% of the 83 Rental Units Receiving Energy Audits

● 30% of the units audited installed some type of energy efficiency improvement. Dollar savings are projected at \$4,604 annually, for a 24.3% rate of return.

● An Energy Bank was established to finance energy improvements. Seventeen rental units were weatherized using Energy Bank financing; five units were financed by the owners.

Goal 2: Establish Financing for Residential Energy Improvements

● The Energy Bank was created and \$58,000 in funding obtained from the Department of Housing and Urban Development. Preliminary results show an annual dollar savings of \$16,720 for this investment, which translates into an 11.8% return on investment.

Goal 3: Audit Local Business and Commercial Establishments

● Fifty commercial energy audits were completed by the Nebraska Public Power District and Iowa Public Service.

● Some businesses have installed recommended improvements on their own; efforts will continue to secure financing for other improvements.

Goal 4: Energy Education

● An Energy Fair was held in April, 1985. Twenty-one vendors displayed energy products and provided information.

● Energy-related books were purchased for the resource sections of the public and high school libraries.

A total of \$192,175 was invested in South Sioux City to receive an 11.1% rate of return. The projects completed will save the townspeople \$21,000 annually and should pay for themselves in 7.3 years. ☉



South Sioux City Canning Center. Depression Era Work Project, 1934

ALLEN

The townspeople of Allen held their Town Energy Meeting in December, 1984, and chose four goals. Those and the resulting actions are:

Goal 1: Weatherize The Firehall

● Three new insulated doors were installed on the firetruck stalls. On the area of the firehall which houses the rescue vehicles and the community meeting place, two insulated overhead doors

were installed as well as ceiling and sidewall insulation.

● The annual energy savings expected from the increased R-value of the doors (R1.5 to R7.35) is equivalent to 800 gallons of propane. The energy savings from the ceiling and wall insulation is expected to be equivalent to 1,330 gallons of propane. Altogether, energy cost savings to the community is estimated at \$1,300 annually.

Goal 2: Establish a Mini-Bus Service

● Funding is being sought to purchase a bus for an appropriate scale mass transit system. The goal of the mini-bus service is to reduce energy consumed for transportation.

Goal 3: Continue Energy Improvements in the Allen School

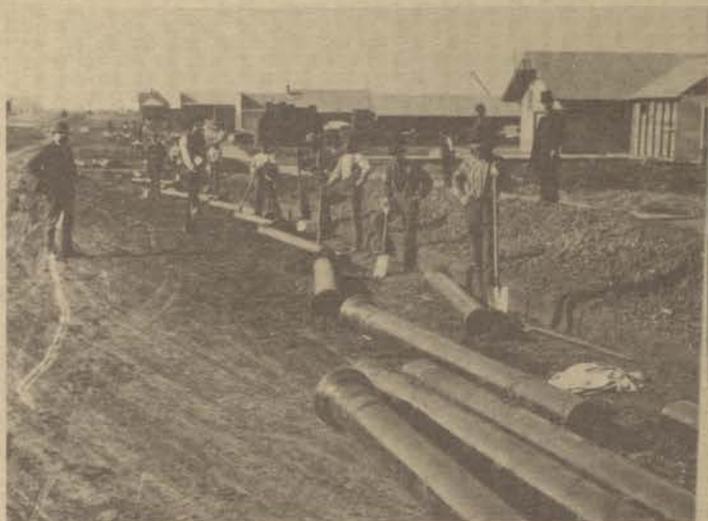
● A cooperative effort between the Allen Energy

Committee and the Allen School Board resulted in Allen receiving \$14,540 from the Energy Office School Weatherization Program to finance energy efficiency improvements.

Goal 4: Weatherize Homes

● To date 37 homes have had energy audits 20 homeowners have used Energy Bank financing to weatherize their homes, and six homeowners have made energy efficiency improvements on their own. If all the Energy Bank money is expended, energy savings could reach 875 billion BTUs.

A total of \$60,300 was invested in Allen to realize an annual energy savings of \$5,950. This represents a 9.8% rate of return. The investment will pay for itself in about seven years. ☉



Laying Water Pipes, Dixon County, circa 1900

RAVENNA

The Ravenna community held a Town Meeting on January 5, 1985 and selected three goals:

Goal 1: Support the Trees for Energy Program

● The Ravenna Trees for Energy Program received trees to plant during the spring. Resources for this project included assistance from the Omaha World-Herald and the Game and Parks Commission. Contact was also made with the State Forester and the Natural Resource District to provide additional help for the ongoing effort.

Goal 2: Weatherize Homes

● Two hundred of

Ravenna's homes were scheduled for walk-through energy efficiency audits. Auditors were trained, and the possibility of creating a local energy bank was explored.

Goal 3: Create Small Service Business Development Project

● This project is designed to create new jobs and industry in Ravenna. An initial marketing survey was completed and contacts were made with local service agencies. Plans for additional marketing research have been developed.

A total of \$34,476 was invested in Ravenna to receive an annual energy savings of \$1,300. This represents a 4% rate of return on the investment. ☉



Hinman's Livery & Hack Line, Ravenna, Nebraska, circa 1880

SCHUYLER

On January 19, 1985, Schuyler held its Town Meeting. The citizens chose seven goals, four of which involve the Nebraska Energy Office:

Goal 1: Demonstrate the Potential of Solar Energy

● A series of six workshops were

scheduled to demonstrate the benefits and potential of solar energy.

Goal 2: Weatherize 25% of Local Homes

● 159 free home energy audits have been requested or completed, and \$88,000 in available Energy Bank financing and local funds have been disbursed for home energy efficiency improvements.

Goal 3: Commercial/Industrial Weatherization

● 12 Schuyler businesses requested energy audits; the Schuyler Energy Commission is exploring financing for energy efficiency improvements in local businesses.

Goal 4: Recycling to Save Energy

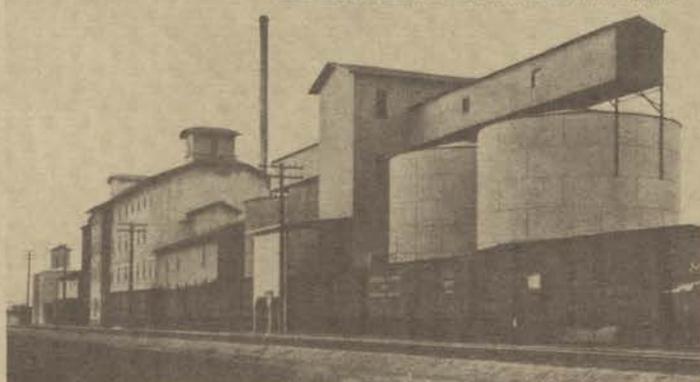
● Schuyler received an \$11,000 grant from the Department of Environmental Control for compaction and recycling equipment at the city landfill.

● Schuyler's investments in energy efficiency will generate \$299,485 in income for the area over the next 10 years, and result in the creation or

retention of the equivalent of five full-time jobs lasting one year during 1985. \$34,080 was invested from the Energy Bank and \$10,436 invested in school weatherization.

A total of \$179,356 was invested in Schuyler to receive an annual energy savings of \$19,600. This represents a 10.9% rate of return for the city of Schuyler. ☉

WELLS ABBOTT NIEMAN MILL NORTH SIDE, SCHUYLER, NEB.



Wells Abbot Nieman Mill, Schuyler, Nebraska, 1920

WOOD RIVER

The Wood River Town Meeting was held on January 26, 1985. At this meeting, the townspeople chose five goals to work toward:

Goal 1: Promote Water Conservation Through Water Use Education

● Research was conducted on water rates and consumption for the area. Information on saving water was made available and further publicity planned for the spring.

Goal 2: Promote Home Weatherization

● The Wood River Energy Bank received \$21,500 to finance home energy efficiency improvements. Citizens were trained to perform simple energy audits, and an Open House held in October encouraged homeowner participation in the program.

Goal 3: Develop a Wood Coop

● The Town Energy Committee conducted preliminary research and interested parties are planning a market analysis for promoting the use of wood energy.

Goal 4: Develop a Community Windbreak

● Trees were planted at the Good Samaritan Center for a

demonstration project. Information is available on wind breaks and plans for additional planting are underway.

Goal 5: Promote Public Building Energy Management

● The Nebraska Public Power District has completed audits of the Fire Hall, City Hall, Sewer Plant, Library, City Garages, and Police Station. The results were presented to the City Council and a Public Building Weatherization Plan will be developed.

A total of \$31,320 was invested in Wood River to receive an annual energy savings of \$2,100. This represents a 7% rate of return for Wood River. ☺



Wood River, Nebraska, Photo by Solomon Butcher, circa 1890

WEST POINT

West Point's Town Meeting was held on March 19, 1985. Citizens have been working on three goals chosen during the Town Meeting:

Goal 1: Energy Awareness through Education

● Energy education and an energy expo have been provided to 597 Cuming County 4th, 5th, and 6th graders. Their teachers have been given tips on integrating energy economics into the school curriculum.

● An Energy Fair was held October 24, 1985, at the city auditorium. Two hundred and fifty individuals attended 24 different seminars on energy efficiency.

● The Cuming County Fair featured a booth with

energy related literature provided by the West Point Energy Committee. An estimated 200-300 people picked up literature and discussed energy concerns.

● The Cuming County Cooperative Extension Service now offers an energy workshop for homemakers as well as 4-H awards for energy related speeches and projects.

Goal 2: Recycling to Save Energy

● Collection of paper materials and oil for recycling continues at the city landfill, with sales of the material collected expected to save 500 million BTUs for West Point. The material sold earned \$357 thus far and saved the \$200-300 cost of burial.

Goal 3: Utility Rate Input

● The "Beat the Peak"

public information campaign and installation of additional load control switches on home air conditioners reduced the summer peak in 1985 by 777 kilowatts per hour, a reduction which should save the city about \$35,000 in wholesale power costs.

A total of \$60,702 was invested in West Point to receive an annual savings of \$12,700. West Point has realized a 21% rate of return on its investment. ☺



First National Bank, West Point, Nebraska, 1880

BURWELL

The townspeople of Burwell held their Town Meeting on March 19, 1985, and chose four goals for the community. The results:

Goal 1: Explore Alternative Sources of Energy

- The Burwell Public Housing Authority building

was chosen for a Solar Demonstration Project. Three solar panels have been installed on the building and the next step is an open house to demonstrate the benefits of solar energy. The project is expected to save \$55 annually.

Goal 2: Weatherize 75% of Local Households

- Burwell townspeople set a goal to audit 75% of the

homes in the county. Home energy auditors were hired and trained. Audits are in progress and an Energy Bank was granted \$21,250 to finance home energy efficiency improvements. Local citizens can now schedule an audit and make use of Energy Bank financing to complete audit recommendations. Energy Bank investments are projected to save Burwell over \$2,500 annually.

Goal 3: Energy Education

- An energy column in the local newspaper covers energy issues. Interested individuals are invited to submit their articles and opinions for publication.

- The Burwell Energy Committee sponsored an energy booth at the Garfield County Fair in 1985. They distributed

information concerning energy audits and other activities, and followed up on requests for more information.

Goal 4: Reduce Energy Costs in Public Buildings

- Insulating draperies were hung in the Burwell Senior Home, ceiling fans were installed, and the shower heads were retrofitted with new water-saving models. These improvements are expected to save \$400 annually.

A total of \$119,196, was invested in Burwell to receive an annual energy savings of \$10,967 for a 9% return on the community's investment. ☺



The Profitable Pork Special, Railroad Train at Burwell, Nebraska, October 8, 1929

VERDIGRE

The Jobs Saving Energy Program was born in Verdigre out of the Nebraska Department of Labor's Farmers in Transition Program. On April 2, 1985, the community held a Strategic Choices town meeting. The townspeople decided on the following goals:

Goal 1: Promote Existing Business

- The town firehall was weatherized to demonstrate mainstreet commercial conservation resources. The total cost of the project was \$16,991; energy cost savings are projected to pay for the efficiency improvements in 2.7 years.

- An application for funding of a commercial energy conservation project was prepared and approved for submission to the Department of Economic Development. Verdigre subsequently received a \$258,000 Community Development Block Grant targeted for energy conservation projects.

- A promotional brochure to encourage business investment and tourism has been produced.

Goal 2: Provide Flood Control/Hydroelectric Power via a Dam

- After careful consideration of the area and the opportunities available, the Energy Office and the townspeople concluded that this goal held little promise for the community.

Goal 3: Promote Food Processing and the Farm Economy

- Transportation costs can contribute up to half the cost of produce. So to capture the energy savings and keep income

in the community, a Farmers' Market was held and a contractor was hired to further assist the village in developing direct producer-to-consumer marketing systems. ☺



Pioneer Home and Family, Knox County, 1870s

BENSON

The Omaha Benson neighborhood held its Energy Meeting on April 27, 1985. Benson became the first urban-oriented Community Energy Management Program participant. Citizens selected four goals:

Goal 1: Promote Home Energy Efficiency Improvements

●The local energy committee, BERT (Benson Energy Resource Team), held an energy chautauqua on September 8, 1985. The event featured booths, lectures, financing information and hands-on demonstrations of energy efficiency home improvements.

●BERT incorporated in 1986, in preparation for establishment of a

revolving loan program to assist householders in financing energy efficiency home improvements.

Goal 2: Work with Utilities

●BERT plans to open channels of communication with local utilities to increase conservation efforts. The project awaits BERT's incorporation.

Goal 3: Resolve Transportation Concerns

●BERT contacted Omaha's Transportation Department with a list of traffic problems in the Benson neighborhood. City officials eventually adjusted traffic signals for more efficient pedestrian and motor traffic through Greater Benson's business district.

Goal 4: Promote Education about Trees

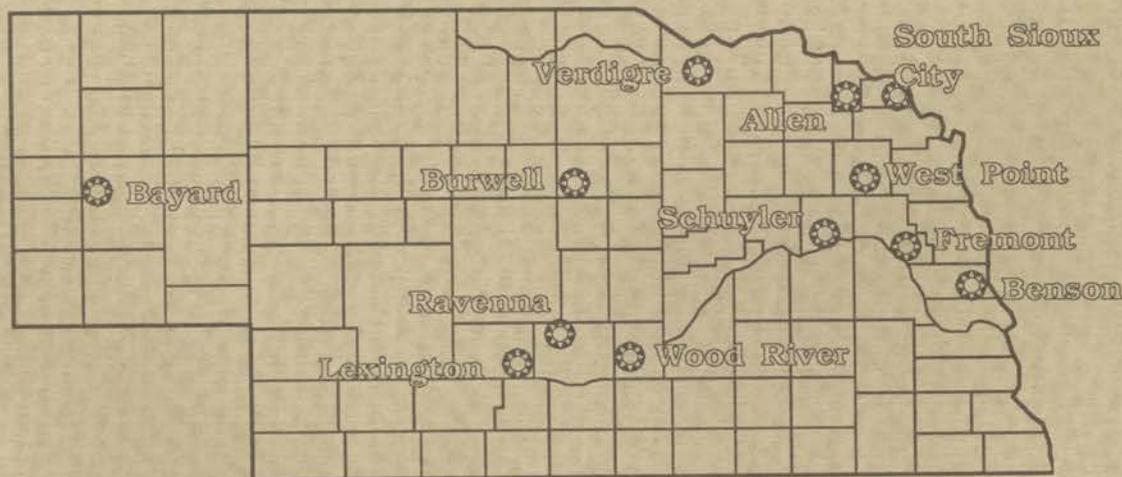
●The Benson Chautauqua featured a presentation on the "Plant Two Trees for Energy" project which explained the energy efficiency potential

available from appropriately planted trees; future presentations are planned. ●



Benson Transfer Company, about 1925

Nebraska Energy Management Program Communities



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