

\$350,000
Available for
Local Buildings
See Page 2

12 States and Maybe More....

Governors' Ethanol Coalition Takes Shape

The twelve-state Governors' Ethanol Coalition, of which Nebraska's Governor Ben Nelson is the chair, held its second meeting on November 5 in Minneapolis. Since being formed in September, three additional states — Montana, New Mexico and North Dakota — have joined the Coalition. Two other states, Texas and Arkansas have indicated a desire to join the Coalition.

Speaking on behalf of the Coalition, Governor Nelson said representatives from Colorado, Illinois, Indiana, Iowa, Minnesota, Missouri, Nebraska, South Dakota, Wisconsin and the three new states addressed the following items at the Minneapolis meeting:

- Adopted a resolution for consideration at the National Governors' Association meeting in Washington, D.C., in February, 1992, supporting legislation establishing a goal that at least five percent of the nation's motor fuel be derived from renewable biomass in the form of ethanol by the year 2000.
- Reviewed the *Replacement and Alternative Fuels Act*, a bill sponsored by U.S. Senator Jeffords of Vermont.

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\$19,000+ Saved in First Year...

Cogeneration Units A Winner in Omaha

Omaha's Jewish Community Center is realizing substantial energy savings from two cogeneration units installed in the facility last year. The equipment was purchased as part of a joint demonstration among the Center, Northern Natural Gas and the Energy Office.

Cogeneration produces electricity and other forms of useful energy — thermal or mechanical — for industrial, commercial, heating or cooling purposes through the sequential use of an energy source. Two Tecogen CM-60 cogeneration modules installed at the Center produce both electricity and useful heat from the same process, first by generating electricity and then recovering the heat from the engine. Instead of allowing waste heat to be lost it is used for other purposes.



Larry Malskeit, Project Director (center) and Bob Ralph, Service Supervisor both from Peoples' Natural Gas (right), discuss operation of two new cogeneration units with Dan Hurley (left) from Omaha Metropolitan Utilities District.

Cogeneration units are especially efficient when a facility has a high water heating load. The Center operates a health club, including two swimming pools, laundry facilities, food preparation and dining facilities and a 100-resident nursing home. A feasibility study had indicated that the cogeneration equipment could provide heat for domestic hot water, pool

See COGENERATION on Page 5

\$350,000 Available in '92...

School and Hospital Grants Will Reduce Energy Costs

From the Community Hospital in Chadron to public school buildings in Tecumseh, recent Institutional Conservation Program funds are being spent on energy conservation improvements. Grants are being used to install new boilers and chillers, energy control systems, replace motors, modify lighting, add insulation and storm windows and to find out ways to reduce energy costs and use. In 1991, a total of 19 different institutions — public and private schools and hospitals — received federal matching grants

totaling \$354,208 for 30 buildings. Over 83% of the funds will finance energy conservation building improvements.

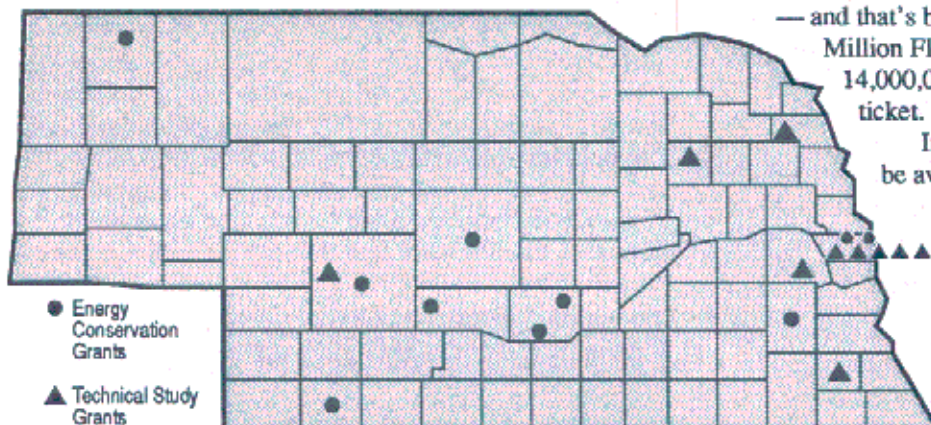
Better Chances of Winning Than a Lottery Ticket

During the 1980s these federal grant funds declined by approximately two-thirds, while the number of applications in some areas have increased and in other areas declined. For example, public primary and secondary schools rarely applied for federal grants until after 1986 because a nearly identical state-funded grant program offered better financial incentives — 80/20 matching grants. In 1986, the state grant program ended and was replaced with a zero percent loan program. As a result, some public school systems started applying for funding from this program.

Another aspect of the federal program — a requirement that a thorough energy audit be completed before any building improvements can be financed — also can cause extreme competitiveness in some years. But, in 1991, all of those applying received all or part of the funding requested

— and that's better than the most recent \$90+ Million Florida Lottery which had odds of 14,000,000:1 for holding a single winning ticket.

In 1992, approximately \$350,000 will be available for conducting energy analyses of buildings or making energy saving improvements in the buildings. About \$57,000 or 16% of that amount has been set aside for energy studies of buildings.



See GRANTS, on Page 5

Institutions Receiving Technical Study Grants In 1991

Institution Name	Location	Amount
Ashland-Greenwood Schools	Ashland	\$1,625
Battle Creek Public Schools	Battle Creek	\$4,260
Brownell-Talbot School	Omaha	\$2,250
Father Flanagan's Boys' Home	Omaha	\$15,236
Omaha Opportunities Industrial Center	Omaha	\$2,310
Pender Community Hospital	Pender	\$3,456
Roncalli High School	Omaha	\$4,399
Sutherland Public School District #55	Sutherland	\$2,000
Tecumseh Public Schools	Tecumseh	\$4,379
University of Nebraska at Omaha	Omaha	\$19,550

Institutions Receiving Energy Conservation Grants In 1991

Institution Name	Location	Amount
Blessed Sacrament School	Lincoln	\$1,585
Chadron Community Hospital	Chadron	\$87,749
Father Flanagan's Boys' Home	Omaha	\$79,676
Gothenburg Memorial Hospital	Gothenburg	\$11,735
Hall School, District #5	North Platte	\$10,845
Jennie M. Melham Memorial Medical Center	Broken Bow	\$10,030
Ravenna Public Schools, District #69	Ravenna	\$4,524
St. Cecilia's Cathedral School	Omaha	\$6,189
Trenton Public Schools	Trenton	\$3,450
University of Nebraska at Kearney	Kearney	\$78,960

Finished at Last...

Policy Council Recommendations Sent to Governor

The Nebraska Energy Policy Council completed its work on recommendations for the state's first comprehensive energy policy plan in November. Over 200 recommendations will be submitted to Governor Nelson for his consideration. The plan is the result of many hours of work by the 52 member council plus suggestions from hundreds of Nebraskans.

The Council took a broad look at the future of energy in Nebraska across many different sectors including Agriculture, Buildings, Education, Electricity, Fossil Fuels, Renewables, Transportation, Research and Waste. The Council attempted to identify important issues and directions which the state should examine. Each of the recommendations will require additional study and consideration prior to a decision on implementation.

Dozens of Recommendations

Notable recommendations include the formation of a state-developed energy building code, implementation of Home Energy Rating Systems of America™, coordination of an energy education action council, support for legislation forming a state propane commission and support for integrated resource planning by the state's electric utilities. The plan also supports the further development of renewable energy sources, alternate fuels such as ethanol, compressed natural gas and propane and the elimination of sales tax on energy efficient appliances.

At the final meeting of the Council in late October, Energy Office Director Bob Harris thanked the members for their many hours of service and congratulated them for



developing a road map for the direction of energy in the future. Harris commented, "Although not everyone is going to agree with all the recommendations made by the Council, this document is an important first step and will serve as a good foundation for our work in the future." Harris

particularly thanked Corrinne Pedersen for her leadership as chair of the Council.

Copies of the Council's recommendations are available by contacting Allison Meyer of the Energy Office.

Announced in 1990...

Projects in Lincoln & Curtis Move Ahead

Two oil overcharge-funded projects — a bike trail and school building weatherization — announced in 1990 have been approved by the U.S. Department of Energy and will be getting underway.

Commuter Bike Path is on Track

The City of Lincoln has received a grant to fund a portion of the city's new Downtown Lincoln Commuter Trail. The completed trail will connect the existing John Dietrich Trail to the north of Holdrege Street with the Billy Wolff Trail south of "J" Street to "Y" Street at Capitol Parkway and provide a connection along "J" Street to the east of Capitol Mall.

In addition to reducing vehicle/bicycle conflicts along popular commuter routes, the comprehensive trail system will encourage bicycling or walking as an energy-saving alternative to vehicle travel. The trail will provide routes for bicycle and foot travel to principal city centers, including both University campuses, downtown Lincoln Center, Lincoln High School, the State Capitol and State Office Buildings.

The Energy Office will provide \$96,000 in Exxon Oil Overcharge funds to finance construction of the main trunk extending from "J" Street to "Y" Street. Construction of this portion, which is the first of three phases, should be completed by next summer.

\$1/4 Million to NU at Curtis

The University of Nebraska will receive \$250,000 in Stripper Well Oil Overcharge funds to make energy efficiency improvements to campus buildings at the College of Technical Agriculture in Curtis.

Energy efficiency improvements have the potential to generate both cost and energy savings. Energy conservation improvements will be identified through energy audits conducted by licensed engineers. Both mechanical system and building envelope improvements will be eligible for funding providing that the estimated simple payback period on the initial investment is no longer than 15 years. Improvements funded under the 309 Task Force for Buildings and Renewal will not be eligible for additional funding.

This project is similar to the weatherization project underway on the University of Nebraska-Lincoln, University of Nebraska-Omaha and University of Nebraska Medical Center campuses. Ten projects totaling \$500,000 will be completed under that program. Post-improvement energy use will be measured at all four campuses to determine actual energy savings.

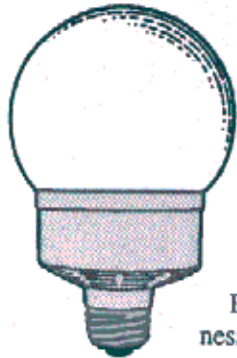
Lighting the Way to the Future...

RIGHTLight is Saving More than Energy

The state's two largest electric utilities, in partnership with the Energy Office, have launched a lighting efficiency project for some of the state's businesses. Commercial enterprises were targeted for this pilot project because their lighting use is considerably higher than that of residential users. And their savings — both dollars and energy — will also be higher.

When Does 14 = 60?

Under the Omaha Public Power District's "RIGHTLight" effort and a similar undertaking by Nebraska Public Power District, incandescent light bulbs are replaced with compact fluorescents which provide



the same amount of light, but need about one-quarter of the electricity to produce light. Each utility is offering four types of compact fluorescents ranging from 14 to 18-watts — the equivalent of 60 to 75-watt incandescent bulbs. Because of volume purchasing and a \$5 per bulb subsidy from the utilities and the Energy Office, the cost to the businesses to install the compact fluorescents range from \$5-\$8 per bulb. It is estimated

that over a period of a year, each bulb will save about \$6 in electricity costs. Thus, the cost of the bulb will be recovered in the first year of use. And, compact fluorescents usually last 10-12 times as long as the incandescents they replace.

The Dollar Savings Don't Stop There

Additional savings will result from reduced air conditioning use because compact fluorescents generate less heat than incandescent bulbs. From the utilities' vantage point, any reduction during the summer peak of electrical use is desirable since "peaking" power is the most expensive to produce. Many times, it's small energy savings like these reproduced in hundreds and thousands of locations which can result in forestalling the construction of new and costly electrical generation facilities.

Burned Out in Omaha

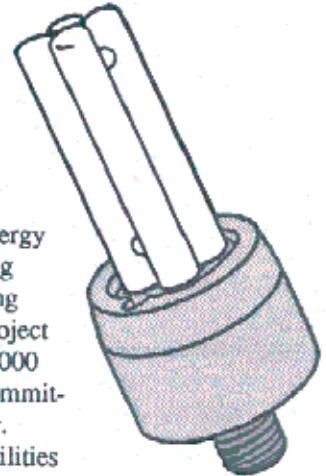
Each utility planned on selling about 8,000 bulbs during the year-long pilot phase of the project. However, the compact fluorescents proved far more popular than expected in Omaha Public Power District's 13-county service area. After just under two months, Omaha had exhausted its original supply of compact fluorescents. Currently, the

utility is examining options for continuing a reduced cost lighting project for businesses. Nebraska Public Power District has not yet begun its endeavor.

For more information about the compact fluorescent lighting projects operated by two utilities, contact Dean Mueller at Omaha Public Power District (402/536-4213) or Cliff Anderson at Nebraska Public Power District in Columbus (402/563-5200).

This joint effort is funded with \$40,000 in Exxon Oil Overcharge funds from the Energy Office and \$40,000 in matching funds from the two participating electric utilities. When this project was announced in 1990, \$250,000 in oil overcharge funds was committed to this multi-year endeavor.

It is expected that more utilities will become involved in the project. Contact Kirk Conger in the Energy Office regarding participation.



ETHANOL, Continued From Page 1

- Authorized a letter to the President and the Secretaries of Agriculture and Energy to inform them of the Coalition's creation and pledging to work cooperatively with the administration on ethanol-related issues.
- Approved a grant request to the U.S. Department of Energy for \$50,000 to fund the activities of the Coalition.
- Received a briefing from General Motors on the status of the development of ethanol-fueled cars.

Most representatives of the Coalition attended a day-long program, *Ethanol and Public Policy*, held at the Hubert H. Humphrey Institute of Public Affairs at the University of Minnesota the day before the Coalition's meeting.

First Meeting Held in Lincoln

At the first meeting of the Coalition in Lincoln in September, other governors were also tapped for key positions: Governor Jim Edgar of Illinois was selected Vice Chairman and Governors Branstad of Iowa, Romer of Colorado, Ashcroft of Missouri and Bayh of Indiana head the Policy, Research, Environment and Economics committees, respectively.

Issues discussed at the first meeting included gasoline pump labeling, the status of current congressional legislation and the importance of ensuring that motor vehicle fuels available for sale to the public be formulated to allow for blending with ethanol.

Up, Down and Why...

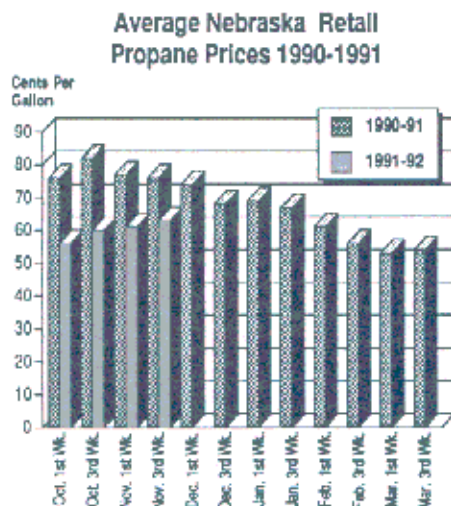
What's the Price of Propane?

For the second year, the Energy Office has received a \$2,000 grant from the Energy Information Administration (EIA) of the U.S. Department of Energy to monitor residential propane prices during the winter of 1991-92. This effort resulted from a lack of information about propane which became apparent after very high propane prices were recorded in December 1989-January 1990.

The Energy Office conducts a telephone survey of 31 propane dealers to obtain current retail prices on the first and third Mondays of each month from October through March. Summary information from the Nebraska residential price survey is available from Larry Kinyon in the Energy Office on Tuesday following the data collection. In

Nebraska, most of the 5 million-plus barrels of propane consumed in 1989 were used for heating and cooling residences and industries.

Twenty-four other states also collect information on propane and/or heating oil



prices. In addition, the EIA collects information on wholesale prices and primary stocks of both propane and heating oil. The EIA analyses and publishes the information collected in the weekly *Winter Fuels Report*.

Unusual 1990-91 Price Surge

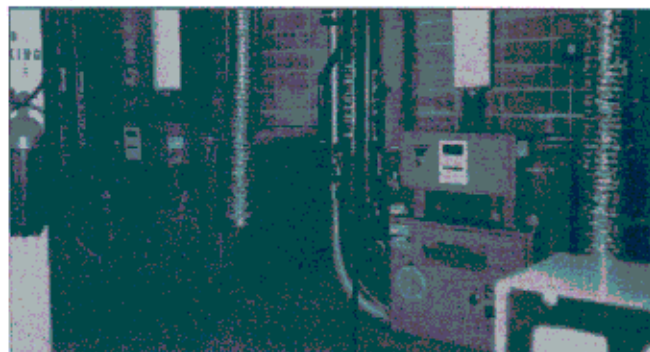
Nebraska propane prices for the 1990-91 heating season started near 80 cents/gallon in October 1990 and gradually decreased to about 50 cents/gallon in March 1991. Events in the Middle East were the controlling factor on prices during the winter of 1990-91 rather than the usual factors of weather and consumer demand.

Prices so far in 1991-92 are following a more typical pattern beginning the heating season at an average of 56.5 cents/gallon in October and increasing to 63.2 cents/gallon on November 18, 1991. Price increases so far have been caused mainly by the early winter weather experienced in the state. American propane inventories in November were in the normal range for the start of the heating season.

COGENERATION, Continued From Page 1

water and partial space heating requirements.

Electric and gas use measured for one year following the installation was compared to pre-installation energy data. The cogeneration units operated a combined total of 14,321 hours, displacing over 859,000 kilowatt-hours of electricity for a net



These two Tecogen units produce both electricity and useful heat from the same process, first by generating electricity and then recovering the heat from the engine. Instead of allowing waste heat to be lost, it is used for water and space heating.

cost savings of \$19,219 in the first year. On an initial investment of \$105,329 — shared equally by the Center and the Energy Office — the estimated simple payback is five and a half years.

Northern Natural Gas received the *Exxon* Oil Overcharge grant in 1987 and contributed \$10,806 to the project. The Jewish Community Center was selected as one of two demonstration projects because of their facility's high water use.

GRANTS, Continued From Page 2

Beat the January 24th Deadline

In December, grant pre-applications were mailed to all public, accredited parochial and trade schools, colleges, universities and hospitals in the state. Nebraska uses an abbreviated pre-application form to spare unsuccessful applicants from completing the lengthy federal application. Only those most likely to receive financial assistance will be requested to complete the federal forms.

Study First, Improve Later

In the Institutional Conservation Program, an institution must first complete an energy analysis or study of energy use in a building which identifies the dollar cost and estimated savings of potential projects. Studies may be paid for by the applicant or 50/50 matching grants are available for this purpose. After the studies are completed, they are then used as a basis for applying for a grant to finance the improvements identified in the study. In most cases, the grant is also a 50/50 match. But, in some instances, "hardship cases" may receive up to 90% of the project's cost.

If you have questions about this federal program or would like additional information, contact **Jeff Graef** in the Energy Office.

Coming June 1-3, 1992...

Energy in Rural America

If new trends in agriculture, ethanol from corn and other sources, fuels and fuel supplies, current utility issues and municipal solid waste are of interest to you, then you might want to attend the "Energy in Rural America— Profits and Opportunities" conference being held in Des Moines, Iowa June 1-3, 1992.



Ten States Plan a Varied Menu

Even though planning for the multi-day event continues by ten states, it is expected that the first day of the conference — June 1 — will feature several field trips. The following two days will be devoted to conference sessions with several different topics being offered during each time period. More information is expected to be available in January. The states responsible for planning the conference are: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio and Wisconsin.

For further information about the upcoming conference, contact the Iowa Department of Natural Resources, Energy Bureau, Wallace Building, Des Moines, IA 50219 (515) 281-8666 or **Bonnie Ziemann** in the Nebraska Energy Office.

Did You Know...

Fast Facts

● According to the American Forestry Association, growing a total of 100 million trees around homes and businesses would save U.S. ratepayers \$4 billion in cooling costs each year, and reduce CO² emissions by 18 million tons per year.

● Growing trees absorb carbon dioxide, storing the carbon part of the gas and releasing the rest as oxygen. (National Arbor Day Foundation)

● According to the Aluminum Association, it takes 8,760 pounds of bauxite ore and 1,020 of petroleum coke to produce one ton of aluminum. Most bauxite is imported from Guinea, Australia and Brazil.

● It takes 95% less energy to produce a can from recycled materials than from raw materials. (The EarthWorks Group)

● Recycling one ton of paper saves about 4,100 kilowatt hours of electricity — enough to power the average American home for five months. (The EarthWorks Group)

Answers to Your Energy Questions...

Information Services

CAREIRS The Conservation and Renewable Energy Inquiry and Referral Service answers questions at no charge.
(800) 523-2929 Renewable Energy Information
P.O. Box 8900
Silver Spring, MD 20907

CAREIRS is offering two new free publications, *Attic Radiant Barrier Fact Sheet* (SD247) and *Insulation* (FS142). Please refer to the number in parentheses when ordering a publication.

NATAS The National Appropriate Technology Assistance Service offers free technical and commercialization assistance.
(800) 428-2525 NATAS
U.S. Department of Energy
P.O. Box 2525
Butte, MT 59702-2525

NREL/TIS The National Renewable Energy Laboratory/ Technical Inquiry Service offers technical solar information for scientific and industrial professionals.
(303) 231-7303 Technical Information Service
National Renewable Energy Laboratory
1617 Cole Boulevard
Golden, CO 80401

NEIC The National Energy Information Center in the Energy Information Administration provides data and projections on energy production, consumption, prices and supplies.
(202) 586-8800 National Energy Information Center
U.S. Department of Energy
Forrestal Bldg., EI-22, Room 1F048
1000 Independence Avenue, S.W.
Washington, D.C. 20585

The Energy Office is offering a new **FREE** publication, *Tips for Energy Savers*. It features hundreds of helpful dollar and energy saving suggestions on heating and cooling systems, appliances, vehicles, lights and more. Contact **Jerry Loos** in the Energy Office for a copy.

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