

Nebraska ENERGY

Q U A R T E R L Y

Nebraska Energy Office

Spring 1991

Fifty-Three Nebraskans on Council...

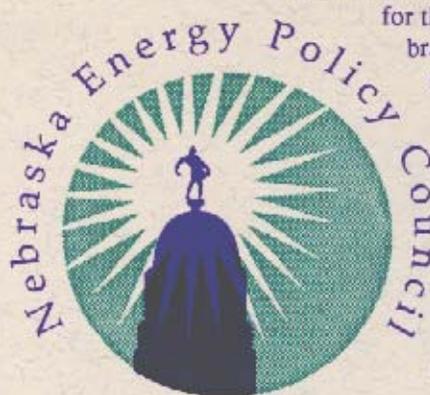
Energy Council Will Draft State Energy Policy

Governor Ben Nelson has announced that the Nebraska Energy Office will coordinate the development of an energy policy plan for the State of Nebraska. The February announcement

came in response to the recently completed National Energy Strategy, which the Administration has declared is "running on empty."

Governor Nelson commented that the lack of leadership in energy policy on the

federal level necessitated state action in order to prepare for future energy supply and use. Nebraska's plan will seek public input through the Energy Policy Council, which was appointed in mid-April.



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Energy Efficiency to be Targeted...

Robert Harris Appointed Director

Governor Ben Nelson has appointed Robert Harris as Director of the Nebraska Energy Office. Harris had served as president of Ag-Land Realty since 1978. The statewide firm deals in farm and ranch sales.

"Bob's knowledge of the state's rural economy, his interest in energy conservation and renewable fuels will make him an effective leader in our work to promote conservation and alternative fuels," said Governor Nelson.



Governor Nelson (left) states he has great confidence in his newly appointed Energy Director, Bob Harris.

Renewed Energy Emphasis

"The bottom line is that domestic energy supplies are limited and we need to plan for our future — a future that does not include increased foreign oil imports," Harris said. In Nebraska we must take a leadership role in demonstrating efficiency and conservation."

It's a message Harris plans to promote throughout the entire state. The Energy Office will produce the state's energy policy plan later this year, a plan which Harris hopes will encourage conservation and promote production and use of alternate fuels. "My background in

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\$18.4 Million Loaned to Date...

Energy Saving Improvement Funds Offered at 5%

The Energy Office's \$13.25 million revolving loan program for energy improvements was launched last July to overwhelming response. Dubbed the **Dollar and Energy Savings Loan Program**, loan funds are available at a 5% interest rate to consumers in five categories:

- residential,
- small business,
- agriculture,
- local government and
- rural nursing homes.



Energy Audits Identify Improvements

When potential borrowers don't know what energy improvements need to be made to their property or the desired improvements are not on the eligible list of improvements, an energy audit will be necessary. Free or low cost energy audits may be available from utility companies in your community. If they are not available, the Nebraska Energy Office can also make no-interest loans to finance the cost of the audit. Participating auditors charge a fee of up to \$200 for a home energy audit and \$50 per hour plus expenses for a building audit.

The Energy Office also supplies forms for a limited energy audit which may be completed by the applicant. These are most useful for agricultural operations.

The loan pool is capitalized with \$10.39 million in Exxon and \$2.86 million in Stripper Well Oil Overcharge Funds — almost half of all overcharge funds received by Nebraska. Oil overcharge funds resulted from a series of court settlements against oil companies which had violated federal price control regulations between 1973 and 1981. Because direct restitution to individuals is impractical, states were assigned the task of designing restitutionary programs that would reach the greatest number of consumers.

4,000 Loans Approved

Since the program began last July, nearly 4,000 loans have been financed. Energy Office funds invested thus far total \$10.3 million.

Lending institutions have added \$8.1 million from their funds for a total investment of \$18.4 million to date.

The initial \$8.75 million allocated for residential improvements has been expended. Applicants are being placed on a waiting list and the Energy Office will finance new residential loans from the pool of loan repayments. Funds are still available in the other four sectors and there are no waiting lists.

Loans Available Till Year 2000

The maximum loan amount is \$10,000 for a single family residence, \$37,500 for a multi-family residence, \$100,000 for small business/non-profit organizations, \$75,000 for agricultural operations, \$175,000 for local government entities and \$100,000 for rural nursing homes.

Eligible energy improvements include heating, cooling and water heating projects, door,

Loans Available at Local Financial Institutions

The Dollar and Energy Saving Loan Program is available to Nebraskans statewide through 319 financial institutions at 467 locations. Borrowers apply for the energy improvement loans in much the same way they would apply for a conventional home improvement loan and must meet their lender's credit requirements. After reviewing program documents and loan applications, the Energy Office purchases a portion of approved loans from the lending institutions. These purchases allow lenders to effectively reduce the interest rate on the loans to 5%.

Loan terms and the frequency of installment payments are determined by the lender within the parameters of the program. The maximum loan term varies with the type of project, but loans can be amortized over the maximum of ten years. Institutions may charge a 2% origination fee on loans written for the maximum term, but no other discounts or fees may be charged to the borrower. Lending institutions service the loans and reimburse the Energy Office for their portion of borrower repayments at least every 90 days.

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Floral and Vegetable Growers...

Greenhouse Designs Save 35% in Energy Costs

The University of Nebraska-Lincoln Department of Agricultural Engineering recently completed a project to develop and utilize computerized data bases and design software to complete technical consultations for greenhouse personnel. The value of U.S. greenhouse-produced crops was \$7 billion in 1988 and the primary objective of the project was to improve the competitive advantage of Nebraska's own greenhouse industry. With Nebraska's growers expending approximately 1/3 of their production budget on heating and cooling, the potential for reduced energy costs in the industry is great.



This newly constructed greenhouse in Lincoln incorporated UNL's Department of Agricultural Engineering's energy efficient design system to lessen energy costs.

The Greenhouse Systems Group compiled information on various greenhouse architectural configurations and glazing materials as they relate to energy conservation, and integrated biological, structural, environmental, mechanical and business components into a computerized data base and design system utilizing SMART, dBase and

HARRIS APPOINTED DIRECTOR *Continued From Page 1*

agriculture has made me an advocate of alternative fuels, such as ethanol, to minimize our dependence on fossil fuels," Harris stated.

Harris will also encourage state and local government efficiency efforts to reduce statewide energy costs. "This administration is committed to making choices which will benefit our economy. Energy efficiency programs work. They stimulate local economies and they cost less than acquiring or generating new sources of energy. We can keep those dollars working here in Nebraska."

CAD software. The engineers were able to compute grower costs and develop dynamic simulation models for simulating/analyzing heating and cooling in various greenhouse styles.

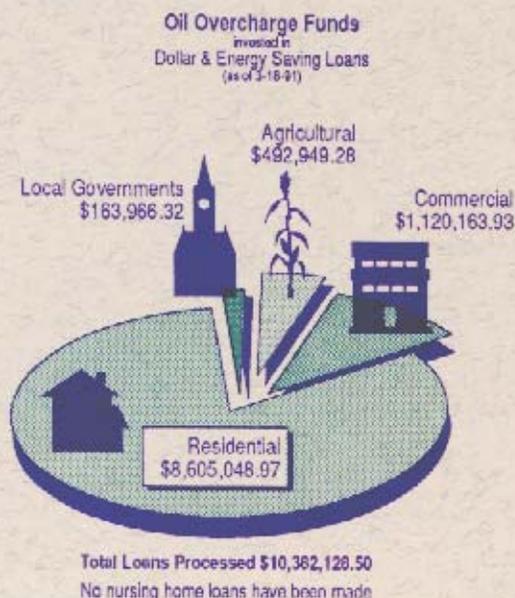
Total energy savings from over forty designs completed in the public and commercial sectors (ranging from \$2,500 to \$1.5 million) averaged 35% over the annual fuel costs associated with conventional greenhouse systems. Compared to conventional designs, the total accumulated energy savings for the next ten years from the energy efficient designs already implemented (3.1 acres) amounts to \$962,000 at current natural gas prices. The accumulated energy savings will escalate with the construction of the final 1.9 acres of greenhouses with a possible total accumulated energy savings exceeding \$1.5 million.

Copies of the software and operational instructions may be obtained by contacting Kimberly Brown at the Nebraska Energy Office. There will be a charge of \$15 involved for materials duplication.

LOANS *Continued From Page 2*

window, wall and ceiling projects, lighting projects and replacement appliances. An eligible list of all home, building and system improvements that can be made without performing an energy audit is available from the Energy Office. Other energy improvements may be validated with an energy audit (see page 2). A list of participating auditors is also available from the Energy Office.

The Dollar and Energy Saving Loan Program will be available to Nebraska residents for the next ten years as the loan pool continues to revolve and loans are made from the repayments. Applications and program information can be obtained by contacting the Nebraska Energy Office. Participating lending institutions also have program brochures and application forms.

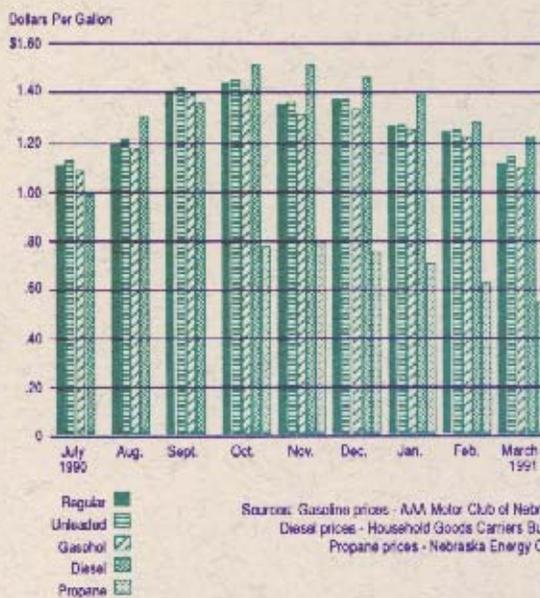


The Gulf War and Taxes to Blame...

Fuel Prices on a Roller Coaster

Gasoline, diesel fuel, and propane prices, which increased dramatically following Iraq's invasion of Kuwait, have returned to levels near where they were last August. Gasoline prices (regular, unleaded, and gasohol)

Fuel Prices July 1990 - March 1991



increased immediately after the invasion, peaking at about \$1.40 per gallon in early October. March prices also reflect a five cent federal tax increase on December 1 and a five cent state tax increase on January 1. Adjusting for the increased taxes, the March prices are approximately ten cents a gallon less than they were prior to the invasion.

Diesel Soars

Diesel fuel prices rose more dramatically than gasoline prices and remained at their peak through October and into November. March prices have fallen from the highs recorded in October and November, but remain 24 cents above the pre-invasion price (or 14 cents above the tax increase).

Propane prices began the heating season in October at 76 cents per gallon, 20-30 cents higher than normal for October. Propane prices have continuously fallen through the heating season to 53 cents in March, remaining up to 10 cents higher than a year ago.

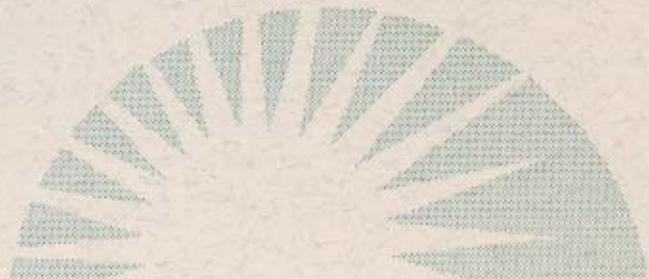
ENERGY POLICY COUNCIL *Continued From Page 1*

"I am pleased that these Nebraskans feel as I do — that the state needs to plan for its energy future," commented Governor Nelson. "As recent events have demonstrated, those who do not plan and implement energy strategies can become captives of the market and geopolitical forces. For too long, state government has been silent on the direction Nebraska should pursue on energy issues."

The Council will be responsible for developing a draft plan which will be reviewed by citizen groups and presented at fifteen public meetings across the state beginning in June. Appointees to the Energy Policy Council are:

- | | |
|----------------------------------|--------------------------------|
| Tony Acosta..... Omaha | Daryl LaPointe Winnebago |
| Ray Alvine Omaha | Bill Lucke Lincoln |
| Jerry Berggren Lincoln | Flora Lundberg McCook |
| Tim Burke Bellevue | Nelson Merz Falls City |
| Paula Casey Columbus | Francis Moul Lincoln |
| Michael Chemev Omaha | Larry Nelson Tekamah |
| Jim Christo Lincoln | Shirley Niemeier Lincoln |
| Doug Clark Lincoln | Jim Parks Scottsbluff |
| Robert Curtwright Omaha | Corrine Peterson Lincoln |
| Thomas Didier North Platte | Randy Reyzlik Fremont |
| Robert Diffendal Lincoln | Mike Rogers Omaha |
| Curt Donaldson Lincoln | Bill Rotert Bellevue |
| Don Egenberger Minden | Pete Rush Columbus |
| Keith Fickenscher Lincoln | Shelly Sahling Lincoln |
| Ken Fielding Omaha | Brian Skeahan Wahoo |
| Rod Gangwish Shelton | Fred Stone Lincoln |
| Gary Goldberg Kearney | John Vakoc Wayne |
| Betsy Hancock Lincoln | Rich Walters Ainsworth |
| John Hansen Lincoln | John Ways, Sr. Lincoln |
| Ken Hillman Gering | Cliff Welsh Brule |
| Steve Hinchcliff Omaha | Ione Werthman Omaha |
| Loren Hoekema Sidney | Rose White Omaha |
| Clint Johannes Columbus | Jess Wolf Hartington |
| Nick Johnson Norfolk | Tom Wurtz Omaha |
| Paul Kelp Omaha | Edie Young Lincoln |
| Duane Kristensen Hastings | Wayne Ziebarth Wilcox |
| Steve Krajewski Ogallala | |

The plan will be presented to the Governor in late October.



Did You Know....

Fast Facts

■ The United States' Strategic Petroleum Reserve (SPR) is stored in sixty salt caverns along the Gulf of Mexico Coast. Each salt cavern is approximately 2,000 feet deep and 200 feet in diameter and holds ten million barrels of crude oil. (DOE)

■ The United States currently has 590 million barrels of government-owned crude oil in reserve — the largest reserve in the world. (Emergency Information Administration)

■ The Strategic Petroleum Reserve has a maximum oil distribution capability of 3.5 million barrels per day. (DOE)

■ The first crude oil bought for the Strategic Petroleum Reserve came from Saudi Arabia in 1977. The largest cumulative SPR resource is from Mexico. (DOE)

■ Sixteen percent of our residential energy goes toward heating water — the second largest individual home energy use and expense. A water heater set at 120-140 degrees provides adequate hot water for most families. (DOE)

■ The U.S. waste production per person is twice that of any other nation in the world. Consumers throw away enough glass bottles and jars to fill the 1,350 foot twin towers of New York's World Trade Center every two weeks. (Earth Care Paper, Inc.)

■ If every gas-heated home were properly caulked and weatherstripped, the Department of Energy estimates that enough natural gas would be saved to heat about 4 million homes.

■ According to The Earth Works Group, Americans changing their own oil discard 120 million gallons of recoverable motor oil annually, allowing it to leak into and contaminate groundwater.

■ An open damper in a 48-inch square fireplace can allow up to 8 percent of residential heat to escape. (DOE)

■ Twenty cans can be produced from recycled aluminum with the same amount of energy that it takes to manufacture a single can from raw materials. (Texas A&M University)

■ The human body gives off heat: about 390 Btu per hour for a man, 330 for a woman. Dressing wisely can help retain natural heat. (DOE)

■ If everyone raised air-conditioning temperatures 6 degrees, approximately 190,000 barrels of oil would be saved every day. (DOE)

■ It takes about 30 gallons of water to fill the average tub. A five-minute shower with a flow of 3 gallons per minute uses about 15 gallons of water. (DOE)

■ Fluorescent lamps convert electricity to visible light up to 5 times more efficiently than incandescent lamps and last up to 20 times longer. (DOE)

Answers to Your Questions...

Energy Information Services

The U.S. Department of Energy offers five different energy information services available to the public. They are:

CAREIRS The Conservation and Renewable Energy Inquiry and Referral Service answers questions at no charge to the general public.

(800) 523-2929 Renewable Energy Information
P.O. Box 8900
Silver Spring, MD 20907

NATAS The National Appropriate Technology Assistance Service offers free tailored technical and commercialization assistance.

(800) 428-2525 NATAS
U.S. Dept. of Energy
P.O. Box 2525
Butte, MT 59702-2525

SERI/TIS The Solar Energy Research Institute/Technical Inquiry Service offers technical solar information for scientific and industrial professionals.

(303) 231-7303 Technical Information Service
Solar Energy Research Institute
1617 Cole Blvd.
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 Nat'l Energy Information Center
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1000 Independence Ave., S.W.
Washington, D.C. 20585

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