

Nebraska ENERGY

Q U A R T E R L Y

Nebraska Energy Office

Summer 1989

Officials meet in Lincoln

Oil Industry Says Diesel Shortages Are Temporary

Nebraska Governor Kay Orr reassured farmers that there should be adequate supplies of diesel fuel available during this growing season.

State officials met with Nebraska petroleum suppliers to discuss the scattered shortages which were apparently caused by a rare combination of factors.

"This is a critical time for our agricultural producers, who must have adequate supplies of fuel available to get their crops planted. Any lengthy delay could ruin a farmer's growing season, so it was important for state officials to find out why the shortages occurred," said the Governor.

Strained Capacity

State Agricultural Director Roy Frederick and State Energy Director Gary Rex met on May 18th with seven petroleum refiners, pipeline representatives and fuel transporters, three retail petroleum associations and three agriculture representatives. At the meeting, representatives agreed that low inventories of diesel fuel, maintenance at refineries and in pipelines coincided with planting and an earlier than expected start of irrigation. Taken together these factors strained the capabilities of the state's petroleum supply system.

"Suppliers and retailers plan on maintaining adequate diesel fuel supplies during the planting season, but can't predict refinery or pipeline shut downs. Shortages are

difficult to predict and the key to avoiding future problems is to continually monitor supply and demand," said Energy Director Rex.

Early Irrigation

Agriculture Director Roy Frederick added: "The earlier than normal start of irrigating season due to the drought placed a heavier than normal demand on diesel fuel supplies. A week of rain would do a lot to alleviate the shortage."

Rex added that he was pleased with the cooperative attitude of those who attended the meeting and their willingness to deal with the situation. Rex said that his office became aware of the shortages of diesel fuel several weeks ago and that similar shortages have occurred in Kansas, South Dakota, Iowa, Wyoming, and Texas.

Appointment by Governor Kay A. Orr

Morrison Named Deputy Director of Energy Office

Gothenburg City Administrator Jon Morrison was named deputy director of the Nebraska Energy Office. He assumed responsibility for these duties in early July.

Gary Rex, director for the agency, said Morrison's selection was enhanced by his "outstanding leadership and administrative experience." Since energy and economic development are "so closely tied", said Rex, "Morrison's skills will allow him to be an innovative and strong leader."

A 1969 graduate of the University of Nebraska Law School, Morrison served as executive director of the Gothenburg Improvement Company. This group recruits

businesses and helps small businesses with financing, promotion and operations. He also served as vice chairman of the West Central Nebraska Development District.



Inside

Workshops Slated on Business Activity	2
Computerized Traffic Control Comes to Omaha	2
Morrison Named Deputy Director	2
Summer Energy Savers	2
Five Year Ag Conservation Project Impacts NE	3
Oil Overcharge Plan Approval Sought	3
Ethanol Development Changes Okayed	4
Students Excel in Energy Economic Education	4
Energy Information Services	4

Planning a Program?

Energy Films and Videotapes

Are you a member of a club or organization and are challenged with the responsibility of finding a program?

The Office of Energy and Economic Education has a complete library of energy education materials, audio-visuals, videotapes and energy activities that are available free of charge or on a loan basis.

For more information or to request a copy of the audio-visual brochure, contact:

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The Office of Energy and Economic Education is operated by the Nebraska Council of Economic Education (NCEE) at the University of Nebraska-Lincoln under contract with the Energy Office.

1.8 Million Gallons of Gas Saved

Computerized Traffic Control Comes to Omaha

Thousands of Omaha drivers have cut fuel costs and are saving valuable travel time as a result of the city's new traffic timing system. The centrally-computerized system, purchased with funds from a Nebraska Energy Office grant, is a departure from past expensive and error-prone systems and replaces equipment outdated by more than twenty years. Cost efficient and easy to use, the central computer and sync-pulse timing devices require minimum information from street master computers.

Fuel Savings Top 9.7%

In addition to the modems installed at one hundred and twenty-five intersections, vehicle detectors and pedestrian push buttons were located at thirty-one crosswalks, equipment which allows green time to be allocated according to actual traffic volumes instead of inefficient predetermined timing plans. During the system's first weeks in operation, city officials estimated that driving delay was reduced by 39%, stops decreased by 37.7% and fuel consumption diminished by 9.7%. An anticipated 1.8 million gallons of gas will be saved annually.

One of Three in the U.S.

The new system is one of three currently being implemented in the United States and Omaha officials plan to expand the system to include all six hundred of the city's intersections by 1993.

Energy Emergency Preparedness

Nebraska Hosts National Meetings

The Nebraska Energy Office hosted two seminars on energy emergency preparedness to promote interstate coordination and to enhance a state's abilities to plan for energy emergencies in the event of energy supply disruptions.

Interstate Networking Discussed

The first seminar offered delegates from Iowa, Kansas, Missouri, North Dakota, South Dakota and Nebraska an opportunity to promote interstate networking. Fuel shortages in the Midwest this spring and summer were discussed by Rick Olson of Williams Pipeline Company in Tulsa, Oklahoma and Russ Mehl of Farmland Industries.

This seminar was made possible by a special grant to the Nebraska Energy Office from the Kansas City Support Office of the United States Department of Energy.

Contingency Plan Guidelines Presented

The second seminar served as one of the U.S. Department of Energy's 1989 annual regional seminars on energy emergency preparedness.

Gary Rex, Director of the Nebraska Energy Office, compared the energy system with the banking system. He said, "much of the safety of the banking systems depends on public trust. A run on banks because of loss of confidence in the banking system can wreak havoc. The same is true of the energy system."

Mr. Rex explained that public confidence in the ability of the system to deliver fuel supplies will prevent hoarding and other practices by the public that can exacerbate minor disruptions in fuel supply. A contingency plan helps to instill public confidence by developing procedures to manage energy contingencies.

The seminar was co-hosted by the Strom Thurmond Institute of Public Affairs in South Carolina. Dr. Horace W. Fleming, Jr., Institute Director, presented guidelines for states to use when they prepare contingency plans to manage energy shortages.

Representatives of the petroleum products, pipeline, natural gas and electrical utilities industries also discussed the different ways they would respond to any disruptions in energy supplies.

Keeping Your Cool

Summer Energy Savers

During typically sultry Nebraska summers, homeowners can follow these energy saving tips to keep their homes comfortably cool and their energy costs low.

- Close your fireplace damper.
- Shade east and west windows.
- Install ceiling fans where people congregate.
- Use smaller appliances such as a crockpot or microwave for preparing meals. Use your propane or gas grill.
- Replace incandescent lights with the new screw-in fluorescents.
- Plant a good shade tree on the east or west side of your home.

Five Year Ag Conservation Project Impacts Nebraska

For the past five years the Agricultural Energy Conservation Project has helped producers to reduce energy consumption, labor requirements, soil erosions and improve water use efficiencies.

The State of Nebraska entered into a cooperative agreement with the University of Nebraska Foundation to support the project developed through the University of Nebraska Cooperative Extension Service.



Leo Lucas (left), University of Nebraska-Lincoln presents a plaque to Gary Rex, Energy Office Director for \$500,000 support to ag energy project
(Institute of Agriculture and Natural Resources)

The three project components included conservation tillage in seven eastern Nebraska counties, irrigation management in three central Nebraska counties and ecofallow in seven southwestern Nebraska counties.

Producers in the project target areas made impressive gains through the adoption of conservation tillage, ecofallow and irrigation management practices. They:

- + saved more than 3.3 million gallons of diesel fuel
- + saved over 3 million dollars on energy costs
- + saved nearly 250,000 hours of labor
- + saved over \$1.2 million in labor costs
- + reduced soil erosion by 9.3 million tons.

Conservation Tillage Impact

Conservation tillage, no-till and ecofallow systems reduce or eliminate the number of tillage operations. At least 30 percent of the soil remains covered with residue lessening erosion while saving fuel and labor.

There was nearly a three-fold increase in the use of no-till. Conservation tillage use increased by over 20 percent.

Residue management and the reduction of tillage operations saved 1.2 million gallons of fuel and 178,000 hours of labor. This combined value is approximately 2 million dollars. Soil erosion has been reduced by nearly 7.5 million tons.

Irrigation Management Impact

Irrigation management uses scheduling and improvements in planting plant efficiency to save fuel and water.

Irrigation scheduling has reduced water application and energy requirements by 8.9 percent. Improved pumping plant efficiencies have saved 4.2 percent of the energy used for pumping.

These improvements have been adopted on 172,500 acres, saving about 1.7 million gallons of diesel fuel equivalent or over 1.5 million dollars of energy.

Ecofallow Impact

Producers have adopted some form of ecofarming on 71,000 acres since the project began.

These producers have saved more than 400,000 gallons of fuel and 68,000 hours of labor. These savings total about \$700,000. Soil erosion has been reduced by nearly 2 million tons.

For More Information, contact:

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What's the Status?

Oil Overcharge Plan Approval Sought

Nebraska's oil overcharge plan proposed by Governor Orr in January continued to find approval as it moved its way through the legislative process.

On February 13, 1989, the Appropriations Committee of the Nebraska Legislature conducted a hearing on the proposed oil overcharge plan. Nine people testified on issues relating to the plan. On February 22nd, the Appropriations Committee submitted its report to the full Legislature for its consideration. Because of a previous opinion from the Attorney General, the Legislature may only advise the Governor on the planned use of the funds. On February 28th, the Legislature discussed the plan and the committee report, subsequently passing the report on a 27-3 vote.

An Addition to the Plan

On April 20th, the Governor responded to the Committee Report by adding \$1 million to the \$500,000 program to make energy saving building improvements at the four state colleges. The Governor stipulated that the additional \$1 million be used to fund wood gasification projects at Chadron and Peru State Colleges.

Reserve Fund Grows

In the Governor's plan, not all of the funds were committed to programs. As of June 30th, the Reserve Fund balance was \$3.57 million. Growth in the fund balance occurred from interest and receipt of additional *Stripper Well* funds.

New Hope for Nebraska Production

Ethanol Development Changes Okayed

Prospects for commercially-sized ethanol production facilities in the state were enhanced with recent legislative changes to the ethanol Authority Development Act. The Act, originally passed in 1986, established the Ethanol Board, an eleven member committee responsible for collecting grain check-off fees for use in ethanol-related projects.

\$17 Million Fund

The grain check-off ended on January 1, 1989, after collecting \$17 million, but only one \$490,000 investment has been made from the fund. Eagle Fuels, located near Lincoln, is developing a bacteriological fermentation process for ethanol production and a fuel additive called ETBE.

The legislative changes will allow the Board to consider funding a broad range of ethanol-related projects and will permit the formation of a committee to assist in evaluating investments.

Ethanol is a valuable alternative fuel. However, the comparatively low price of petroleum has created a sluggish ethanol market. The state's only commercially-sized ethanol refinery is temporarily closed. Negotiations continue between the plant's creditors and potential purchasers.

Seven Schools Receive Awards

Students Excel in Energy Economic Education

Students from seven Nebraska schools recently received Statewide Awards for Excellence for their participation in the National Energy Education Development (NEED) activities. Nebraska's NEED project, coordinated by the Office of Energy Economic Education, reflects a nationwide effort to encourage and promote energy education programs in K-12 classrooms. Students across Nebraska participated in studies of energy topics and co-curricular energy activities which culminated in the NEEDay project competition.

Participants included project winners from St. Patrick's Senior High School (North Platte), St. Isidore School (Columbus), Ogallala Middle School, Bluff's Middle School (Scottsbluff), Platteville School (Fremont), St. Thomas Moore School (Omaha), and District 1 (Lemoyne).

Answers to Your Questions

Energy Information Services

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

- CAREIRS** The Conservation and Renewable Energy Inquiry and Referral Service answers energy conservation questions at no charge for 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 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 Nat'l Energy Information Center
U.S. Dept. of Energy
Forrestal Bldg., E1-22
Room 1F048
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This material was prepared with the support of the U.S. Department of Energy (DOE) Grant No. DE-FG47-80CE60109. However, any opinions, findings, conclusions, or recommendations expressed herein are those of the author and do not necessarily reflect the views of DOE.

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