

Question & Answer: The Future of Net Metering in Iowa

Q: What is net metering?

A: Currently in Iowa, several independent businesses and farms have installed wind turbines and other renewable energy resources to provide power to their operations. The electricity they produce is connected to the utility grid. A meter (similar to that on any home) keeps track of the operation's electricity production and consumption — if the farmer produces the same amount of energy

he uses, he offsets the price he would pay to the utility. If the farmer produces *more* energy than he consumes, the utility buys the excess power at a negotiated rate, historically between \$0.01 and \$0.03 per kWh (in essence, running the meter backward). If the farmer produces *less* energy than he consumes, he buys extra electricity at the utility's retail rate, around \$.09 per kWh. This is known as net metering.

Q: What is being debated in Iowa?

A: Iowa's investor-owned utilities have filed a petition to do away with net metering in the state. The utilities



are concerned that too much governmental control over the price paid for excess electricity creates a subsidy, doing away with natural market forces to set prices. They also think municipal utilities and rural co-ops should also pay this "subsidy." Another concern is a disadvantage utilities perceive they would have if restructuring occurs in the future.

Q: What do utilities propose as a solution?

A: The investor-owned utilities propose that an independent energy producer should have two meters — one dedicated solely to the energy he

produces, the other for energy consumed. The utility would charge the farmer for *all* the energy he consumes (as opposed to just the extra needed) at the retail rate. The utility would then pay for all renewable electricity produced at a price it sets — probably around \$.015 cents per kWh. This would eliminate the farmer's opportunity to use the power he produces for his own operation.

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Message from Larry Bean

“Is Anyone Here From Iowa?”

For each of you working to develop, manage and conserve state energy resources, it may encourage you to know that the nation’s attention is tuned into Iowa.

In February 1998, I had the pleasure of attending the National Association of State Energy Offices’ (NASEO) annual conference in Washington D.C. On the second day of the conference, Secretary of Energy Federico Pena walked up to the podium to give a key note luncheon address and began by asking, “Is anyone here from Iowa?” He then went on to applaud the outstanding results that Iowa has achieved in energy management.

NASEO also asked me to represent the country’s state energy offices at a congressional briefing in early March. This meeting positioned Iowa at the forefront of energy

efficiency development in the U.S.

National recognition of this dimension is due to every organization and individual working toward effective energy management. A key component is the partnerships being cultivated among organizations and individuals throughout Iowa bannng together to achieve concrete results. From ethanol to wind power to building efficiency, our state is helping lead the nation toward a sustainable future for its energy resources.

You can read about many of these accomplishments in the 1998 *Comprehensive Energy Plan Update*. This document is published every two years by the DNR and showcases many of the initiatives being developed in Iowa by both public and private-sector organizations. See the article on page three for details on how to obtain a copy of this report.



Thank you to everyone dedicated to developing energy efficiency and renewable energy in the state.

“Is anyone here from Iowa?”

Just wait until they see what’s next.

Sincerely,



Larry Bean
Division Administrator,
Energy and Geological
Resources Division

DNR-Energy Bureau Announces New Chief



◆ Sharon Tahtinen, Bureau Chief

The DNR proudly announces the appointment of Sharon Tahtinen as its new Energy Bureau Chief. Tahtinen took over the helm on Jan. 23. She will be responsible for providing leadership to the State of Iowa on energy policy and programming, and will oversee a staff of 26 employees. She will also represent the DNR on several state and national advisory boards, including the National Association of State Energy Officials and the U.S. Department of Energy’s regional meetings.

Tahtinen’s career in the energy field began in 1985 as a planner with the Iowa Energy Policy Council, which later merged with the DNR. She has served in all program areas of the Energy Bureau, most recently as an Executive Officer in energy planning and technology transfer.

A graduate of Northern Michigan University, Tahtinen also has her master’s degree from Iowa State University. She is a native of Ontonagon, Michigan.

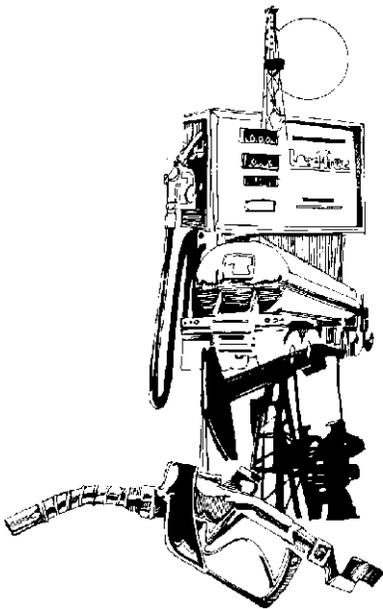


The Story Behind Iowa's Low Gasoline Prices

By Shashi Goel, Data Analyst

1998 began on a positive note for Iowa motorists, when the state's gasoline prices reached their lowest level in five years. At \$.95 per gallon, Des Moines' gas prices in January were 19 cents lower than one year ago. While everyone benefited from inexpensive gasoline, the question remains: why were prices so low?

From September (the end of the driving season) through December 1997, gasoline prices steadily fell from their peak of \$1.22 per gallon, mainly because of the seasonal decline in demand. But in late December gas prices experienced a sharper-than-average decline due to:



1. OPEC Quota Increase

Crude oil is the major feedstock used to produce gasoline, and therefore, gasoline prices closely follow the price of crude oil. Last December, the Organization of Petroleum Exporting Countries (OPEC) raised its quotas by 10 percent for the amount of oil that could be produced and sold by participating countries. Because of the increase in supply, crude oil prices slipped below \$16.50 per barrel for the first time since 1994.

2. Mild Winter Weather

A moderate winter was also important in pushing gasoline prices down. Slack demand for heating oil allowed refineries to produce more gasoline than heating fuel. In December 1997, refineries produced four million barrels

of gasoline more per week than in 1996, pushing gasoline stockpiles 8.5 million barrels higher than the previous year. Excess stockpiles of gasoline greatly affect market-price relationships, minimizing supply problems and price swings.

Recently, tensions in the Persian Gulf and rises in crude oil prices have slowed the downward spiral of gasoline prices. These concerns, along with future cold spells, will continue to impact Iowa's gasoline prices — and motorists' fortune at the pumps.

For more information about Iowa's fuel prices, please contact the DNR-Energy Bureau at (515) 281-8681.

1998 Plan Update Now Available

The Iowa DNR has published the *1998 Iowa Comprehensive Energy Plan Update* and the *Energy Data Addendum*. These two reports provide a complete overview of Iowa's energy picture, including how energy is currently being used, significant energy programs throughout the state, and energy forecasts for the future. In addition, the documents provide strategies for how to most effectively manage Iowa's energy resources through energy efficiency and renewable energy development.

The *Iowa Comprehensive Plan* was first created in 1990 by order of the Iowa Legislature to provide for the development, management and effective utilization of the state's energy resources. An update on Iowa's progress is published every two years.

For more information or to obtain a copy of the plan or data addendum, please contact Julie Tack at (515) 281-8665.

Did You Know...

Ethanol accounts for 42,000 jobs, \$1.5 billion in annual economic activity, and \$111 million in annual increased tax revenue for the state of Iowa, according to a 1997 study by Northwestern University.

Alternative Energy Revolving Loan Program

Financing assistance is available through the Iowa Energy Center for the development of alternative energy facilities in Iowa. Any individual and organization can apply, with the exception of nonrate-regulated utilities.

The Iowa Energy Center will finance about \$5.5 million in total projects over the next few years. The loan program is funded by Iowa's investor-owned utilities.

Funds are being allocated according to the following categories:

- ◆ Biomass — 20%
- ◆ Small Wind (20 kW or less) — 10%
- ◆ Large Wind (over 20 kW) — 20%
- ◆ Solar — 5%
- ◆ Hydro — 15%
- ◆ Open category — 30%

For complete details on AERLP, contact the Iowa Energy Center at (515) 294-8819.

Webster City Named National Rebuild Partner of the Year

Rebuild America, a U.S. Department of Energy program to help communities become energy efficient, has named Webster City as its partner of the year. The community was chosen over 150 other program participants in the U.S.

The Rebuild Webster City program, in effect for two years, serves as a model to other communities in Iowa and across the nation. The plan focuses on achieving energy savings, job retention, economic development, and helping the environment through energy efficiency. Additionally, it serves as a model for how to leverage a small amount of federal funding (less than \$50,000) into nearly \$5 million in energy efficiency improvements.

To date, Rebuild Webster City has retrofitted 20 buildings, including several schools, municipal buildings, private businesses and churches. Program improvements include new heating and cooling equipment, im-



proved lighting, water heater blankets, and other similar projects. Rebuild Program Manager Kelly Needles, said, "nearly every business and resident in this community supports the Rebuild effort. The entire state should be proud of what Webster City has achieved, and hopefully other communities will follow its example."

Webster City joined the program through the DNR's Rebuild Iowa initiative. Currently, seven other Iowa communities participate in Rebuild. Webster City was honored at a national Rebuild conference in San Antonio, TX on March 10.

Three Communities Join Rebuild Iowa

Waverly, Cedar Falls and Waterloo are the newest participants in Rebuild Iowa, working to achieve energy efficiency in their communities. All three Iowa cities launched their energy programs in January 1998.

Waverly and Cedar Falls are joining forces as Rebuild Cedar Valley, establishing the following goals: reduce energy consumption of residential and small-business participants by 10%; install 10,000 watts of energy efficient lighting; and educate area residents on energy efficiency.

Waterloo has named 1998 "The

Year of Rebuild Waterloo," with the goal of implementing \$5 million in energy efficiency improvements by the year 2000.

Rebuild Iowa is an extension of the national Department of Energy's Rebuild America program. The goal of the program is to implement comprehensive energy improvements in communities while reducing energy use, saving money and improving the environment.

For more information about Rebuild Iowa, contact Kimberly Baxter, (515) 281-6486.

An energetic approach to landscaping

By Jo Shea

An innovative way of protecting Iowa's energy resources *and* its landscape is emerging in the state, benefiting both land owners and the environment. Commonly termed "energy-efficient landscaping," organizations can lower energy bills, reduce long-term labor and chemical inputs, and improve wildlife habitat.

Manicured lawns, ornamental trees and tidy fences are traditional in Iowa's urban areas for both commercial and residential properties. While Iowans are comfortable with conventional landscaping, they are beginning to understand the money and energy necessary to maintain it.

As an alternative, energy-efficient landscaping lowers energy bills while retaining a property's outdoor beauty. This is achieved by decreasing the need for ongoing maintenance, while increasing shade for buildings. Examples of energy-efficient landscaping include: planting shade trees and shrubs to create wind breaks in the winter and cool shade in the summer; and converting lawns to prairie grass and wildflowers, lowering fossil fuel use while protecting the soil.

Because every property is unique, special consideration and pre-planning should be taken into account:

- ◆ Make sure plant materials and trees are appropriate for the site, for example: the correct tree and location to produce maximum shade.
- ◆ Plant as much Iowa-hardy vegetation as possible to take

advantage of weather and insect resistance in those plants.

- ◆ Choose a diversity of flora to improve plant health and quality.

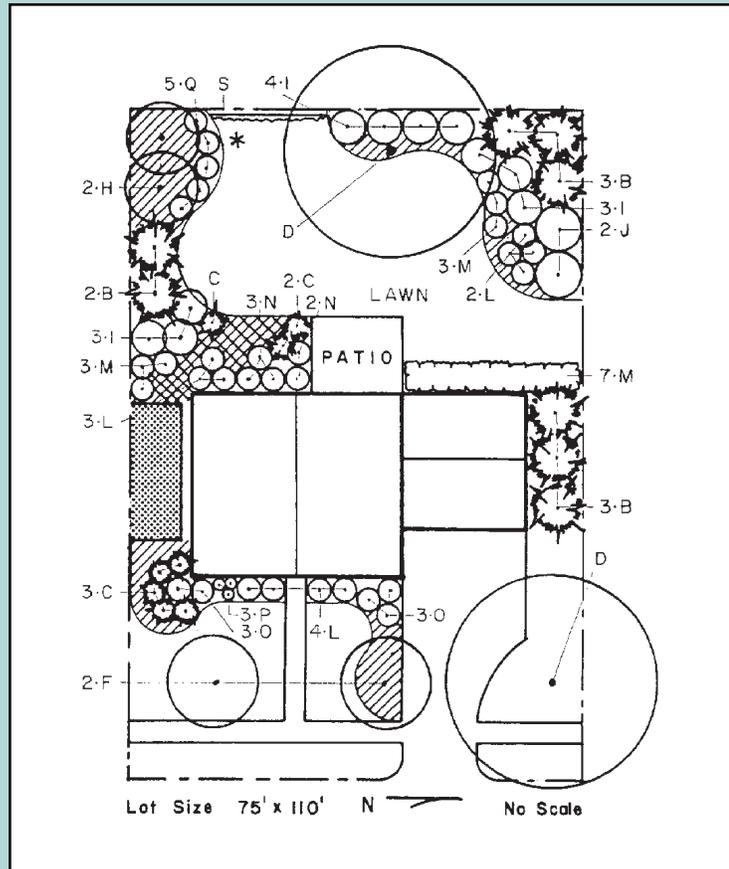
Two Iowa organizations have led the way in energy-efficient landscaping. Glenwood State Hospital-School initiated Project Renaissance, a holistic approach to managing its 1200 acres of Loess Hills farmland by concentrating on energy efficiency. Woodward State Hospital has received grants to plant trees and buffalo grass through a vegetation management project. Both of these organizations are members of the DNR's Iowa Energy Bank.

Many excellent resources are available for information and technical

assistance with energy-efficient landscaping projects:

- ◆ *Iowa Heartland RC&D, Inc.*
Phone: (515) 961-8099
Fax: (515) 961-4715
E-mail: iahtland@netins.net
- ◆ *Trees Forever*
Phone: (800) 369-1269
- ◆ *Your ISU County Extension Office*

Or contact the DNR at (515) 281-8681. Ask about the Adopt-a-Tree programs being offered this spring; hurry, the deadlines are for the end of April!



◆ Example of landscaping plan

Performance Contract: An agreement with an energy services company (ESCO) to provide a high level of technical assistance and consulting through every phase of energy efficiency improvements, with a *guarantee* that energy savings will occur due to the company's recommendations.

A Winning Performance

By Monica Stone

An important program offered by the DNR-Energy Bureau is Building Energy Management, helping public-sector facilities lower their utility bills through energy efficiency improvements. One alternative to help program participants meet their efficiency goals is a performance contract with an energy services company (ESCO).

If a facility such as a school, hospital or local government is in search of comprehensive assistance managing energy efficiency improvements, hiring an ESCO can be a sound solution. An ESCO offers:

- ◆ expertise — energy professionals are trained to provide engineering, design, construction and operational assistance to a project.
- ◆ customization — a facility can choose any or all program alternatives provided by an ESCO.
- ◆ thoroughness — overseeing efficiency improvements is time-intensive; outsourcing to an ESCO can alleviate a facility's time commitment and ensure the job is done correctly.
- ◆ guaranteed results — the ESCO offers measurement, verification and a guarantee of results for the energy improvements it helps install.

If a public facility is interested in a performance contract, the DNR will help determine qualifications and price criteria for choosing an appropriate ESCO. Once an ESCO is hired, the DNR will review technical quality and ensure that all conditions of the contract are being met. The DNR also helps the facility obtain financing for energy improvements through the Iowa Energy Bank program.

Questions to Ask Before Signing a Contract

1. Will energy improvements be made without the help of an ESCO?

The facility must assess its current resources, including staff time and expertise, to analyze whether or not they are capable of managing improvements without assistance, and to determine if a performance contract fits into its budget.

2. Financing is available through the Energy Bank. Knowing this, does the facility still have the resources to implement a project?

Managing a construction project includes engineer and contractor coordination,

directing construction, and attention to operations and maintenance. Some facilities may find it valuable to outsource these tasks.

3. How will the facility know the true costs and obligations of a performance contract are met?

Communicating clearly with the ESCO *before* signing a contract will help to clearly outline services being offered and how equipment will be purchased. Also ascertain the "cost" of guaranteeing energy savings; like any insurance, the price should be weighed against the risk being taken.

4. Does this agreement follow current Iowa law?

Yes, as long as competitive bidding procedures are followed for costs in excess of \$25,000 or more, and the contract is awarded to the lowest responsible bidder.

For more information about performance contracting, contact Kimberly Baxter of the DNR at (515) 281-6486.

Automakers Introduce Low Emissions Program

Feb. 12 marked the adoption of the voluntary National Low Emission Vehicle (NLEV) program, predicted to reduce vehicle emissions by 50-70 percent nationwide.

Vice President Al Gore was joined at the White House on Feb. 12 by representatives of Chrysler, Ford, General Motors, Toyota and 10 other foreign automobile manufacturers to launch

NLEV. Through this new voluntary emissions program between automakers and states, cars 70 percent cleaner than the law requires will be available in Connecticut, Delaware, Maryland, New Hampshire, Rhode Island, Virginia, and the District of Columbia by 1999, and elsewhere across the country by 2001.

According to Andrew Card, Jr., President and CEO of the American

Automobile Manufacturers Association (AAMA), NLEV cars and light trucks will be 99-percent clean compared to vehicles of 30 years ago. The Environmental Protection Agency has stated, "the program demonstrates how cooperative partnership efforts can produce a smarter, cheaper program that reduces regulatory burden while increasing protection of the environment and public health."

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The Future of Net Metering

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Q: What is the DNR's position on net metering?

A: The DNR is opposed to the specific solutions proposed by Iowa's investor-owned utilities. Iowa's current net metering practices do not require investor-owned utilities to purchase excess power at prices above their avoided costs. It also feels that customers should be entitled to offset their

own demand before selling any excess power to the utility. Most importantly, if this opportunity is taken away, it will severely hinder development of alternative energy facilities in Iowa, directly contradicting the goals set out in Iowa's laws to encourage renewable energy production.

Q: What is the next step?

A: The investor-owned utilities filed their proposal with the Iowa Utilities Board. The Board held a public hearing in January, and accepted written arguments through early February. Based on this input, the Iowa Utilities Board will make a decision about net metering in the next few months.



Calendar of Events

April 1-3, 1998. Ethanol in the 21st Century. Sacramento, CA. Sponsored by the Clean Fuels Development Coalition and the American Bioenergy Association. Contact Greg Dierkers at (800) USA-FUEL for registration information.

April 15. The President's Million Solar Roofs Initiative. Des Moines, IA. This pre-recorded video conference is open to the public. Focuses on solar and energy efficient technologies. RSVP by April 10 to Dean Peterson, (515) 242-5196.

April 22. Global Warming: Local Solutions. Des Moines, IA. Participate in this live, interactive teleconference about global climate change. Open to the public. RSVP by April 16 to Dean Peterson, (515) 242-5196. For additional sites for this and the million solar roofs video conference, call Tami Foster at the DNR at (515) 281-7015.

April 25-30. Soltech Annual Meeting for Solar Energy Industries Association. Orlando, FL. Call (202) 383-2620.

April 27-May 1. WINDPOWER '98. Sponsored by the American Wind Energy Association, a national conference on wind development. Bakersfield, CA. Call (202) 383-2500.

May 16. Iowa Electrathon. Cedar Rapids, IA. Electric car race sponsored by Center for Energy and Environmental Education and I-Renew. Call (319) 273-6912 for race information.

May 31-June 3. Clean Cities Conference. Alternative fuel vehicle development on a community level. Washington, D.C. Call (800) CCITIES.



Welcome to the new design style of the *Iowa Energy Bulletin*! We are adding new colors and have changed our masthead in order to re-energize our energy message.

The Bulletin Has a New **LOOK!**

The *Bulletin* will now be published on a quarterly basis, along with a special edition each October for the Iowa Energy Leadership awards.

Thanks for reading the *Iowa Energy Bulletin*. We invite you to share the newsletter with friends and col-

leagues by calling or faxing their name and address to us. The subscription is FREE, and we would love to add them to the mailing list.

Please call Julie Tack, *Energy Bulletin* editor, at (515) 281-8665. Or fax at (515) 281-8895.

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