

Jo-Carroll Hi-Lines

Jo-Carroll Electric Cooperative, Inc., Elizabeth, Illinois — (815) 858-3311

MANAGER'S REPORT by Connie M. Shireman



Shireman

Meter tampering illegal, dangerous

Throughout the nation, many people have fallen into the trap of believing that cheating the power company is okay. Many believe that since you cannot see electricity it is all right to steal it. These people have come up with many ingenious ways to reduce the effective registration of the utility meter. Every method conceived is a crime and in all cases dangerous to the one committing the crime.

The electrical industry is quite concerned about this problem, not only from the lost revenue standpoint, but from a safety standpoint. The utility meter is a special device designed to be maintained and operated by qualified personnel used to working on energized electric service. There is no disconnect ahead of the meter and any removal of a meter exposes live electrical parts that cannot be disconnected by the general public.

Every meter that measures electric service to a customer is owned by the utility. It is sealed to keep unauthorized persons from removing it. This seal is the same as a door lock on your home, and it is used for the same purpose. Although most people would not break a door lock on home or car, many would not consider breaking the seal on a utility-owned meter as the same thing. They fail to realize that the seal is a protection for them as well as the utility.

Criminal law places very stiff penalties on meter tampering and current diversion. People fail to realize that meter tampering leaves evidence that is easily seen by qualified personnel. Some of the penalties that the law imposes are:

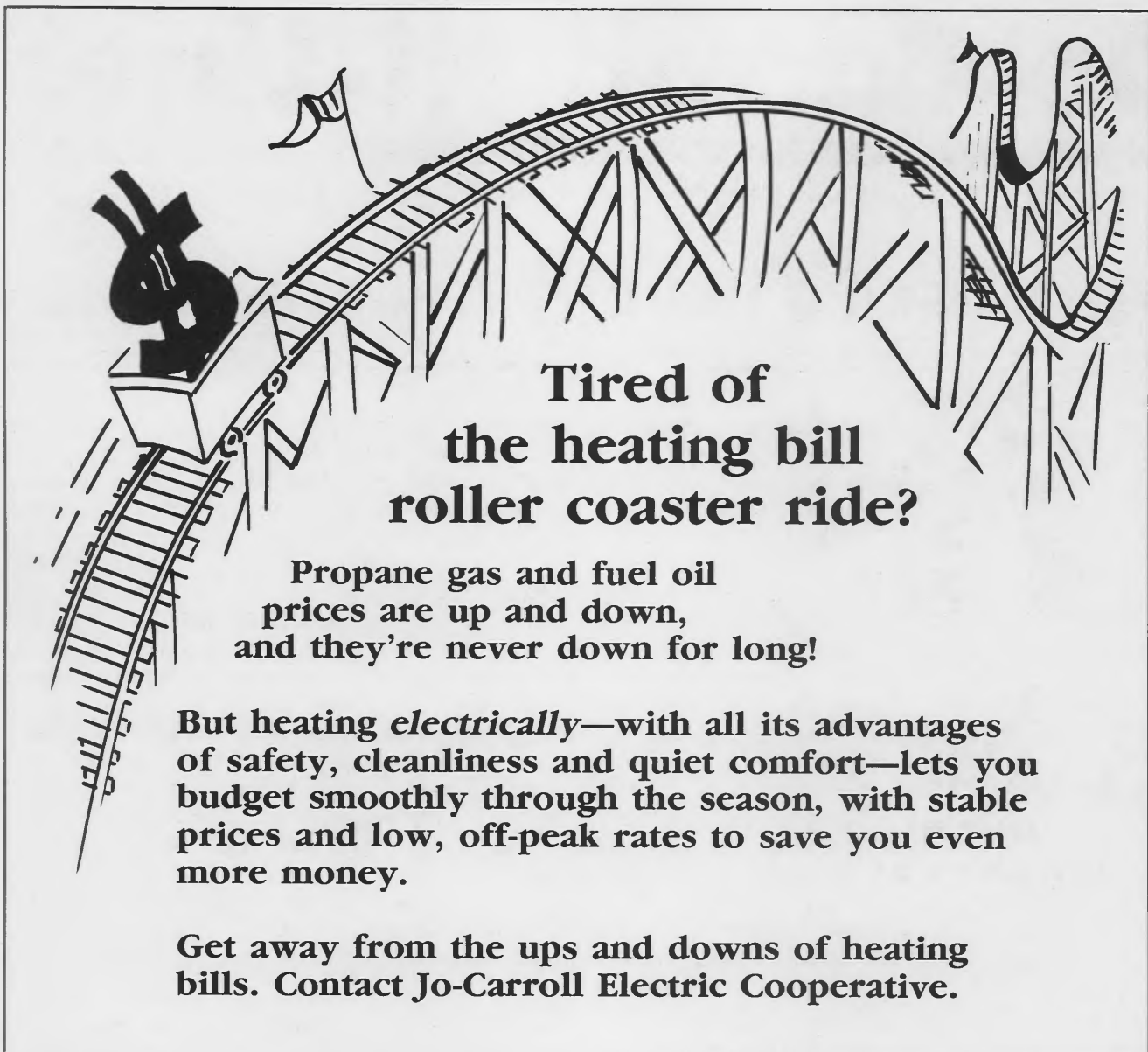
	Sentence	Fine
Meter tampering or circumvention	6 months	\$ 500
Theft of electricity, less than \$150 in value	1 day	1,000
Second offense	1-3 years	10,000
Greater than \$150	2-5 years	10,000

Jo-Carroll Electric is concerned about national trends and especially this one. We hope that this problem doesn't become serious with us. Since this is a cooperative made up and owned by the members it serves, any type of current theft is actually a theft against you and your neighbor. Current thieves, if undetected, add to the cost of doing business. This cost is passed on to the members of the cooperative through their energy bills.

Water heater control will save you money

Jo-Carroll Electric Cooperative offers a \$3 monthly bill reduction for allowing the cooperative to control electric water heaters during the peak times. This control typically occurs during the coldest winter evenings and should not inconvenience the member. Jo-Carroll has more than 1,800 controls installed.

The \$3 credit will not be given on an account that does not use at least 100 kilowatt-hours in a month, or at least \$7.85 in electrical usage in addition to the facility charge. It is unlikely that such a small use account would have the electric water heater operating during the month. New electric water heaters that are controlled by the cooperative earns the member a \$100 cash incentive, as well as the \$3 monthly bill credit.



**Tired of
the heating bill
roller coaster ride?**

**Propane gas and fuel oil
prices are up and down,
and they're never down for long!**

**But heating *electrically*—with all its advantages
of safety, cleanliness and quiet comfort—lets you
budget smoothly through the season, with stable
prices and low, off-peak rates to save you even
more money.**

**Get away from the ups and downs of heating
bills. Contact Jo-Carroll Electric Cooperative.**

Energy-efficient light bulbs

When would it pay to buy a light bulb costing \$22 instead of one costing \$.90? When you use it enough for the extra efficiency to be important, and that may be less time than you think, according to Bill Peterson, Extension Ag Engineer at the University of Illinois.

A recent entry into the lighting market is a screw-in fluorescent light using 18 watts that produces just as much light as a 75-watt regular incandescent bulb. While the price is about \$22, the life is 10,000 hours, compared with about 750 hours for the ordinary incandescent bulb. That means you would use 13.3 ordinary 75-watt bulbs (costing \$12) during the lifetime of one fluorescent bulb.

Also, in that time, the electricity to run the 18-watt fluorescent, screw-in bulb (at \$.06 per kwh) will cost \$10.80 while the electricity to run the 75-watt incandescent bulbs will cost \$45. The cost of bulb and electricity for the 10,000 hours will total about \$33 for the fluorescent bulb and \$57 for the incandescent bulbs.

Another way to compare is to calculate yearly bulb replacement cost, plus energy cost, plus interest on the extra money invested in the fluorescent bulb. Peterson's calculations, assuming bulbs operate two hours per day, show a yearly cost of \$1.58 per year less for the fluorescent light.

If the light is operated only one hour per day, the incandescent bulb is cheaper, but savings increase to \$3.31 per year when the light is operated 10 hours per night.

from the February 1991 IFEC Quarterly Report.

Keeping the lights on

We like to think that we provide pretty good electric service for the consumers in our community. And we're always working to do an even better job.

That's why it's puzzling to hear suggestions that we should make a major overhaul in the way we provide electricity. We have to remind ourselves, though, that not everyone knows how we go about providing that electricity. So we thought it would be worthwhile to comment on some of those questions that we hear every now and then.

Often, these suggestions for a sweeping change in our electric service come from national columnists or broadcast media. It's perhaps understandable that they may not understand small-town and rural communities very well.

Many of their questions center on the Rural Electrification Administration, a federal agency that provides loans and loan guarantees to consumer-owned utilities like ours. These loans help the nation's 1,000 consumer-owned electric systems provide thinly populated areas with electricity at a cost and quality comparable to cities.

ISN'T THE JOB OF RURAL ELECTRIFICATION DONE?

It's true that virtually everyone has electricity. And we work hard to keep it that way. People continue to move in to rural areas, subdivisions spring up, and lines must be upgraded and replaced. Those projects are expensive, and REA loans have helped keep electric bills affordable.

WHAT ABOUT AREAS THAT LOOK MORE SUBURBAN THAN RURAL?

A few rural electric systems serve some high-growth areas around cities and towns. Even those systems still only serve an average of 17 to 20 consumers for each mile of line. City utilities have about 35 ratepayers per mile. (The average rural electric system serves five consumers per mile.) It's harder to provide service with so few people paying the bills. Low-cost loans through the REA, and the not-for-profit nature of consumer-owned utilities, have helped make up for some of the difference.

I'VE HEARD THAT SOME RURAL ELECTRIC SYSTEMS SERVE SKI AND BEACH RESORTS

We're familiar with those examples. Often, just a few miles away you'll find families not nearly as well off. Resort developments help even out electric bills, making them more affordable for everybody in the service area. Most communities, including ours, welcome and even encourage economic development. It provides jobs and improves the quality of life. Some rural areas blessed with natural beauty can use that to attract businesses to capitalize on those qualities, actually helping the local utility and its consumers.

It's also important to note that REA assistance is in the form of loans, which are repaid with interest. These days rural electric systems are repaying the government \$2.7 billion a year. In fact, they are repaying a lot more than they are borrowing.

While we're leery of drastic changes to something that's working well, of course things evolve over the years. The leaders of consumer-owned electric utilities across the country are constantly reexamining how they can do their jobs better, and that includes debating the role of the REA. One example of the kind of change that has taken place over the past 10 years is that the amount of REA loans has declined more than 40 percent.

We think we've got a good system in place to make sure you have reliable and affordable electricity. And we're working to keep it that way.

Cooperative facts

- The first cooperative was organized in the U.S. by Benjamin Franklin in 1752. It was for the Insurance of Homes from Loss of Fire and it still continues today.
- About 30 percent of farmers' products in the U.S. are marketed through cooperatives?

Your annual meeting

Your member-owned, member-controlled electric cooperative will conduct two of the most important events in the cooperative's year during the next few weeks.

The first event, one that is very significant in that it firmly places democratic control of your rural electric system in the hands of its member-owners, is the director elections. This year the directors representing Districts 1, 3, and 4 will be up for election, and the nominating committees met at the cooperative headquarters on January 9, and selected the following candidates for election:

District 1 — Leonard Ricke, 6100 Ricke Dr., East Dubuque, IL 61025

Alan L. Gansert, 15920 Oak Bluffs Ct., East Dubuque, IL 61025

District 3 — David Hughes, 1027 S. Apple River Rd., Elizabeth, IL 61001

Roger Schlichting, 3170 N. Scout Camp Rd., Apple River, IL 61001

District 4 — Clarence Glasker, 7012 S. Blackjack, Hanover, IL 61041

Wayne Krohmer, 620 E. Reusch Rd., Elizabeth, IL 61028

The election for directors from these districts will be conducted through the mail. Only members who reside in the districts in which elections are being held this year will receive ballots. Members in those districts should carefully review the material they will receive in the mail and promptly return their completed ballots to Jo-Carroll Electric.

The second upcoming important event, perhaps the most important of the year, is the 53rd Annual Meeting of Jo-Carroll Electric Cooperative members. This meeting is scheduled to be held March 14 at the Mt. Carroll High School Gymnasium in Mt. Carroll. As in the past, we will feature reports of directors, officers and the manager of your cooperative. Music will be provided and we will have a guest speaker. A box lunch and attendance prizes will be provided to all Jo-Carroll members who attend. More details about the annual meeting will be provided in the coming weeks.

Gerald Gawlick

**Mark your
calendar!!**

March 14

**Jo-Carroll Electric Cooperative
Annual Meeting**

March 1992

SUN	MON	TUE	WED	THU	FRI	SAT	
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

Office hours

7:30 a.m. to 4 p.m.
Monday through Friday

Outages and emergencies

call 858-3311
24 hours a day

Reader prize

Each month, we print the name of a Jo-Carroll member who is eligible to win a monthly \$25 readership prize. If your name is printed in this month's edition, and not a part of any story, contact Jo-Carroll and claim your prize no later than the 10th of the month following publication.

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Shireman

See you at your annual meeting

Please accept my warm welcome to all of Jo-Carroll's members to attend the annual meeting. It will be held March 14 at the Mt. Carroll High School gym in Mt. Carroll. The agenda for the day is printed below.

Jo-Carroll has many new members who have never attended an annual meeting, and that may be due to the fact that they don't realize how much fun the meeting can be. We do have speeches from the officers and myself, and they may not be all that exciting, but they cover important topics about your member-owned, member-controlled electric cooperative. The speeches may not qualify as being "fun" in the truest sense of the word, so we have added some features to make up for the "not-so-fun" parts of the meeting.

For instance, I wonder how many of the members who miss the meeting each year realize that we always have musical entertainment before the meeting. This year we have Doretta Newendyke providing our music. Do the members who miss the meeting know that we have a humorous speaker? The last few years our speakers have kept the audience laughing, and I'm sure this year's speaker, John Curoe, will do the same. Do members know that we give attendance prizes for each member attending and that we draw for big prizes like kitchen appliances as well as a \$50 "early bird" prize? Do they know that we offer a "bargain table" with low-priced items for purchase? And displays on energy efficiency? And a babysitting room for the small children of members? **Karen Steffes**

Annual meeting program

Saturday, March 14

11 a.m. to 12:45 p.m.

Registration

11:45 a.m.

Early bird prize \$50 on an electric bill

Box lunch furnished by your cooperative, prepared and served by the Jacobstown Community Club.

11:30 a.m. to 12:45 p.m.

Music by Doretta Newendyke

11:45 a.m. to 12:45 p.m.

Lunch

1:00 p.m.—Call to orderRichard Reusch, President
 Pledge of Allegiance to the FlagRichard Reusch
 InvocationRev. David Davies, Pastor, Fairview United Methodist Church
 Welcome AddressMarilyn Magill, Mayor of Mt. Carroll
 Introduction of Special Guests and EmployeesConnie Shireman,
 General Manager

Introduction of DirectorsRichard Reusch
 Reading of Notice of MeetingLeonard Ricke, Secretary
 Approval of Minutes of Last MeetingLeonard Ricke
 Report of Officers:

PresidentRichard Reusch

TreasurerJohn Janssen

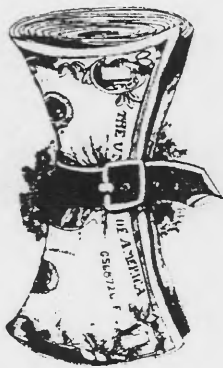
ManagerConnie M. Shireman

Special Guest SpeakerJohn Curoe, Humorist

Report of Director Election ..Chairman, Credentials and Election Committee
 Adjourn

Awarding of Attendance PrizesNeil Bailey and Jerry Maddox

Your home's energy appetite



Everything that happens in the world depends on the movement and exchange of energy. The fatness or thinness of our bodies is directly due to the scarcity or abundance of calories, the units of heat in our food. Heat, or lack of it, affects everything it touches. Know your enemy is an old adage. Know your friend might be a new adage to make the most of heat's services.

While other citizens scream to the heavens about the soaring cost of gas and electricity, let us make some mental notes about heat and how you two can work together most effectively.

Fact: 72 percent of a home's energy costs are from heating . . . as in a furnace; and from lack of heating . . . such as in air conditioning; 10 percent are from water heating.

Your job is to channel and contain usable energy for which you have paid. When manufacturers include footnotes that "savings include fuel cost increases of 10 percent per year," then this is the time to determine that not one smidgen of heat or cold is going to get out of doing a fair share of work for you.

You are going to go on an energy diet!

First — know three ways in which heat moves:

Conduction — by transmission through a conveyor; as through burners on an electric stove.

Convection — by transfer of heat through a fluid; as from hot water heater through water lines to faucets.

Radiation — by the emission of waves or particles of energy through the air; as by radiator or fireplace.

Did you notice that the three ways heat moves is through solids, liquids and air? That does not leave much, does it? So your first assignment is to stop all leaks!

As an added incentive, for every \$2 you can shave and save off your utility bills, you will be allowed to put \$3 in your pocket.

Why? Because an estimated one-third of all the money you earn goes for federal, state and local taxes . . . so you would have to earn \$3 in order to spend \$2 on wasted energy!

Here are some free clues to get you started on your energy diet.

Heating and Air Conditioning (72 percent):

- Thermostat: figure on saving 3 percent for every degree down in winter, and 4 percent up in summer.

- If you have radiators, cover the wall behind with reflective foil.

- Preventive maintenance saves fuel and repair expense.

- Filters are on your side! Keep them clean.

- Partake of free sunshine heat in winter; in summer spray paint rollup shades silver or white to keep heat out of windows.

- Figure a 3 percent increase in fuel bills for each child running in and out of the house. Lock them in or out! (Just kidding!)

- If given the choice, choose a light-colored roof.

- Practice humidity control. Death Valley's humidity is 20 percent . . . yours is probably 10 percent. Properly humidified air can make you feel more comfortable at a lower temperature in winter.

- An electronic air cleaning unit zaps dust, smoke and bacteria and collects up to 95 percent of foreign irritants out of household air. Since a film of dust on radiator or baseboard unit reduces efficiency, this could save you money.

- You can save about 90 percent of the energy required for air conditioning if you can substitute a fan or attic ventilator.

- Warm air rises. To get it back down where the bodies are, how about trying one of the old four-bladed ceiling fans from the good old days.

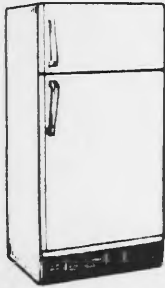
Water Heater (10 percent):

- Insulate the hot water lines every place you can trace them. Consider an insulation blanket on the water heater itself.

- Be sure to keep the water heater's interior free of sediment so the heater can do its job.

● Experts say that a home water heater can be set at 125 degrees unless you have a dishwasher, and then it should be set at 130 to 135 degrees. Did you ever read the fine print on any box of dishwashing detergent? The fine print says that water should be from 140 to 160 degrees. The reason is that detergent is broken down into chemicals to do the dishwashing work at that temperature range. At 140 degrees the chemical release will be slow, and at over 160 degrees it will be too fast to do the job. Could improper water temperature be the simple reason why so many people complain about how their dishwashers work?

Refrigerator economics



Studies at Purdue University and by Whirlpool Corporation have discovered that the number of times a day a refrigerator door is opened has little bearing on the amount of electricity used.

Researchers measured the energy use of a typical refrigerator at different rates of door openings. The measurements spanned a range of 0-80 door openings per day. Whirlpool discovered that the average number is about 45 but a family of six may have over 100.

The studies determined that the number of door openings has a relatively modest effect on overall energy use. The extreme case of shifting from zero openings to 80 openings per day increased the use of electricity by about 25 percent.

Most of the energy is consumed in overcoming heat gain through the walls of the appliance and in operating the automatic defrost feature. This explains the reason a member's usage (and bill) will not fall dramatically during the summer when the family is on vacation and the house is empty. Without air conditioning, the heat build-up in the house will force the refrigerator (and the freezer) to operate many more hours than normal. We stress regular cleaning of the gasket on the door and of the frame where the gasket makes contact. A void caused by food particles or dirt buildup creates an opening for the exit of cold air from the refrigerator and a consequent extended running time for the compressor to overcome the loss. And, of course, cleaning the cooling coil often to increase the efficiency of the unit is still good practice.

The conclusion is that, once a refrigerator is purchased, little can be done to reduce its energy consumption — so, when purchasing a refrigerator, choose very carefully for the most efficient model. Then keep it clean.

Simple pointers reduce energy use of water beds



For some people, crawling into a nice, warm water bed is the best way to survive a cold winter night. By following a few simple pointers regarding your water bed, you can stay warm and save money on your electric bill.

First of all, remember that a water bed uses more energy to maintain its temperature in a cold room. In some cases, however, turning down your room thermostat will offset the increase in the bed's electricity usage.

The average water bed uses 90 to 150 kilowatt-hours a month. The amount of electricity costs \$9 to \$15.

Covering your water bed will reduce energy use. A partially unmade bed used 30 percent more energy than one that is made.

If you have a standard water bed, insulate the bottom and sides with polystyrene insulation. Place it around the sides and underneath, between the wood deck and plastic liner. This can reduce your operating costs by about 25 percent.

An alternative to insulating is to buy an insulated liner. Tests have shown that these liners save about 13 percent on a standard king-size bed.

Keep in mind that the size of the water bed, the design of the mattress, the efficiency and size of the heater, as well as your lifestyle, will affect the water bed's electrical usage.

Energy-saving tips

Seal your home

Look for air leaks through walls or ceilings. Close fireplace dampers; seal cracks or holes; fill gaps in insulation.

Close rooms

Close off unoccupied rooms and shut their heat or air-conditioning vents; or turn off room air conditioners. (This does not apply if you have a heat pump system. Leave it alone; shutting vents could harm a heat pump.)

Iron them dry

Remove clothes that will need ironing from the dryer while they are still damp. There's no point in wasting energy to dry them thoroughly if they only have to be dampened again.

Heating tip

When the heat is on, keep draperies and shades open in sunny windows; close them at night.

Save on hot water

Heating water accounts for about 20 percent of all the energy we use in our homes. Don't waste it. Repair leaky faucets promptly. Do as much household cleaning as possible with cold water. Insulate your hot water storage tank and piping. Install aerators and low-flow shower heads.

Keep oven closed

Watch the clock or use a timer; don't continually open the oven door to check food. Every time you open the door heat escapes and your cooking takes more energy.

Energy-efficient light bulbs

When would it pay to buy a light bulb costing \$22 instead of one costing 90 cents? When you use it enough for the extra efficiency to be important, and that may be less time than you think, says Bill Peterson, Extension Ag Engineer at the University of Illinois.

A recent entry into the lighting market is a screw-in fluorescent light using 18 watts that produces just as much light as a 75-watt regular incandescent bulb. While the price is about \$22, the life is 10,000 hours, compared with about 750 hours for the ordinary incandescent bulb. That means you would use 13.3 ordinary 75-watt bulbs (costing \$12) during the lifetime of one fluorescent bulb.

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Jo-Carroll honored for safety

With the advent of spring, it would seem appropriate to go over some of the all important electrical safety tips. Each year, hundreds of people in the United States are electrocuted. In addition, there is an average of 30 linemen per year killed by electrocution in the United States. Even trained experts in electricity such as linemen can be at risk if the basic electrical safety precautions are not taken.

I am extremely proud to announce that Jo-Carroll has recently been awarded the prestigious "Safety Accreditation Award" by the National Rural Electric Cooperative Association in Washington, D.C. Jo-Carroll qualified for this honor by going through a very rigorous process that considered such things as our method of operating, our accident record and our maintenance procedures etc. The award is for a three-year period, and this is the third consecutive three-year period in which Jo-Carroll has received the award.

When a cooperative receives a safety award, it is not a signal to "relax" your safety programs. In fact, such an honor reminds us that we must make our membership aware of the dangers involved in using and working around electricity. Electricity is the most efficient energy choice we have but it must be treated with respect.

In this issue of the Jo-Carroll High Lines, we are going to focus on safety in a number of articles. One, "An Instant Of Carelessness," was shared with us by our insurance carrier. This occurred in a cooperative out west to an individual working on an irrigation system. This message, which was both touching and deeply moving, does apply to all of us.

An instant of carelessness

Dear Member:

It's Wednesday evening and tomorrow is the Fourth of July. You have just enough time to move a few joints of mainline out into the field before supper. Your three-year old son is out there "helping" his dad do the chores. You're very careful moving the pipes since he isn't yet aware that they're awkward and that he can get in the way.

You smile as you bend over to lift the next pipe. You can't wait to see the look on his face when you light off that box of fireworks tomorrow night. Won't he be cute with his awe-struck face illuminated by the sparkler? You heft the four inch aluminum pipe and look down its length for obstructions. Damn it. Another ground squirrel nest. A drop of sweat rolls off your cheek and leaves a salty taste in the corner of your mouth. You jam the end of the pipe into the dirt and raise it up to shake out the nest. Going to be a hot one tomorrow. Better be careful with those fireworks. You see that your son is safely out of the way — he's drawing something on the white alkali

crust with a greasewood stick. Going to be a fine boy one of these . . . ZAP.

You're knocked to the ground — paralyzed. Nothing seems to be working. You can't move or breathe. Are you dead? Is this what it's like? Your son is standing over you with a terrified look on his face. "Daddy?" he asks softly. "Daddy?" You know exactly what happened. That powerline overhead — the one to your irrigation pump. You forgot it was there. "Daddy!" screams your son, tears streaming down his face. Thank God he's all right.

There's small fire in the greasewood along the fence. You feel its heat on your leg. Guess you're not dead after all, not yet anyway. Your leg jerks away from the heat by reflex, but nothing seems to want to do what you tell it. With an effort you twist your neck to look back towards the house. Your wife is looking towards you; she must have heard the boy yell. Slowly the feeling returns to your limbs and you stagger to your feet. You're still not very steady as your son hugs your thigh and holds on tight. Still dazed, you take a couple of steps, then reach down for your son and take a couple more.

You're starting to feel a little better. In fact, except for sore joints and your little toe, you're feeling pretty good, considering how you felt just a minute ago. Wait a minute, that little toe is starting to hurt. It feels like it's been mashed. What's that burned hole doing on the tip of your boot? Gingerly, you remove the boot and sock. Oops! You fight back the nausea and put the sock back on the foot. You close your eyes but the vision of that toe won't leave your sight.

You hobble to the house. Your wife meets you halfway and helps you into the car. You're glad that there's a hospital nearby. You hold your son in your arms to distract you from the pain. He's still scared and crying. As you kiss his cheek to comfort him, you can taste his tears. Salty, just like your sweat. You're so damn glad to be alive.

We didn't just make this up. It happened at 5:30 p.m. Wednesday, July 3, 1991. It didn't happen to someone else, somewhere else. It happened to one of our members; it happened right here. Don't ever let it happen to you. Think about it.

Gene Habben

Jack Heaston
Manager

Electricity is controlled lightning — respect it!

Power lines are an ever-present part of our lives today. They are everywhere because they carry the electricity which has become such an indispensable feature of modern life.

But precisely because electricity is so commonplace, we sometimes fail to respect its awesome power that flows along power lines.

Electricity, for all practical purposes, is no different from the lightning that occurs in nature. Its flow is ordinarily controlled, of course, and is entirely safe when used with proper precautions.

But, just like lightning, electricity constantly seeks a path to the ground. That's why wiring has insulation on it and why poles have ceramic or other kinds of insulators: to prevent the electricity from taking a direct path to the ground rather than through our electrically powered machinery and appliances.

And when a human body becomes a direct link between a power line and the earth, the result can be disastrous.

This is why it is so important that we not let the presence of electric power lines become so commonplace that we forget to respect the force which is carried silently along the lines.

- Flying kites or model airplanes — When kite strings or metal guide wires touch live power lines, they can provide the path-to-the-ground that electricity seeks, making the final part of its journey through the body of

the person holding the string or wire.

- Tree climbing — Many youngsters have found countless hours of fun and pleasure climbing trees, but where power lines run between limbs or touch parts of the tree, fun could turn to tragedy.
- Farm equipment — When using farm equipment or moving it around, be especially careful not to let it come in contact with overhead wiring. Should this happen while you or someone else is touching the equipment, you could again provide that vital link to the ground for the electricity.
- Ladders — Be particularly careful when moving a ladder near a power line. It can easily tilt into the live wire and create a disastrous situation.
- Antennas — Being cumbersome and hard to control, antennas are especially dangerous to move about near an electric line. Use caution when installing or replacing an antenna.

In short, consider all overhead power lines dangerous, keep all objects at least 10 feet away from them, and never attempt to raise or move an electric line. Call us for any kind of assistance in dealing with live electric lines. This is our business and we know how to do it safely.

Safety is our business, too



The 1991 Safety Accreditation Award.

This demonstration unit, known as a "hotline demo," was constructed by Jo-Carroll linemen. We intend to take this to all of the grade schools in our service area in order to educate our young people about electrical safety.



The firm of Quad-City Testing Lab tests one of Jo-Carroll's aerial trucks for safety compliance. This firm measures the dielectric strength and the mechanical strength of all of Jo-Carroll's equipment each year, to ensure that our linemen are able to work safely.

Look up and be safe!



This time of the year most people are outside enjoying the nice days . . . cleaning up, making home improvements, getting into the fields or just enjoying the nice weather.

Whatever takes you outdoors this spring, remember to look up and be safe! Electric lines, both overhead and underground, can be deadly!

Whether you're moving tall farm equipment, flying kites, cleaning gutters or planting trees, be aware of the electric lines in the area. Jo-Carroll Electric Cooperative, your member-owned utility, wants you to be safe and sound this spring. Electricity is a wonderful, often taken for granted servant. But remember not to take those electric lines for granted — they can be deadly!

Look around!

Watch the overhead power lines in the farmyard and near the fields! These lines carry deadly, high-voltage loads. Any contact between the lines and augers, combines, antennas or other equipment might be deadly.

Don't fly kites . . .

. . . near power lines. Spring is ideal kite-flying weather, but keep those kids and kites away from the utility lines. Electric lines and kites form a deadly combination!

Call before you dig!

Putting in a brand new garden or planting trees this spring? Be sure that you don't plant or dig near underground power lines. You might be shocked to find buried cables by accident. If in doubt, call Jo-Carroll Electric to find the location of underground lines in your area.

Look up around the home or farm!

When you are carrying metal ladders, long boards, pipes or poles, remember to be on the alert for any utility lines in the yard. When you're on the roof making repairs, cleaning gutters or working on an antenna, be alert for any power lines within reach.

During emergencies . . .

stay clear of fallen electric lines. Call your electric cooperative immediately! Never assume that a fallen power line is dead!

Reader prize

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7:30 a.m. to 4 p.m.
Monday through Friday

Outages and emergencies

call 858-3311
24 hours a day

Jo-Carroll Hi-Lines

Jo-Carroll Electric Cooperative, Inc., Elizabeth, Illinois — (815) 858-3311

MANAGER'S REPORT by Connie M. Shireman



Shireman

Jo-Carroll joins JULIE

Jo-Carroll Electric Cooperative recently joined the JULIE system, which stands for Joint Utility Locating Information for Excavators. For many years, the general public and contractors would call the cooperative to have us come and locate our underground facilities in areas where they plan to dig. Our linemen would come and either place flags or mark the ground with red spray paint to indicate where our underground facilities were buried.

Now, our members and contractors and the general public are all urged to call 1-800-892-0123 when you wish this service to be performed. Most utilities in our area are now a member of JULIE.

Please use this number whenever you plan to dig where you suspect there might be Jo-Carroll facilities. The underground conductors are rated at 7,200 volts, and any contact could cause a tragic accident or death. It is very important that Jo-Carroll be contacted in advance so that we can schedule the locate. The JULIE rule specifies 48 hours notice before you plan to dig. Also, when you talk to the JULIE operator they will ask certain questions. The following is a list of the information they will need:

1. County
2. Township
3. Section
4. $\frac{1}{4}$ section number
5. Location of excavation such as road name, street address, lot number, etc.
6. And location on property where work will take place such as "along front lot line for 150 feet" or "10 feet on all sides of an existing power pole." It is also very helpful to mark the requested area with a wood lath.
7. Name and phone number where person requesting the locate can be reached by the utility company if there are any questions.

We hope by joining JULIE we will enhance the safety and security of the Jo-Carroll electric system and the members and general public, while continuing to provide the underground location service. If anyone has any questions about this or any other subjects relating to underground electrical cables, please call Jerry Maddox at the Jo-Carroll Electric office at 858-2207.

Member note:

Jo-Carroll presently has two outside contractors working on our project. One, the Osмосе Corporation, is a pole treating and testing company. Osмосе has been hired to dig around the base of Jo-Carroll-owned poles and test or treat the pole. A tree-trimming company, Stettens, Inc., has also been contracted by Jo-Carroll to trim trees near our power lines. This company's employees are currently working near Mt. Carroll. A story will appear in the next issue of the Jo-Carroll "high lines" about these contracted services.

Gertrude Kloph



Three members of Jo-Carroll Electric Cooperative, Elizabeth, have been reelected to three-year terms on the cooperative's board of directors. Results of the mail balloting were announced during the cooperative's 53rd annual meeting March 14 in Mt. Carroll. From left are directors David Hughes of Elizabeth and Leonard Ricke of East Dubuque, along with Connie Shireman, manager of the cooperative. Reelected director Clarence Glasker of Hanover was not available for the photo.

Connections:

Many meanings for Jo-Carroll

The services provided by Jo-Carroll Electric Cooperative extend well beyond the power lines. Officials of your electric utility reported during the cooperative's 53rd annual meeting March 14 that the word "connections" means many things to Jo-Carroll.

Richard Reusch of Elizabeth, president, said, "There are many different types of electrical connections in our electrical distribution system. The same is true of the connection between the cooperative and its members. We connect with our members and the local business communities in many ways."

Reusch pointed out several examples of the non-electrical connections. He cited the cooperative's Rural TV satellite dish programming, energy audits for members, dual fuel space heating and other load management systems to help members save money, as well as the "Crime Watch" cooperation provided by Jo-Carroll employees and the economic development activities of employees and directors. Reusch also noted the availability of the multi-purpose room at the headquarters for community groups and safety information programs for members and area school children.

He added, "Jo-Carroll Electric Cooperative and its employees pay thousands of dollars in taxes that help support the local economy. Many of the goods and supplies that the cooperative needs in its operation are purchased locally. Our employees live and work in the local communities. Their children attend local schools, and they support the local churches. Our employees are members of the local chambers of commerce, the economic development committees and the local service organizations."

Manager Connie Shireman focused in her report on the more technical electrical connections. "During the past year, we have welcomed a number of new members to the cooperative by connecting 176 new services."

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Shireman called members' attention to the somewhat negative side of connections — outages. "While we can't control the forces of nature, or even the occasional driver that will leave the road and hit one of our poles, we have made a great effort to minimize the amount of time that you are unconnected from your cooperative. Our outage record shows that we have done a good job.

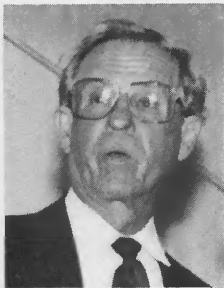
"The average number of hours per member of outage time in 1991 was one hour and eight minutes. Our prior five-year average outage record per member was two hours and 12 minutes," she added. Shireman said that while that was an improvement of more than 50 percent, "we cannot control the weather and therefore cannot promise this type of improvement in outage time each year."

She outlined the cooperative's well-planned, aggressive maintenance program, including pole and conductor replacement, tree trimming and repair and replacement of the many other important components on the distribution system.

During the meeting, results of the director elections were announced. Three incumbents — Clarence Glasker of Hanover, David Hughes of Elizabeth and Leonard Ricke of East Dubuque — were reelected to three-year terms on the board.

Following the members' meeting, the board reorganized and reelected officers: Reusch, president; Vernon Law of Savanna, vice president; Ricke, secretary; and John Janssen of Chadwick, treasurer.

Clockwise from below: Part of the large crowd during lunch. Children had their own special place and activities. Jo-Carroll's Don Schleicher shows off the co-op's safety award. Board president Richard Reusch (left) talks with guest speaker John Curoe. Bill Berg, Dairyland Power Cooperative general manager. Thomas H. Moore, Association of Illinois Electric Cooperatives general manager.



Protect yourself and your family!

Caring for the people we serve. That's a vital part of being an electric cooperative. And your local electric cooperative cares for its members. That's why we're offering you a chance to do your part for electrical safety.

Right now, we're offering outlet safety plugs to our members, free of charge! Just come to our office, and pick up your free pack of 10 electrical outlet plugs.

What's so important about electrical safety?

Although electricity is one of the safest ways of providing energy, accidents can happen. But when you take preventative measures, you're ensuring that you'll have a steady supply of electrical power for your lights, heat for your home and fuel for your cooking needs. And, taking those steps could prevent an injury to yourself or a member of your family—especially small children whose curiosity can put them in danger.

Plus, "Putting in a Plug for Electrical Safety" can save you money! Our electrical plugs are designed to prevent you from losing heat from unused outlets.

Safety begins in the home!

Outlets aren't the only source of potential hazard in your home. Using frayed power cords or overloading an outlet with too many appliances is a dangerous fire hazard.

Electrical objects can be dangerous when they're near water as well. Water serves as a conductor for electricity, and that can lead to serious injuries, or can be fatal to a member of your family.

Remember to always keep electrical appliances, radios and television sets away from the water sources in your home.

Electrical safety doesn't end inside!

You can do even more to prevent electrical accidents. Being extremely cautious while you're near electrical power lines and substations could prevent a tragedy. Remember these safety tips while you're working around your home or near an electrical power source:

- Stay away from any downed power lines. If you see one, contact us immediately so we can send our service people to repair it.
- Don't use metal ladders, tree trimmers or tools near overhead electrical power lines.
- Avoid using electrical tools or appliances near water or wet ground outside of your home.
- Be extremely cautious when digging near an underground power line. Call your electric cooperative before digging to find out the location of any buried power lines.
- Keep a safe distance from electrical substations. An accidental brush or touch at the wrong spot almost always leads to life-threatening injuries. Only skilled, authorized personnel should enter a substation.

Become a part of the electrical team!

Electrical energy is a vital part of our lives. Think of where we would be without it. When you do your part to ensure safety from electrical accidents in your home, you're an important part of the electric cooperative team . . . Working Together, Working for You!

Jo-Carroll Hi-Lines

Jo-Ca

Jo-Carroll Electric Cooperative, Inc., Elizabeth, Illinois — (815) 858-3311

MANAGER'S REPORT by Connie M. Shireman



Shireman



Each pole is drilled to be certain that no wood rot or insect damage is inside the pole.

Pole tests under way

One could say that poles are the backbone of an electrical distribution system, because of their importance. The great majority of Jo-Carroll's 1,000 miles of electrical lines are overhead, attached to insulators, and are held in the air or suspended by the wooden poles. Your electric cooperative owns and maintains about 20,000 of these poles, spread over the two-county area.

The reliability of poles is very important for safety, and important in keeping the lights on. If a pole were to break, the line would come down and come in contact with the ground, causing an outage. Worse, if a pole

(Continued on page 12d)



A view of the lodge at Chestnut Mountain. This full service resort facility has 128 guest rooms.

Chestnut Mountain

As part of a multi-year remodeling program, Chestnut Mountain is completely remodeling 34 rooms and a meeting room in 1992. Chestnut has spent several million dollars over the last few years in upgrades of both the snow skiing and lodging facilities. Some of the improvements on the ski slope include a new chair lift, improved ski runs, and an advanced snow-making system. The lodge has been improved by giving the exterior walls and windows a "face-lift," and by remodeling many of the meeting rooms and guest rooms.

The renovations continue this year with the 34 rooms. Each room has been stripped to the stud walls and bare floors and are being completely redone. Chestnut has always been known as a high quality lodging facility, but with the new improvements the rooms will be deluxe.

All told, Chestnut has 128 rooms. The full-service resort also offers an indoor pool, sauna, and whirlpool, as well as a game room, gift shop and ski apparel shop. Chestnut has full service dining in the Alpine Room, and gourmet dining in the Steinhaus. (Chestnut also offers full banquet facilities and is available for wedding receptions, business meetings, conventions and other functions.) They also have miniature golf and tennis in the summertime. During the summer, one of the ski slopes is converted to a ride known as the Alpine Slide. In the winter, of course, the focus turns



As can be seen by this photo, this guest room has been stripped to the stud walls and all new carpeting, wall coverings, and bath fixtures are being installed.

to skiing. Chestnut is among the finest ski resorts in the Midwest. They have 17 ski runs, some that feature a 475-foot vertical drop. They have two triple and one quad chair lifts as well as five rope tows, and offer 100 percent snow making. They have rental skis and offer a ski school, and, the ski slope is lighted for night skiing.

Chestnut Mountain is one of Jo-Carroll's largest consumers of electric service. The cooperative has enjoyed an excellent relationship with this resort since it began in 1959. The relationship has been further enhanced in recent years due to their participation in Jo-Carroll Electric's load management program. Similar to one of our Dual Fuel accounts, Chestnut Mountain is able to reduce the heavy winter peaks and saves all of Jo-Carroll Electric Cooperative's members in wholesale power costs. They save by turning off the snow making, and switching the lodge onto a stand-by generator when called for by Jo-Carroll Electric's controls. This relationship between Jo-Carroll and Chestnut Mountain is a fine example of energy efficiency through cooperation.

in remodeling



An off-season view down the ski hill. During the winter, this scene would be bustling with activity. Chestnut can handle several thousand skiers per day during the winter season.

(Continued from page 12a)

breaks and the line comes in contact with a person or building, a serious injury or fire could result. A tragedy could occur if a lineman were climbing the pole at the time.

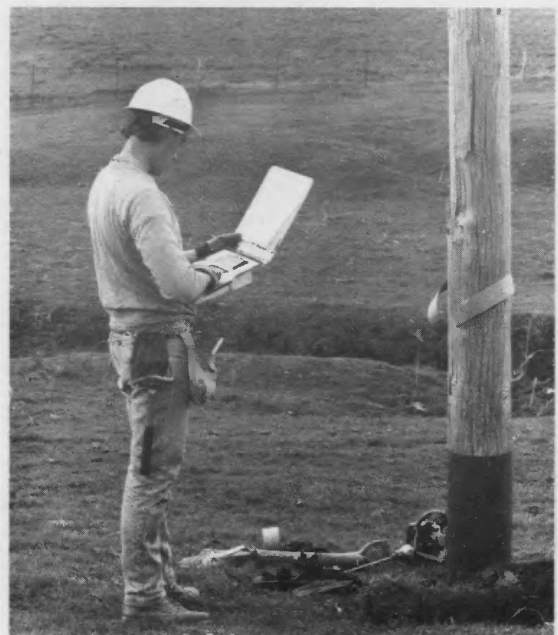
Utility poles are generally made from cedar, southern pine, or douglas fir. Most of Jo-Carroll's are made from southern pine, and these are treated with creosote at the milling plant to ensure a long service life. With time, and the action of the elements though, the wood will weaken, and become less safe. In order to enhance system reliability and safety, Jo-Carroll has contracted a pole testing and treatment company to check our poles. A testing schedule has been set up, and 1,600 of the poles will be tested in 1992. Jo-Carroll has an on-going testing program and approximately 11,500 poles have been inspected since 1983. Of these, 870 have been rejected and changed out by Jo-Carroll crews.

The company we have hired is Osmose Inc., a world-wide wood preserving contractor, with divisions in lumber treating, railroad, marine, and the utility industry. Ken Beekman is the foreman for Osmose, and he and his three-man crew are working in northeastern Jo-Davie County.

Ken explained the process, "First we sound the pole with a hammer to be sure there are no pockets of decay above ground, then we dig down 18 to 20 inches on the pole. "Any deeper than that, the oxygen won't penetrate the soil, and there would be no decay. "We drill each pole to the center, below the ground line to check for insect damage or internal decay, and fill the drill hole or any pockets with an insecticide that seeps into the wood fibers, and stops rotting." Ken noted that the outside three or four inches of the pole are the strongest part of the pole. He went on to say, "because of these we treat each pole with a compound containing creosote and sodium fluoride around the entire base, from above the ground line to 18 to 20 inches deep. "Through osmosis the compound enters the wood fiber to seal the bottom of the pole and then a plastic moisture barrier is stapled to the pole, the dirt is backfilled and left to settle.

Osmose also does line inspection as they go, noting things like broken crossarms, woodpecker holes, cracked insulators, and the condition of pole grounds and guy wires. They also mark each pole with the map location and keep careful records of each pole treated. The Osmose crew uses a hand held computer that accepts all the field data that is then transmitted across telephone lines to the home office, which in turn generates a report for Jo-Carroll. Poles that are too damaged to treat are marked and Jo-Carroll line crews will change those out. Jo-Carroll line superintendent Neil Bailey estimates that about 8 percent of the poles in this years inspection area will need to be changed out. Neil notes that the number of bad poles will vary according to the age of the line.

If a pole is found to be in very bad shape, it is marked as a "danger" pole. This means that a good wind might take it down, but under no circumstances should a lineman attempt to climb it. These poles are changed out immediately.



Osmose foreman Ken Beekman enters information about this pole in the hand held computer.

Contractor has much experience

Line inspection included in work

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MANAGER'S REPORT by Connie M. Shireman



Shireman

Editor's note: This column was written by James M. Cummins, manager of Southeastern Illinois Electric Cooperative and has been adapted for reprinting.

Many years ago, Sears, Roebuck & Company (just Sears for the younger folks) used to rate its catalogue items as "Good," "Better" and "Best." These same descriptive terms are still applicable today, when comparing heating systems. For example, propane is a GOOD heating choice. Older propane units (50-60 percent efficiency) have annual heating costs that are comparable to electric resistance heating (electric baseboard, ceiling cable and electric furnaces). Newer propane furnaces (85-95 percent efficiency) have annual heating costs that are comparable to the older (150 percent efficiency) heat pumps and in general, they are more efficient than electric resistance heat units. They are not, however, competitive with the newer 200 percent efficiency heat pumps. The disadvantages of propane include locating and refilling the storage tank, as well as product price instability.

Natural gas is a BETTER heating choice. Newer, high efficiency natural gas furnaces have annual heating costs that are less than electric baseboard, ceiling cable or electric forced air. These units also hold a slight edge on newer high efficiency heat pumps. Disadvantages of natural gas include its limited availability, the increased maintenance requirements of the newer high efficiency units, and the obvious disadvantage of having an explosive material in your home or on your property.

The BEST choice of heating systems is electricity. It's clean, safe and reliable. Heat pumps, for example, have a back-up system which is activated automatically in the event of compressor failure. Electricity is a flameless heat, and unlike gas systems, no combustion occurs in or near your home; consequently, there is no need to vent toxic fumes. When electric space heating is combined with cooking and water heating, there is only one utility bill to pay, an advantage for today's busy families. The only disadvantage of electric heat is, as noted above, that it can cost more.

Sears never had an "ultimate" classification, but Jo-Carroll does. It's known as Dual Fuel. This program involves homes that are electrically heated and have another source of heating. This will allow the cooperative to install a radio-controlled switch on the electric heating portion and interrupt it during peak times. A \$200 cash bonus will be paid to any new Dual Fuel heating systems. Many combinations of gas, wood, oil and electricity are possible. The rate on the controlled electric heat is 3 cents per kilowatt-hour during the eight winter months. A 5 cent per kilowatt-hour rate is available for air conditioning in conjunction with a Dual Fuel installation for the remaining months of the year. Many systems have been developed that can be used in conjunction with oil, wood or gas heat in forced air, hot water, or base board systems to allow any home to be converted to the Dual Fuel program. This program combines the high efficiency of electric heating with the very low price of 3 cents per kilowatt-hour to offer the "ultimate" in home heating.

If you would like any information on this system or additional facts or figures on any of the above systems, please phone YOUR Cooperative at 858-2207 and they will be provided, and as always "We'll keep the lights on for you."

P.S. All cost comparisons were made using Jo-Carroll's Dual Fuel residential rates. Actual costs might vary if a comparison were made using energy costs from another electric cooperative or public utility.



This tree on a member's property is being trimmed. Note the well-cleared right-of-way in the background.



Chuck Cook and Tim Bussan of Stetters tree service cut down the tree that is in the power line right-of-way.

Maintenance programs important

An important, ongoing maintenance program at Jo-Carroll Electric Cooperative is continuing this summer.

Right-of-way clearing is being performed by Stetter's Tree Service and involves tree trimming. Many of the areas where Jo-Carroll Electric's lines run are in the private right-of-way. These areas are heavily forested, and it is important that trees do not come in contact with the line. When a tree or branch makes contact with the line, an outage or service interruption usually results.

A systematic approach to tree clearing has been undertaken by hiring the contractor. The firm started four years ago in the western part of our service area and is continuing to the east, following all of the overhead lines. The procedure they are following requires that they ask each landowner for permission to clear the brush, then measure a specified amount on either side of the overhead line. The area is then cleared of all brush and trees.

Trees coming in contact with the line not only cause power outages, but also contribute to the line loss. Line loss refers to the amount of kilowatt-hours lost in the transmission of electricity from the substation to the member's meter. By reducing the number of tree contacts, the cooperative not only reduces the number of power outages and interruptions, but also saves money.

Maintenance programs such as this, and many others, are an important part of operating an electrical distribution system. It would not be a good business practice to wait until the trees fall into the line before you perform the repairs needed. It is by aggressively approaching the necessary system maintenance that the cooperative is able to continue to provide safe, high-quality service to our membership.

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Four of the cabins are built, with the foundations in place for the other four cabins.

Log cabin lodging

One of the newest commercial accounts added to Jo-Carroll Electric's service this summer looks like one of the oldest. This is not an accident; this is carefully planned, authentic log cabin lodging. Known as The Early American Settlement, this complex of log cabins located on Blackjack Road between Chestnut Mountain and Galena is designed to offer quiet, restful lodging for those who would enjoy something out of the ordinary.

Twelve units are planned, four double and four single. All are authentic log cabins with hand-chinked hewn logs of cedar and red pine, all-pine floors and ceilings, and exposed loft beams to help to give these inviting cabins their old-fashioned warmth and natural appeal. They are rather large, over 500 square feet, with a cathedral ceiling. A separate addition on each cabin houses a modern bathroom.

Each cabin's amenities include a fireplace, whirlpool, full bath, color TV, VCR player, telephone, refrigerator, and central air and heat. All cabins feature two double beds.

The owners of the Early American Settlement plan to attract those who would enjoy a country experience. Apple trees and walnut trees are located on their acreage, as well as wetlands, hills, and a variety of trees and plants. Small Pox Creek borders their property, which is suitable for canoeing, and they have developed hiking trails and areas to view wildlife.

This addition to the Jo-Carroll system is one of many involved with the tourism industry and promises to offer a "little different" in lodging experience. The local phone number is (815) 777-4200, or for reservations you can call 1-800-366-LOGS.



An interior view of one of the cabins, showing the fireplace. These cabins are all hand-made, with dove-tail cuts; they are not kits.



Closeup of one of the homes



The sign says it all.

Judy Williams celebrates 25 years of service with Jo-Carroll



Williams

On May 1, Judy Williams, assistant office manager-bookkeeper, celebrated 25 years of service to Jo-Carroll. During her tenure in the JC office, Judy has seen many changes. When she began, the cooperative had less than 2,000 members, and 700 miles of line, and JC now has more than 5,000 services in place and more than 1,040 miles of line. Equally as dramatic are the changes that have taken place in the office—from a small two-room area to a large modern building and from hand ledgers to powerful computers. "But," Judy said on her anniversary, "what has not changed is the quality of the people of this area—some good folks at Jo-Carroll working hard to give high quality service to some good members."

How to calculate 'Degree day'

Have you wondered how to compute "degree days?" Well, here's a short description of how it's done.

"Degree days" is a term used in comparing monthly or annual temperatures and is useful in explaining energy use.

To determine degree days, you must calculate the daily mean temperature for the time period you are measuring. Degree day computation is based on the assumption that a building does not require any heat if the outside temperature averages 65 degrees during a 24-hour period. To obtain a degree day figure, the high and low temperatures for the day are added and the total divided by two. That figure is then subtracted from 65.

For example, to calculate a degree day with the high temperature at 30 degrees and the low temperature at 10 degrees:

$$30 + 10 = 40 \quad 40 \div 2 = 20 \quad 65 - 20 = 45$$

This would be a 45-degree day. The higher the degree day figure, the more heat required to heat your home.

Note: When the daily average temperature is below 65 degrees, you are calculating heating degree days. When the daily average is above 65 degrees, you are calculating cooling degree days.

(Reprinted with permission by Cornbelt Power Cooperative, Iowa)

Humidifiers need special care now, too

Just as with any other appliance, humidifiers need regular maintenance to keep them running efficiently and to prevent bad odors. This is especially true during the "off" season.

Now that the heating season is over, you'll want to plan on keeping the humidifier clean for next fall and winter. The filter pad may need to be replaced. Or perhaps, a good cleaning will make it last a while longer. By gently squeezing a mild solution of water and vinegar through the pad, mineral deposits and dust will be washed away.

As water evaporates, residue will be left in the water reservoir. Scrub the inside of the tub with a mild detergent. This discourages growth of mold, mildew and bacteria. When the reservoir is refilled during the next heating season, add a teaspoon of chlorine bleach or humidifier water treatment.

Joseph Zerbian

Also, dust the grill and wipe the cabinet with a soft cloth. In addition to cleaning the appliance routinely during the heating season, the Association of Home Appliance Manufacturers recommends the unit be cleaned thoroughly when you store the unit away in the summer. Check the owner's manual for complete instruction.

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MANAGER'S REPORT by Connie M. Shireman



Shireman

What is stray voltage?

What causes stray voltage?

Editor's note: We are reprinting this article that deals with a subject of importance to many Jo-Carroll Electric members.

Dairy farmers may occasionally notice a change in the behavior of their cows, such as extreme nervousness in the parlor or a reluctance even to enter the parlor. Those are signs the cattle may be the victims of stray voltage stress. These symptoms—in addition to a number of others, such as uneven milk letdown, reluctance to drink water or reduced feed intake—can mean other problems as well, but dairymen might want to consider stray voltage as one possibility.

What is stray voltage and what can dairy farmers do to protect their herd and avoid management problems? Please read on for a discussion of a problem that is becoming more common among livestock farmers.

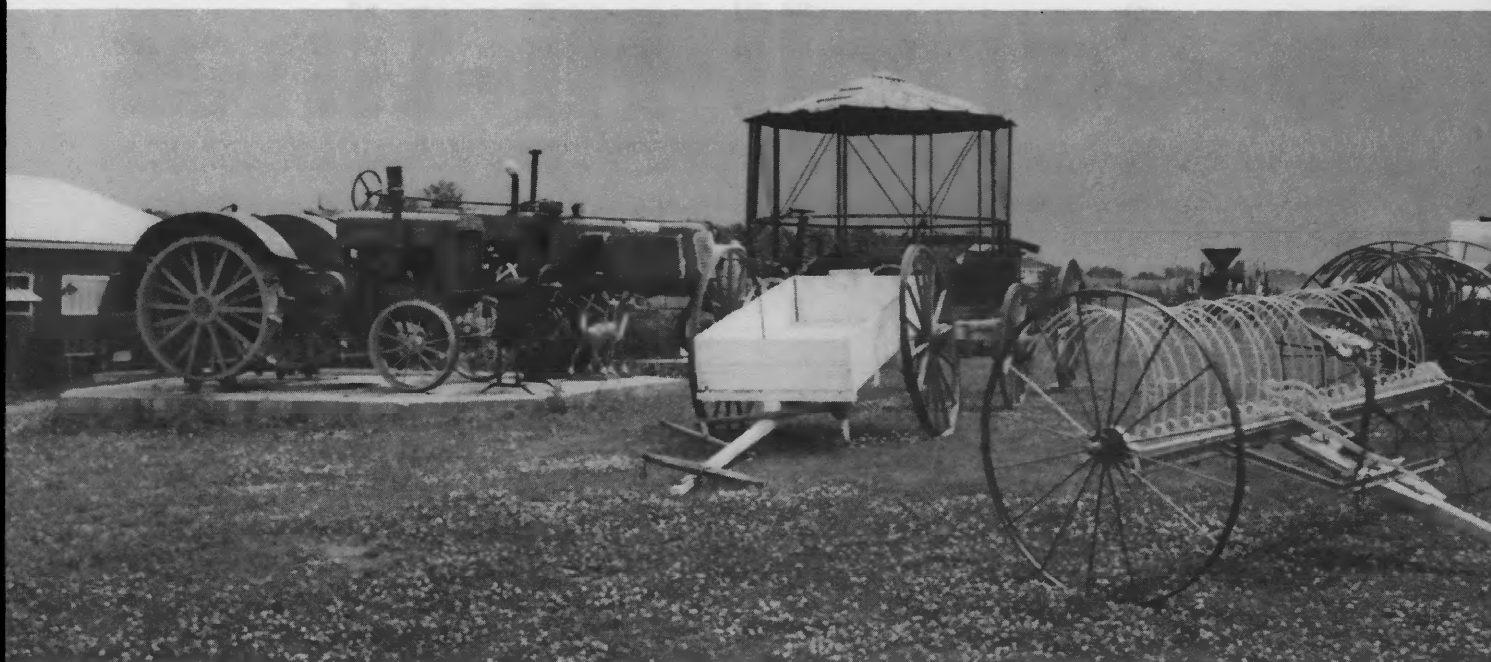
Voltage is the electrical pressure or force necessary for the flow of electrical current. Just as a pressure is needed to make water flow through a pipe, voltage must be present to make electric current flow through a wire. Although proper voltage is a necessary element for the use of electricity on the farm, when it occurs in unwanted places, it can cause trouble. Stray voltage is the term used for a misplaced, low-level electrical impulse occasionally found in dairy parlors or other livestock facilities. In most situations, this low-level voltage (usually between .5 and 5.0 volts) is too small to be felt by humans or animals. But in dairy parlors and some swine facilities, there are special characteristics which cause stray voltage to be a problem. Because water, with its ability to conduct electricity, is present, animals' feet have a good electrical connection to the earth. Any small voltage on equipment, such as milking stanchions, cattle trainers or watering cups, will be conducted to ground through the animal's body. This will not harm the animal, but may stress them and not allow dairy cows to let down their milk.

The working voltage for most farmstead equipment is either 120 or 240 volts. This is measured between the "hot" wire and the neutral wire. The third wire in the system, the ground wire, is present in case of an electrical fault or short. Normally, there is no current traveling through the ground wire, but if a fault should occur this wire will provide an "easy path" to ground and allow the fuse or circuit breaker to open and safely de-energize the circuit.

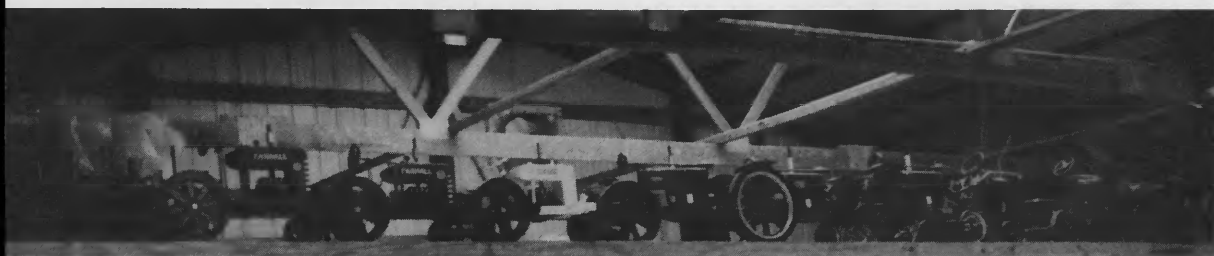
Now let's turn our attention back to the neutral wire. The "hot" wire is the "delivery" wire of the circuit and the neutral wire is the "return" wire. It is normal to have a small voltage reading (of 5.0 volts or less) on the neutral wire as compared to true ground, and normally this low voltage cannot be felt by people or animals. But in the unique environment of the dairy parlor, this voltage difference between the neutral wire and true ground, now commonly called stray voltage, has been the subject of concern by livestock producers.

Basically, this is the situation that might exist. The neutral wire of the farmstead wiring system may carry a low-level current that is harmless under normal circumstances. As required by the National Electrical Code, the neutral wire is connected to earth through ground rods and through

(Continued on page 12d)



Red's rustic farm museum has a number of antique farm items on display. In this photo is a 1929 John Deere "Model D" tractor that still operates. Other antique farm process equipment is located indoors.



Above: Old toy tractors decorate the space just above the lunch counter area in the interior of Red's Auction House, which is spacious and makes for an excellent area to have weekend auctions and the Wednesday night consignment sales. Right: This 1920's era McCormick-Deering tractor is a classic.



Red's auction house, farm museum, and blacksmith shop

When one thinks of the historic aspects of Galena, the images brought to minds are of former Civil War generals, riverboat steamers, early settlers and lead mines. The image of antique farm machinery does not readily come to mind. However, a rustic farm museum is being assembled near Galena.

Robert (Red) and Sarah Foley are assembling some old farm equipment from years of purchases that they have made in their other businesses. Red is a life-long resident of Jo-Daviess County and for years he has operated an antique store in downtown Galena. Red has recently expanded his business by establishing Red's Auction House Service at 11658 Red Gates Road. Red Gates Road is right across from McDonald's on Highway



20, and his auction house is about a mile out into the country and is served by Jo-Carroll Electric Cooperative. The Wednesday night sales often feature antiques, the remnants of estates, and many consignments. They welcome consignments and an average Wednesday night will feature a wide variety of items. The auction house is quite large so all sales are indoors, and they feature a lunch stand. They will also do weekend estate auctions.

Red's comment was, "We've gotten into the museum because of all the antique farm equipment we've bought through the years. We felt that there was some interest in this type of equipment, so we set up a walk-through museum." The museum is free, but you can make a donation if you wish. In April of this year, Don Oiler set up his Old Galena Blacksmith Shop in a building on the site, which is an added attraction.

Blacksmith Oiler draws in his 10 years experience to give classes to anyone wishing to learn the art. He will also give smith demonstrations to groups. He also creates various useful and artistic items that he sells at the Old Blacksmith Shop. Don also creates Indian artifacts which he sells at the shop.

Red's Auction House Service is an attraction in itself during sale times, but at other times the rustic farm museum and The Old Galena Blacksmith Shop make for an interesting visit. The site is located on a scenic ridge, and Red comments, "Come out for an old fashioned picnic . . . bring your basket and blanket and enjoy the country. We also have overnight camping available."

When asked about Jo-Carroll Electric Red remarked, "I've always had very good service from Jo-Carroll, both here and other locations throughout my years in the county. I had a severe storm one night that took the roof off my barn, and Jo-Carroll came right out and by about 1 a.m. they had the wire cleared and had the house back in service."

Red's phone numbers are: days, 777-9675; nights, 777-9102.



Reader prize

Each month, we print the name of a Jo-Carroll member who is eligible to win a monthly \$25 readership prize. If your name is printed in this month's edition, and not a part of any story, contact Jo-Carroll and claim your prize no later than the 10th of the month following publication.

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24 hours a day

Bill Allen is 25-year employee



Allen

June 19 marked Bill Allen's 25th anniversary of service to Jo-Carroll and its members. Bill began his work with the cooperative and was learning line work. He had hardly started when he was drafted into the Army. After his stint, Bill came back to Elizabeth and returned to work for Jo-Carroll. He has worked in all areas of line construction and maintenance, but in recent years Bill has worked on the underground crew and now serves as underground foreman.

Bill remarked "when I came back from the Army, underground electric service was a new idea—now we have over 200 miles of underground line." Bill keeps busy with some maintenance of the underground equipment, but "most of our days are spent working on new construction—seems like so many of the new homes want the underground service." Bill's comment on his anniversary day was "they have been good years so far, but you won't get rid of me yet, I'm looking forward to some more good years at Jo-Carroll." We at Jo-Carroll are also looking forward to some more years of service from Bill Allen.

(Continued from page 12a)

electrically grounded equipment and facilities in contact with the soil. All wires and electrical connections have some resistance to the flow of electrical current. Due to these resistances, whenever there is current flowing in the neutral wire, a voltage exists between it and earth. A cow's feet in contact with the wet concrete floor of the parlor provide a good electrical connection to the ground. When the animal's nose touches the stanchion or when the milking cups are applied to the udder, the cow provides a "better path" for this low voltage to return to ground. Although the farmer cannot feel it, the animal may be stressed by this low-level voltage.

This neutral-to-earth voltage difference is the most frequently cited cause of stray voltage. Other situations causing stray voltage are: induced currents, unbalanced electrical loads, improper grounding of service equipment, faulty ground rods, galvanic action, electrical shorts and primary neutral current.

When to suspect it

Unfortunately, there is no visual animal behavior unique to stray voltage stress. But as a guide, a farmer should watch for the following problems:

1. Uneven milk letdown
2. Cows extremely nervous while in the parlor
3. Cows reluctant to enter the parlor
4. Increased mastitis (infectious bacteria in the udder)
5. Reduced feed intake in the parlor
6. Reluctance to drink water
7. Lowered milk production

Donald Wilson

Although these responses may be caused by stray voltage, the farmer should first check the more likely causes. These include recent changes in herd diet, diseases, equipment sanitation problems, rough handling of animals and improperly adjusted milking equipment. The farmer should exhaust all possibilities before considering stray voltage as the cause.

Research results to date

The stray voltage situation is a complex one and there are still many unanswered questions. Since stray voltage was first identified about five years ago, several teams of agricultural engineers, animal scientists and others have been involved in answering these questions. Under laboratory conditions, the scientists have simulated the conditions of stray voltage on dairy cows. Preliminary results of these studies have shown the following results:

- Considerable variation in sensitivity to voltage seems to exist between cows in a herd.
- Although distinct behavioral responses were shown, no significant reduction in milk yield occurred when cows were given mild electrical shocks in the laboratory.
- No significant difference in milkdown or residual milk retention in the udder was observed for cows subject to mild shocks
- Somatic cell counts (indication of infection) were not elevated due to application of low-level currents.

Summary

Although more research is needed, preliminary results indicate that there is no direct connection between the presence of low voltage levels and loss of production in dairy cows. But the reaction of dairy animals to these low voltage levels (nervousness in the parlor, kicking off milkers, reluctance to eat or drink) will almost assuredly result in management problems for the dairy farmer, and could indirectly affect milk production in the herd. If you feel that you have a problem with stray voltage on your farm, we recommend you contact the Cooperative Extension Service or Jo-Carroll for assistance. Area agricultural engineers can assist you by making measurement and evaluating your farm's wiring. A milking machine representative should also be contacted to check the milking equipment. Your electric cooperative stands ready to assist you in checking out possible problems on the primary electrical system that serves your farm or your secondary farmstead wiring system.

Jo-Carroll Hi-Lines

Jo-Ca

Jo-Carroll Electric Cooperative, Inc., Elizabeth, Illinois — (815) 858-3311

MANAGER'S REPORT by Connie M. Shireman



Shireman

Play it safe during harvest

They say you reap what you sow.

If in fact actions lead to the resulting consequences, many accidents could be avoided if time is taken to think safety first.

All year-round, on the farm, in the home, or on the road, safety must be a conscious priority. Specifically during harvest time, many avoidable accidents occur in rural areas.

Modern farming requires the use of large complex machinery. Each year, a tragic number of accidents are caused by careless handling of farm equipment around electric power lines. Jo-Carroll Electric Cooperative urges you to use caution at all times — to watch for overhead power lines and utility poles to avoid any contact with this potentially lethal power equipment.

Insist that hired hands and family members learn to survey their working area carefully before operating farm equipment. Have every worker make sure the equipment he is using will not come into contact with power lines, poles or power-support equipment.

Although you may have no power lines in your fields, they are usually present in equipment storage areas and grain storage areas.

Be sure paths from equipment storage areas to fields and from fields to grain storage areas are safe routes. There should be ample clearance for combines, pickers, balers, front-end loaders, stackers or any other equipment you're moving about your farm.

If there is any question about whether equipment will clear a power conductor, assume it won't and take a different route.

More often than not, power lines follow property lines. When you reach the end of a field and turn your equipment, there's a very good chance power lines will be nearby. Always be alert to power lines along your property lines. They may even be hidden by trees or brush, so take precautions to ensure your equipment doesn't make contact.

Grain augers and bins are often used along property lines, too, since such placement makes the best use of the land. Again, be sure the augers don't contact power lines.

Crop-storage equipment such as augers, balers and stackers can be extended in height to exceed electric code clearances for power lines. Take precautions to be sure the stacking equipment won't contact the lines. It only takes one mistake to bring tragedy.

If contact is made while you are on the equipment, remain on the machine and call for help. Have a family member or neighbor call the cooperative and a crew will be sent to disconnect power.

If no one is around to help, jump free of the equipment to the ground. Be sure that at no time you or anyone touches the equipment and the ground at the same time.

Make it a safe autumn season. Think "safety first."

Help us find these members

The following is a list of former Jo-Carroll Electric Cooperative members for whom we do not have current addresses. They are entitled to receive capital credit refund checks. Capital credits are the margins, or "profits" that Jo-Carroll made in excess of the cost of providing service. Since Jo-Carroll is a not-for-profit cooperative, this "profit," or margin is returned to the members, based on their patronage with the cooperative,

If you can help us find these people or have information about their current address, please call Jo-Carroll at (815)858-2207 and ask for Helen. We will be more than happy to forward their capital credits to them.

<u>Name</u>	<u>Last known address</u>	<u>Name</u>	<u>Last known address</u>
Albrecht, Elis	Savanna	Gunkel, Ernie	Sterling
Anderson, Joseph	Savanna	Halverson, Peder	Elizabeth
Arle, Paul	Creve Coeur, Mo.	Handfelt, Walter	E. Dubuque
Aureden, Alvin	La Motte, Iowa	Hannaman, Roy	Galena
Baietto, Paul Jr.	Streator	Harkness, William	Savanna
Bauer, Al	Cuba City, Wis.	Harper, John	Barrington
Benne, Lawrence	Savanna	Harrock, Kim	Mt. Carroll
Benny, Mark	Elizabeth	Hartman, Lucy	Chadwick
Berg, Ray	E. Dubuque	Hecox, Frank	Savanna
Bolsinger, Mrs. Clifford	Elkhart, Ind.	Heim, Edmund	E. Dubuque
Brack, Fred	Galena	Humphries, Phil	Chicago
Brackett, Ronald	Hanover	Hunt, Mrs. A. J.	N. Ft. Meyers, Fla.
Buchanan, James	Polo	Hyer, Wm. Jr.	Savanna
Burbach, Mrs. Carol	Galena	Ihm, James	Murfreesboro, Tenn.
Burkart, George	E. Dubuque	Janesville Const. Co.	Janesville, Wis.
Busse Implement Co.	Galena	Jones, Sam	Chadwick
Carcaran, Nancy	Mt. Carroll	Juhngblut, James	Dubuque, Iowa
Carlson, Ed	Chadwick	Kahn, Robert	Chicago
Carr, George	Custer, S. D.	Karp, Larry	Mt. Carroll
Charles, Thomas	Ridott	Kammerude, Lester	E. Dubuque
Clark, John	Northbrook	Keating, John	E. Dubuque
Clough, Walter	Mt. Carroll	Keene, Reid	La Motte, Iowa
Colin, John	Apple River	Kelley, Emmett	E. Dubuque
Cunsworth, Richard	Savanna	Kellogg, Peter	Galena
Curley, Mrs. Leroy	Hanover	Kimpe, Romain	Stockton
Dahlin, Mrs. Geo.	Galena	Kinney, Rose	Moline
Davis, Wm. J.	Oregon	Kinney, Charles	Pompano, Fla.
De Bord, John	Dallas, Tex.	Kuhl, Joseph	E. Dubuque
Dewey, Paul	Mt. Carroll	Kunz, Ray R. Assoc.	Chicago
Dodson, Leon	Savanna	Levy, Jerry	Des Plaines
Dollar, John & Billy	Chadwick	Libberton, Richard	Ridott
Douglass, John	Savanna	Lindstrom, Ray	Mt. Carroll
Drury, Mrs. Lawrence	Fenton	Livens, Cletus	Savanna
Dykema, Larry	Mt. Carroll	Lock, John	Mt. Carroll
Erickson, Wallace & Gary	Anaheim, Calif.	Mac Devitt, John	Mt. Carroll
Eversoll, Vern	Galena	Mahaney, Kenneth	Savanna
Fabela, Manuel	Hanover	Mason, Wm.	Scales Mound
Fauver, Marge	Dubuque, Iowa	Mastores, Dr. Nicholas	Evanston
Ferguson, Delmar	Lanark	Mayer, Kenneth	Savanna
Fitzgerald, Donald	Chicago	McCray, Russell	New York, N. Y.
Frederick Cement Block Su	Savanna	McFarland, F. E.	Rockford
Furca, Charles	Columbia, Mo.	Meany, Paul	Savanna
Gardner, Alexander	Chicago	Merchant, Nelson	Mt. Carroll
George, Stanley	Rockford	Mitchell, Mrs. Geo.	Savanna
Gleason, Wm.	Galena	Montryn, Anthony	Crystal Lake
Goodwin, George	E. Dubuque	Moore, Carl	N. Augusta, S. C.
Graney, Wm.	E. Dubuque	Morgan, Harold	Mt. Carroll
Green, Arnold	River Forest	Meier, Arnold	Osprey, Fla.
Green, Bernard	Galena	Midwest Farms Inc.,	Warren

<u>Name</u>	<u>Last known address</u>	<u>Name</u>	<u>Last known address</u>
Miller, Alvin	Mt. Carroll	Sloan, Dennis	Hazel Green, Wis.
Miller, Warren	Wapello, Iowa	Smith, Allen	Mt. Carroll
Musyl, Walter	Thomson	Smith, D. Sackett	Mt. Carroll
Newman, Dr. Bruce	Hinsdale	Smith, Randy	Mt. Carroll
Niles, Carol	Galesburg	Sojka, Leonard	E. Dubuque
Olson, Robert	Stockton	Sowinski, Bruno	Western Springs
Osborn, Virgil	Savanna	Speer, Lyle	Mt. Carroll
Owens, E. L.	Savanna	Steinow, Peter	Mt. Carroll
Pelej, Mrs. L. A.	La Grange Park	Stoddard, Bernard	Morrison
Peters, Wayne	Elizabeth	Stroud, Grace	Rockford
Peterson, Orris	Stockton	Sullivan, Paul, Jr.	Northbrook
Petritis, John	Russellville, Ark.	Svendsen, Erl	Itasca
Petsche, Marvin	Galena	Swift, Howard	Savanna
Pfile, Ronnie	Georgetown, Tex.	Tryba, Ray	Aledo
Plum River Farms Co.	Lincoln	Van Buskirk, George	Mt. Carroll
Pontack, Clifford	Freeport	Van Kampen, Leon	Lanark
Powers, Luther	Hanover	V & E Construction Co.	Galena
Rauwolf, Mary	La Mesa, Calif.	Waller, Harold	Elizabeth
Redman, James	Holy Cross, Iowa	Walters, Garth	Elizabeth
Richards, Helen	Cedar Falls, Iowa	Weems, Robert	E. Dubuque
Robinson, Ralph	Elizabeth	Weiler, Robert	Tucson, Ariz.
Rodriquez, Consepcion	Hanover	Weinger, Adam	Chadwick
Rolnicki, Syl	Galena	Whisker, Jesse	Leesburg, Fla.
Ross, Gerald	Herlong, Calif.	White Advertising Co.	Ashland, Neb.
Sanderson, Arthur	Thomson	Wienen, Robert	Galena
Schomer, Dorothy	Clinton, Iowa	Willis, Harold	Warren
Schurmeier, L.H.	Green Valley, Ariz.	Wolfe, E.	Savanna
Schutjer, Richard	E. Dubuque	Wubbel, Ray	Elizabeth
Schweitzer, M. G.	Savanna	Yeager, Herman	Galena
Searle, Marvin	Savanna	Zemke, Fred	Davis
Siedmalis, Ernest	Mt. Carroll	Zipse, Roland	Benton, Ky.

An outlet that can save your life

A ground fault circuit interrupter (GFCI) is a type of electric outlet that is now required by the National Electric Code in bathrooms, kitchens, basements, garages and outdoors. There is a good reason for this requirement. The GFCI can save your life.

Because your body is extremely sensitive to electric current, only a device as sensitive as you are can give you the protection you need from accidental electrical contact. The GFCI continuously monitors the current flowing to and returning from appliances. As long as the amount of current returning from the appliance is equal to the amount that went in, the GFCI does nothing.

However, if all the current doesn't come back, then some of it is taking a path to the ground and creating a hazard. When the GFCI senses this condition, it cuts off the flow of electricity.

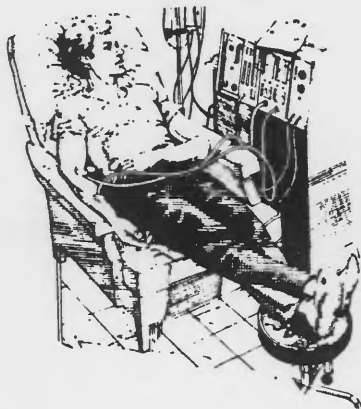
Don't be lured into a false sense of protection however, because a GFCI does not prevent shock. It protects you by limiting the duration of a shock. Also, you don't want to bet your life that the GFCI is working properly. Electric current is always seeking a path to the ground. When you touch a live appliance or tool and a ground at the same time, you could become a path to the ground. Again, even with a GFCI you can still feel a shock, but because the GFCI works so fast, the shock, in most cases, will be over before serious injury can occur.

Joe Leitker

About 500 people are electrocuted every year, about 151 in domestic electrocutions involving household wiring and appliances. That may be a small amount of fatalities when compared to highway accidents, but it's still too many. That's why GFCIs are needed and required in the new National

Electric Code. If you have an older home, we highly recommend installing GFCIs, especially in bathrooms, kitchens and work areas. Electricity makes our lives so much easier, but it can be a dangerous servant when not treated with respect. It needs to be watched carefully. That's a job a GFCI can help do for you.

Life-support equipment



Jo-Carroll Electric Cooperative strives to maintain the best possible service to all of our members. Uninterrupted service would be a manager's dream — never an outage call. In reality, though, there are many factors present in the environment that are working against that dream: wind, lightning, ice storms, faulty equipment, trees, animals, and vehicles are a few examples of things that come into contact with the line to cause outages. In addition, many of the maintenance jobs that our crews perform require the line to be de-energized. These are planned outages and are usually quite short. Nevertheless, if someone were dependent on life-support equipment that operates on electric power, the planned outage could be very serious.

Below is a clipout form to return to us if you are utilizing such equipment, as well as the steps to take in case of an outage. Your cooperative needs to know the names and locations of our members on life-support equipment, and we keep a registry of these on file in our office. We will make every effort to give priority to restore service on life support systems.

Life-support registry

If you or a members of your family depend on life-support equipment, please fill out the form below and mail to us.

Name _____

Phone _____

Address _____

Location number _____

Type of support equipment _____

Days of use _____ Time of use _____

Do you have an emergency standby generator to operate this equipment?

Yes _____ No _____

Mail the above form to:

Jo-Carroll Electric Cooperative, Inc.
P.O. Box 390
Elizabeth, IL 61028

Reader prize

Each month, we print the name of a Jo-Carroll member who is eligible to win a monthly \$25 readership prize. If your name is printed in this month's edition, and not a part of any story, contact Jo-Carroll and claim your prize no later than the 10th of the month following publication.

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24 hours a day

Jo-Carroll Hi-Lines

Jo-Carroll Electric Cooperative, Inc., Elizabeth, Illinois — (815) 858-3311

MANAGER'S REPORT by Connie M. Shireman



Shireman

Jo-Carroll honored at statewide meeting



A director of Jo-Carroll Electric Cooperative, Vernon C. Law of Savanna, has been re-elected secretary of the Association of Illinois Electric Cooperatives (AIEC). The election took place August 27 in Springfield. The AIEC is the service organization representing the 26 electric distribution cooperatives and two generation and transmission cooperatives throughout the state.

During the 1992 Annual Meeting of the Association of Illinois Electric Cooperatives August 25-27 in Springfield, Jo-Carroll was recognized several times, for several different reasons. Having Jo-Carroll, and Jo-Carroll employees and directors receive awards and recognition is very satisfying to me as the manager of the cooperative. I am proud of our employees and directors, and it is pleasing to see them get the recognition they deserve.

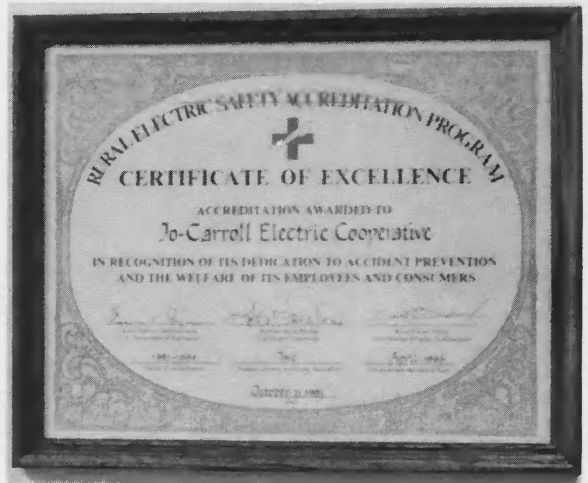
A number of employees and directors were named for individual accomplishments, and the articles and photos appear in this issue of the Illinois Rural Electric News. The group accomplishment that represents a commitment from the board and hard work from all the employees is the Safety Accreditation Award. This award also saves money for all the cooperative members in reduced insurance premiums.

Annually, only a select few cooperatives nationwide are recognized for their outstanding safety records. Jo-Carroll Electric Cooperative was one of five Illinois electric cooperatives to earn certification this year. The honor is presented through the Rural Electric System Safety Accreditation Program, sponsored by the National Rural Electric Cooperative Association.

This certification symbolizes our belief that safety is of the utmost importance in providing service for our members.

The cooperative earned safety certification by going through a lengthy examination process, which required an extensive effort by the management, directors and employees. Three outside evaluators conducted a thorough study of the cooperatives' safety program, facilities, vehicles, equipment and pole yard. The cooperative also had to demonstrate a very low injury-frequency rate for three years.

With the completion of these evaluations, the cooperatives received and implemented a number of suggestions which should ensure further achievements in safety in the future.



The safety accreditation certificate

Reader prize

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John W. Selleck of Galena, David G. Hughes of Elizabeth, John W. Janssen of Chadwick and Blenda D. Wiene of Galena have received professional certification from the National Rural Electric Cooperative Association (NRECA). Hughes, Janssen and Wiene are directors of Jo-Carroll Electric Cooperative, Elizabeth, and received Professional Directors Certification, and Selleck, assistant manager of Jo-Carroll, received Management Certification at the 51st Annual Meeting of the Association of Illinois Electric Cooperatives (AIEC) in Springfield August 25-27. They completed a series of required training and educational courses plus additional credits in order to receive the certifications. The presentations were made Wednesday, August 26. From the left are Selleck, Hughes, Janssen, Wiene, Connie M. Shireman of Elizabeth, manager of Jo-Carroll Electric and chairman of the Continuing Education Committee of the IEC Managers' Association, and Thomas H. Moore, executive vice president of the AIEC.

Employees honored for service

Two employees of Jo-Carroll Electric Cooperative were honored for 25 years of service during the annual meeting of the Association of Illinois Electric Cooperatives August 26 in Springfield. Judy A. Williams, assistant office manager and bookkeeper, and William J. Allen, foreman, were among 40 electric cooperative employees from across the state honored.



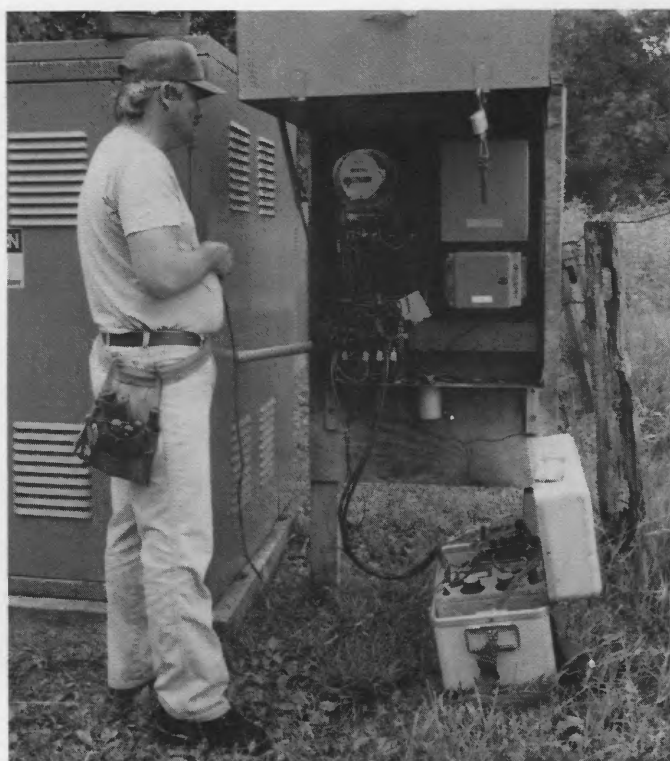


Local farms used in statewide television ads

Two Jo-Carroll-served farms were the sites of filming for a statewide television ad campaign for an insurance company. One farm was in Carroll County, and one in Jo-Daviess. During the filming on both sites, local area residents were used as actors. The film crew consisted of more than 30 individuals from Colorado and California. In this photo, the crew is filming a farmer herding a ewe into the barn. It will be interesting to watch TV this fall to see if our area is recognizable.

Three-phase meter testing completed this summer

The Electric Laboratories and Sales Corporation of Mattoon tested, cleaned and calibrated each of Jo-Carroll's three-phase meters this summer. The three-phase meters are used on large-power installations or on grain dryers. A few problems were corrected, but overall the meters were accurate and in good condition. These meters are tested every three years, and the residential, single-phase meters are tested every 10 years. Meter accuracy is very important to your cooperative, since these serve as our "cash registers." Each meter socket is sealed, both to prevent anyone from tampering with the equipment, and as a safety measure. Carl Bridges of Electric Labs tests and inspects a large-power meter during the meter test this summer.



Living habits determine your electric bill

Few people check gasoline mileage with their neighbors. Likewise, we never hear of people checking grocery bills or other general living costs with neighbors. Yet it seems to be a habit to check with your neighbors as to electric bills.

"Why is my light bill higher than my neighbor who lives across the road when he has the same appliances I do?" This question is often asked by consumers.

There is no way to check your bills with your neighbor. Many reasons can be given why one family may use more electricity than another family using the same appliances.

1. One refrigerator door may be opened twice as often. Each time the door opens cold air rushes out and the unit must run more to replace it.
2. Some think 60- or 75-watt bulbs are sufficient while others use 100- or 150-watt bulbs in every socket.
3. One family might retire at 9 o'clock while another watches TV until after midnight.
4. No two families have the same amount of washing and no two women wash the same way.
5. One may iron one day a week while the other may iron a few pieces or press something every day. Each time the iron cools and is reheated, more electricity is used.
6. Some use the electric range to "take the chill off the kitchen." This is high-priced heat and can run your bill up, since a range is not designed for home heating.
7. One family may have inadequate wiring and the other a good wiring job. Voltage drop in poor wiring reduces the efficiency of appliances and wastes electricity.

Now let's be fair. These are only a few of the human elements that enter into comparing electric bills. Won't you agree that no two families live alike or have the same habits, so the amount of electricity used will vary with the family?

Your meter is just like your neighbors'. It is a highly efficient machine that records the kilowatt-hours used. One time in hundreds of tests a meter is operating inaccurately; but, in most instances, the meter is slow rather than fast.

Michael Zygmant

Water bed will use electricity

Many people are not aware of the cost of operating a water bed. A water bed is basically a water heater, due to the fact the heating pad lies under a water-filled mattress to bring the temperature up to a comfortable temperature. The average heater for a water bed draws between 250 and 400 watts, depending on the size of the bed.

Many complaints about high usage have been traced to a newly purchased water bed that is using 200 to 300 kilowatt-hours per month. There are several things that will determine what the amount of increase will be: (1) how warm you prefer the bed to be, (2) the temperature of the room in which the bed is located, and (3) whether the bed is protected with insulation.

The third item is one that most people never think of doing. Insulation board such as one-half-inch polyurethane is the best material to use. Generally, it will easily fit between the mattress and the bed frame and will change the height of the bed very little. You must also remember to keep the mattress covered completely with warm bed coverings at all times to help retain the heat in the water. The less heat lost from the mattress, the less it will cost to operate the heater.

MANAGER'S REPORT by Connie M. Shireman



Shireman

Co-ops: pooling people power

October is Cooperative Month, the time of year that cooperatives are recognized as a unique form of doing business. In the rural areas many types of cooperatives are common, and in the urban areas the cooperative idea is becoming increasingly popular. Those providing consumer goods such as food, electricity and feed are not the only types of cooperatives. The advent of cooperative apartment buildings and cooperatives formed to provide legal, health and insurance services, as well as credit unions, have swelled the number of cooperative members in the United States to more than 60 million. They are not always small businesses either; such large and well-known companies as Sun-Kist and Land O' Lakes are also cooperatives.

But what is a cooperative? And how does it differ from other forms of doing business?

Cooperation is a simple idea really. Two could lift a tree when one could not. A dozen could erect a fort or a church; two dozen could build a ship and skid it to the water. Together, people could protect a home, or a community, or a way of life.

Today's cooperative stands squarely on this idea. It is fashioned as a firmer structure than yesterday's neighbor-plus-neighbor threshing bee, but the leverage of the idea is still the same as the leverage brought to bear when two backs bent to the task of moving a fallen tree.

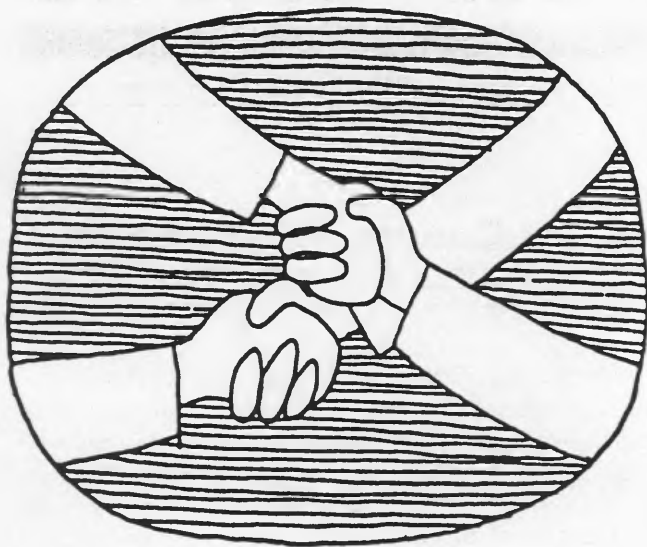
Simply put, it's a pooling of people power—muscle power, thinking power, bargaining power.

The cooperative business differs from other forms of doing business in many ways, with local control of a member-owned organization, resulting in a situation in which the aims and objectives of the cooperative are one and the same as the member-owners', versus the profit motive of other businesses. The cooperative principle can be identified by six "trademarks."

1. Democratic control, expressed on the basis of one member one vote.
2. Open membership, indicating the cooperative membership should be open to those who have reasonable use for the service offered, and must never be denied on grounds of race, religion, sex or national origin.
3. Limited return on investment, eliminating the likelihood of speculation in cooperative stock and emphasizing service rather than profit.
4. Return of margins to owner-members in proportion to their use of the cooperative's services.
5. Continuing education, recognizing that cooperative owners will not value and support something they do not understand.
6. Cooperation among cooperatives to stimulate mutual support among the various kinds of user-owned organizations sharing the cooperative purpose.

In this issue of Hi-Lines, we examine Jo-Carroll Electric Cooperative, and how it measures up to these principles.

Jo-Carroll: your cooperative



Democratic control

Cooperative control is firmly in the hands of the members, the owners. Perhaps their most significant responsibility is to elect sound thinkers and planners from their number to serve on the cooperative's board of directors. Jo-Carroll's service area is divided into nine separate parts, called districts. The members within each district elect someone from their local area for a three-year term as director. The board then establishes the general policies under which the cooperative will operate, meets regularly to determine that the manager and employees that the board engages are conforming to those policies, and arranges to report directly to the membership each year at the annual meeting. This form of member control is very similar to the American form of government. This opportunity to participate, to have something to say in the cooperative, to make decisions, is the true value of the cooperative — a clear emphasis on the importance of the individual. Jo-Carroll members even had the opportunity to decide whether to build a headquarters facility and where to build it. This type of participation in forming organizational judgments is rare in this country's standard business practice.

Open membership

Jo-Carroll provides service to anyone, for any reason. It does not discriminate. But who makes up the membership of Jo-Carroll? The 1,100 miles of electric distribution line stretches from East Dubuque to Chadwick, and our membership is quite diverse. Using an REA report from the month of August 1992, the membership breaks down like this:

<u>Class of Service</u>	<u>No. of Meters</u>	<u>KWH used</u>
Farm and farmhouses	913	931,889
Residential homes in country	1,998	1,439,023
Apple Canyon Lake	486	306,128
Galena territory	1,039	675,764
Pioneer Acres	235	146,144
Small commercial	273	538,203
Large commercial (peak alert)	4	828,300
Totals	4,948	4,865,451

These figures are for August only, and they don't show two meters on the same location. Total number of meters in August was 5,158. The kilowatt-hour usage for each class will vary with the seasons, as in the fall the farms category usage will increase with the harvest drying and storage of crops, and the large commercial (peak alert) use in the winter. Residentials will increase the kilowatt-hour use during hot weather and air conditioning season. A diverse group of cooperative members joined together for the common purpose of receiving electric service, sharing in the ownership of their cooperative.

Non-profit business

Jo-Carroll has indeed a limited return on investment. In fact, we are a non-profit organization, incorporated under the Illinois Not-for-Profit Corporation Act. Many other businesses are owned by shareholders, who buy stock in the companies with the intent to make



money from their investment, based on the sale of their products to customers. The people that are connected to Jo-Carroll lines are not only consumers of a "product," electricity, they are also owners of the business. The terminology even differs.

As a general rule, electric cooperatives refrain from the use of the word "customer" when referring to members. In a broad sense, a "customer" is one who buys from, or patronizes, an establishment. In an electric cooperative, the members do



not "buy" from the cooperative, but receive service from or are patrons of, the cooperative — and share in the costs incurred by the cooperative by their patronization.

Return of margins

The cooperative business structure is different. Rather than returning the money a business earns to an unknown investor, the co-op profits, — called margins — are returned to the owners who also use the cooperative's services. Every dollar of payment by an electric cooperative member in excess of the cost of providing electric service becomes part of the capital of the cooperative.

Capital credits, margins or equity in the cooperative's system is credited to the individual member's account according to the member's total yearly patronage with the cooperative. Capital credits, then, are allocations of margins to individual members, based in direct proportion to each member's contribution to the margins realized.

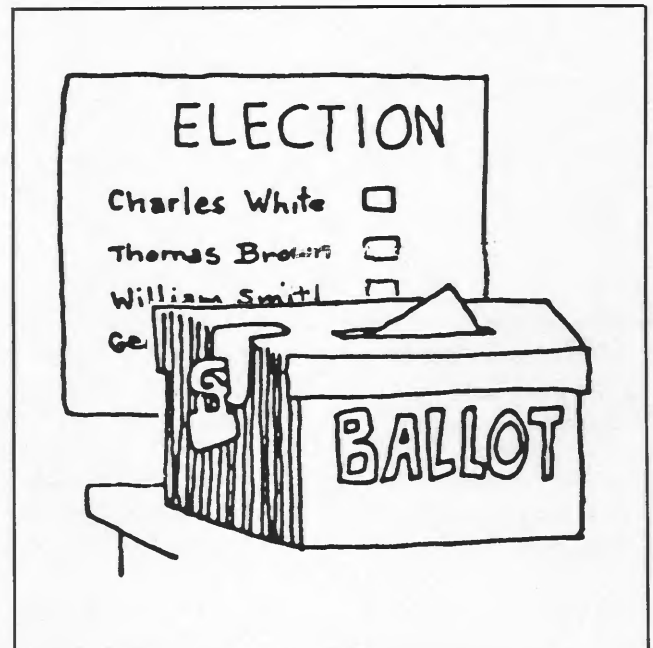
This year, Jo-Carroll will return margins accumulated during the year 1969 to those who received service in 1969. The total amount to be returned is \$121,148.45. Checks will be mailed directly to qualifying members during December.

Continuing education

Jo-Carroll may be guilty of not providing enough education to our members with regard to the cooperative principles, and this is an attempt to change that. Through the Illinois Rural Electric News center pages we have focused on many topics, and we will continue to do so, but we have a responsibility to educate the new and younger members of Jo-Carroll. A new-member handbook is sent to those joining the cooperative. Increased activity with the schools and area newspapers and media is being planned, to educate not only our members, but also the general public, whose opinion is also valuable.

Cooperation

The vast majority of Jo-Carroll's expense is for the purchase of wholesale power for distribution to our members. We purchase all of this power from another cooperative, Dairyland Power Cooperative. We also purchase much of the line materials such as transformers and poles from yet another cooperative, the Rural Electric Supply Cooperative. We are members of the National Rural Electric Cooperative Association and the



Association of Illinois Electric Cooperatives. All of these offer Jo-Carroll the benefits that all cooperatives offer their members. Also, we belong to two labor-pooling groups that can be important during emergency situations such as ice storms or tornadoes. In the event of a natural disaster, these cooperative groups will provide assistance in the form of men and materials, at cost, until the emergency is over.

Load management tests scheduled

The radio-controlled load management program will be tested in November by Jo-Carroll Electric Cooperative and Dairyland Power Cooperative. These tests provide valuable information to the cooperatives about the upcoming load control season, and can also serve our members as a "test run." Please call Jo-Carroll if you experience any problems with your controlled electric water heaters or dual fuel systems. Members who do not participate in these programs are urged to call Jo-Carroll and get "signed up." Your participation benefits all of Jo-Carroll's members.

Water Heaters

Morning

Dates: November 4 and 10

Alert: 7:30 a.m.

Control: 8 a.m.

Restoral: Begins at 10:30 a.m.

Evening

Dates: November 4 and 10

Alert: 6 p.m.

Control: 6:30 p.m.

Restoral: Begins at 8:30 p.m.

Dual Fuel

Dates: November 12 and 17

Alert: 2:30 p.m.

Control: 3 p.m.

Restoral: Begins at 9 p.m.

Help us credit your account properly

When paying your bill by mail, please send the stub from your bill, or write a note indicating to which account the payment should be credited. In the past we have received checks in the name of an individual who may have more than one account, or have the bill in some other name. By sending in the stub, we can be sure that the payment is credited to the proper account. If the stub is not available, please include a note indicating to which account the payment should be credited.

If it blinks — it's working

Jo-Carroll Electric is served by a complex system of electric distribution lines subject to many possible occurrences that cause momentary outages or "blinks."

Blinks in your electric service are usually an indication that something has come in contact with the electric lines. Usually these problems can be traced to tree limbs, squirrels, birds, lightning and even cattle or horses rubbing against the guy wires. When the electric line senses a problem, the breaker (which is located on the power line) goes into operation. The breaker will shut the line off for just an instant so the line may clear itself. If it doesn't clear the first time, it may blink two or three times before it shuts the whole line off. Then, a cooperative line crew will be dispatched to clear the line. Were it not for these breakers out on the lines doing their jobs, lines and substations could be destroyed, causing many consumers to be without power.

We realize these blinks are a nuisance to our member because of the need to reset digital clocks and VCRs, etc. However, these blinks are a blessing in disguise. If it were not for the oil-filled reclosers (automatic circuit closers that reset after the blink), each of these instances may have been a long outage. Jo-Carroll Electric regrets these inconveniences, but is pleased that not all "blinks" were lengthy outages.

Electronic equipment such as microwave ovens, digital clocks, VCRs and computers are so sensitive that the slightest blink may cause interruptions. All electric utilities experience these brief outages, and these appliances are the biggest "tattletales" for electric utilities. In most cases, if it were not for the clocks you would never know the power had "flickered" or gone off for a short time.

We have no control over squirrels, birds, lightning, cattle and horses, but we can have some control over trees and tree limbs. If you see limbs on the main lines, please contact us — we'll be out to cut the limbs out of the lines.

Remember — the next time you see your lights blink, you know the system is working right!!

Roger Becker

Office hours

7:30 a.m. to 4 p.m.

Monday through

Friday

Outages and emergencies

call 858-3311

24 hours a day

Reader prize

Each month, we print the name of a Jo-Carroll member who is eligible to win a monthly \$25 readership prize. If your name is printed in this month's edition, and not a part of any story, contact Jo-Carroll and claim your prize no later than the 10th of the month following publication.

Jo-Carroll Hi-Lines

Jo-Ca

Jo-Carroll Electric Cooperative, Inc., Elizabeth, Illinois — (815) 858-3311

MANAGER'S REPORT by Connie M. Shireman



Shireman

Who knows who owns the electric company?

Americans don't pay much attention to what kind of business provides their electricity, according to a recent survey. But when they are asked to compare how utilities do their jobs, consumer-owned cooperatives come out ahead of investor-owned and publicly owned systems.

Researchers for The Roper Organization, which conducted the survey, suggest that people know relatively little about their electric utility because they are largely satisfied with the service they are getting. More than 80 percent say they are very or reasonably satisfied with their electric service — a higher degree of satisfaction than they indicate for their local telephone or cable TV services.

The survey on attitudes toward rural communities and businesses was commissioned by the National Rural Electric Cooperative Association, the Washington, D.C., service cooperative for the nation's 1,000 consumer-owned electric utilities.

The survey found that only 35 percent of Americans say they have heard of rural electric cooperatives, which are owned by their consumers. Forty percent say they have heard of electric companies that are owned by investors and 54 percent have heard of publicly owned electric companies, such as municipal utilities.

In fact, large majorities of Americans admit they know little about any type of business, including cooperatives. Only about 3 in 10 Americans say they know a great deal or a fair amount about any type of businesses asked about: investor-owned; publicly owned; employee-owned; or consumer-owned, such as cooperatives.

But of those who say they have heard to some degree about cooperative businesses, attitudes are overwhelmingly positive: 71 percent say they have generally positive feelings about cooperatives.

Electric cooperatives enjoy a high degree of consumer satisfaction, better than any other type of electric utility, according to the survey. For people who say they are served by electric co-ops, solid majorities rank co-ops highest of the three types of utility ownership in terms of the amount of influence consumers can have, fairness of rates, concern for the environment, management efficiency, dependable service, and fairness of "profits" (the term "profits" doesn't technically apply to electric co-ops, since net income is termed a "margin" and is returned to consumer-owners as capital credits or patronage refunds.)

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Jo-Carroll's 'Light Savers' program

Thomas Edison built the first practical light bulb. It used a filament that glowed a bright yellow under electric current. Today, incandescent bulbs come in many sizes, shapes, even colors. But they share one common problem — low efficiency. Only about 10 percent of the electric energy used by an incandescent bulb is used for light. The rest is given off as heat.

Many consumers realize that fluorescent lighting is much more efficient than incandescent — three to four times more efficient. But until quite recently, the availability of the new technology called compact fluorescent lamps has been limited. That's changed with today's compact fluorescent lamps.

Why is Jo-Carroll involved in this promotion?

Jo-Carroll Electric Cooperative is promoting this type of lighting because it provides better value to you, our members and owners. Wider use of fluorescent lighting helps delay the need to build new power plants and offers you the potential to reduce your electric bill.

Modern compact fluorescent lighting is available in styles that fit in many existing fixtures. Fluorescent lights offer the further advantage of much longer life. Although fluorescent lamps cost more at first, they outlast incandescent 10-13 times. Most last 9,000-10,000 hours in household usage. They are cheaper over their lifetime and provide savings in electricity, replacement cost, and air conditioning load.

To help introduce compact fluorescent lighting, your cooperative is selling these products at special low promotional prices. At these prices you should seriously consider replacing incandescent lights in places where lighting is needed for several hours a day. Jo-Carroll will provide a catalog. You can then find the size and light output you need. Then check the price list, which is attached to the order form.

More than three times as efficient

Remember that the term "watts" refers to the energy consumption of the unit, not to its light output. The more efficient the unit, the lower the wattage for the same output. For example, a 13-watt fluorescent will probably replace a 40-60 watt incandescent. The catalog will help you make comparisons between incandescent and fluorescent replacements. Check the dimensions of the lamps carefully to be sure they will fit your intended use. Harp adaptors are available in this offer for use with lamps where the harp may interfere with use of this bulb. Note: Compact fluorescent lamps should not be used in fixtures with dimming controls or in emergency lighting circuits.

Certain other points are important for you to know before ordering. For

some of these products, the lamp is a one-piece bulb-ballast combination. At the end of its life, the entire lamp is replaced. There are also two-piece lamps with replaceable tubes. When necessary, you replace only the tube.

The lamps have either magnetic or electronic ballasts. The magnetic ballasts are less expensive but heavier. Electronic ballasts generally cost somewhat more but weigh less and avoid the "flicker" effect when the lamp is first turned on.

Dick Felter

Other conservation products

In addition to the lamps, the catalog also includes a water- and energy-saving showerhead. It will not only reduce the amount of water you use, but will cut down on your water-heating cost while providing an invigorating shower. The savings with this showerhead may be as much as several dollars a month, depending on your shower usage. This showerhead will also reduce the possibility of running out of hot water.

The catalog also includes a harp extender to allow more space for fluorescent conversions with existing lamps. There is also a socket adapter for deep lamp sockets that otherwise cannot accommodate a fluorescent system.

Make a choice for the environment

Because they use far less energy to operate, compact fluorescents not only save money but reduce emissions into the atmosphere. You can help make a difference!

Here's a glossary you'll find enlightening:

Watt: A unit of electrical power.

Lumen: A unit of light. When you measure a bulb's brightness, you are really measuring lumen, not watts.

Incandescent bulb: Your average, everyday light bulb in which a filament gives off light when heated by an electric current.

Fluorescent bulb: A tubular bulb coated on the inside with fluorescent materials (phosphors) that give off light when electrically stimulated.

Compact fluorescent: A fluorescent bulb that is small and coated with different phosphors than a regular fluorescent bulb. These usually provide the same warm-colored light as incandescent bulbs but use far less electricity. Note: Compact fluorescents must be used in conjunction with a ballast.

Ballast: A device that regulates the voltage and current used in the start and operation of a fluorescent bulb. It is the ballast portion of a compact fluorescent unit that screws into the fixture socket. Ballasts use approximately 2 to 5 watts of electricity.

Twin-tube bulb: A compact fluorescent consisting of two parallel, interconnected glass fluorescent tubes mounted on a base that plugs into a ballast.

Quad-tube bulb: A compact fluorescent consisting of four shorter, interconnected glass fluorescent tubes.

Modular fluorescent: A light source consisting of a replaceable compact fluorescent bulb that plugs into a reusable ballast.

Integral fluorescent: A light source in which the compact fluorescent bulb and the ballast are manufactured as one unit, with no replaceable parts.

Hard-wired: A type of electrical hookup made by directly connecting the electric wires to the light fixture.

Fixture: Any housing that contains a bulb and a ballast and is connected to a power source. A complete light source.

Time for weatherizing your home is now

We all know it is expensive to heat and cool your home. By making a few improvements around the house, you can reduce these costs. Efficient energy utilization and conservation are the keys to saving money.

More than half the heat that escapes from the house is through cracks and loose-fitting windows and doors.

Weatherstripping materials will reduce air infiltration around these areas. There are various types of materials that you can use for weatherstripping. These materials have a wide variety of life, durability, and cost. Most of these materials are easy to install. The best ways to decide what is most

suitable for your home is to visit a hardware or a building supply store.

Caulking loose-fitting windows and doors is another way of preventing air loss. Caulking compounds are materials used to fill, cover, and seal cracks and construction joints. Again, there are several types of caulking compounds from which to choose. With caulking, one needs to also consider the adhesiveness and the type of application that will work best. Replace old caulking that is cracking or flaking. Clean out old joints first to get good adhesion. Caulking can be accomplished with a few low-cost tools and a little practice to get a good seal. Be sure to follow the manufacturer's instructions.

As a general rule, apply caulking wherever two different materials or parts of the house meet. Some of these are:

- Exterior joints where windows and door frames meet siding.
- Corners formed by siding
- Where exterior masonry fireplace chimney meets siding
- Where porch meets siding
- Joints between foundation and wall siding
- Where the sill plate meets the foundation
- All other exterior openings

Again, efficient energy use and conservation is the key to saving energy dollars. By using these weatherstripping and caulking procedures, you will stop air and moisture infiltration into your home. These procedures will greatly decrease your home's heating and cooling bills.

“Remember — If you have a 1/16 inch crack around a standard door, this will let in as much air as a hole in the wall this size!”

HOLIDAY GREETINGS

Office closings

The offices of Jo-Carroll Electric will be closed November 26 and 27 for Thanksgiving and December 25 for Christmas.

Jo-Carroll Hi-Lines

Jo-Carroll Electric Cooperative, Inc., Elizabeth, Illinois — (815) 858-3311

MANAGER'S REPORT by Connie M. Shireman



Shireman

Board election

One of the most important aspects of a cooperative is the democratic election process that decides which of the cooperative's members will serve on the Jo-Carroll board of directors. Prior to the annual meeting, a special mailing is made to elect the directors for a three-year term. Only the members who receive electric service in the district may vote for the director from their district, on the basis of one vote per membership.

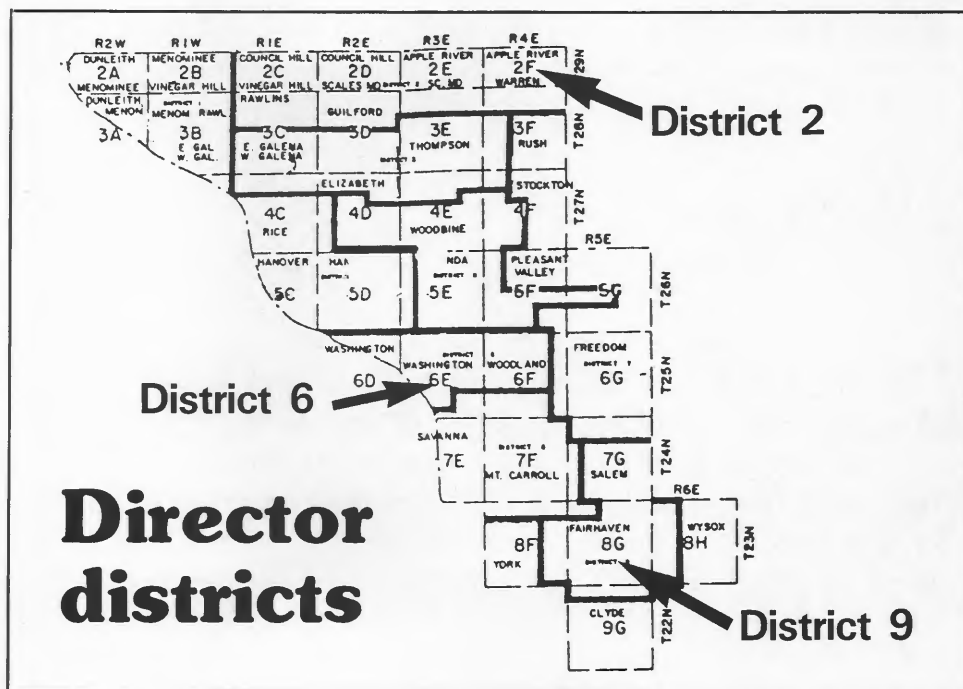
The nominees who will appear on the ballot are chosen by a nominating committee of Jo-Carroll members. This year's nominating committee will meet at the headquarters building Wednesday, January 3, to submit the names, and any interested parties should contact this committee. Directors are to be elected in Districts 2, 6, and 9 this year.

Members of the committee include:

DISTRICT 2: (Incumbent: Blenda Wiene) Nancy Bradshaw, 4413 W. Stagecoach Trail, Galena; Harold Kelcher, 6905 N. Hill Rd., Scales Mound; and Elmer Krug, 1120 W. Schapville Rd., Scales Mound.

DISTRICT 6: (Incumbent: Tom Lundy) Wayne Haas, RR 1 6068 Ridge Road, Savanna; James Foley, RR 3 5445 N. Airhart Rd., Savanna; and Kenneth Knapp, RR 1 6003 Camp Creek Rd., Savanna.

DISTRICT 9: (Incumbent: John Janssen) Arden Anderson, RR 1, Chadwick; Lyle Cartwright, RR 2, Chadwick; and David Schneider, RR 2 Box 78, Mt. Carroll.



Your Cooperative is Now Offering

PEACE OF MIND

with

The "MainStreet Messenger"

A One of a Kind Telephone and Emergency Response System

WE ASSURE YOU - YOU HAVE NEVER SEEN A PHONE LIKE THIS BEFORE!

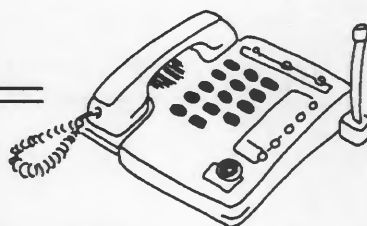
- Large illuminated dialpad flashes with incoming calls.
- Speaker phone is high quality.
- The wireless pendant will summon help even if you are a distance away.
- Reminder button will let you know when it's time to take your medications.



HOW THE MESSENGER SERVICE WORKS W



Pushing the button on the wireless pendant immediately sends a signal to the Messenger telephone.



The Messenger is pre-programmed with the emergency number of the monitoring center.



The signal is received at the monitoring center where critical information regarding your medical history, medications and location of your home are kept.

New program to provide essential service

Jo-Carroll Electric Cooperative is offering a new, unique service to allow senior citizens and other persons with special needs to maintain their independence and confidence. The latest technology in personal emergency response equipment is now available to all persons in our area, along with a professionally staffed monitoring center through the cooperation of your electric cooperative and local hospital. It is called "MainStreet Messenger."

The fee-based service involves the installation of a "smart" telephone in your home. The telephone has a large, illuminated dialpad. Visual ringing and memory keys accommodate vision, hearing and dexterity problems to ensure easy, accurate operation. By wearing the pendant provided, help is within your reach 24 hours a day, every day!

With the push of a button in an emergency, the telephone automatically dials the Cooperative Response Center (CRC). The CRC is an electric cooperative-owned facility located in Austin, Minn., that is staffed 24 hours a day and will dispatch emergency response teams directly to your home in case of an emergency.

We strongly believe our participation in this new program will allow many of our senior citizens to continue living in their homes and maintain their independence with peace of mind for both them and their families. The service is available through Jo-Carroll Electric to all persons living in northwest Illinois.

Jo-Carroll Electric, as a founding member of the CRC, will also be reviewing other services that could become available to you in the near future. Some examples of these potential services include confinement building environment monitoring, home and farm security monitoring, Childwatch (a safeguard to children who come home to an empty house) and many more.

When You Need Help:



After confirming the nature of emergency, help is dispatched immediately to you via the two-way voice speaker. Qualified help is dispatched immediately.

The Cooperative believes the "MainStreet Messenger" is the best personal emergency response system available.

With the Messenger, seniors and people with special needs can maintain their independence in confidence, knowing help is just a pushbutton away.

JO-CARROLL
Electric
COOPERATIVE, INC. - ELIZABETH, ILLINOIS

For more information contact Jo-Carroll Electric at 815-858-2207.

Capital credit return

The Jo-Carroll Electric board of directors voted in November to return capital credits totaling \$121,148.45 to members who received electric service from the cooperative in 1969.

Capital credit returns are a cornerstone of a non-profit, member-owned electric cooperative in that the members have an opportunity to share equally in the success of the cooperative, based on patronage. If an electric cooperative has any excess after paying expenses in a given year, this money, or margins, is held in an escrow account until the time when the cooperative's board deems that the financial condition of the cooperative is strong enough to return the margins to the membership.

Richard Reusch, president of the Jo-Carroll board, said, "We are very pleased to be able to retire the patronage capital from 1969 at this time. The Jo-Carroll board is striving to keep the cooperative in a strong financial position while allowing the members to share in the success of their electric cooperative." The amount each of the members spent for electricity at Jo-Carroll in 1969 is used to determine how much each member will receive. Very careful records are kept with regard to patronage capital to assure that each member is treated equally based on the amount of electricity they used during those years.

Jo-Carroll has retired \$980,367.87 to date in patronage capital. The checks were sent to the members during the first part of December. Before 1987, capital credits checks were distributed at the annual meeting, but since the meeting date has been changed to spring, the checks are mailed directly to the members.

The capital credits return constitutes a major difference between cooperatives and investor-owned utilities. The stockholders in an investor-owned utility get the profit, and in a cooperative it is returned to the members of the cooperative in the form of capital credits.

John Stumpf

Reader prize

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call 858-3311
24 hours a day

Happy Holidays

*from the board and employees
of Jo-Carroll Electric Cooperative.*

*Jo-Carroll Electric Cooperative's office will be closed Friday,
December 25, in observance of Christmas and Friday,
January 1, for New Year's Day.*