

# Spinning for electricity



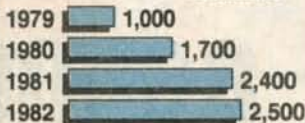
By Mark Peterson, Special for USA TODAY

**FAN FARM:** Utility company representative Greg Pruett, left, and U.S. Windpower Inc. technician Lorin Allgaier at a wind farm in Altamont Pass, Calif., that sells power.

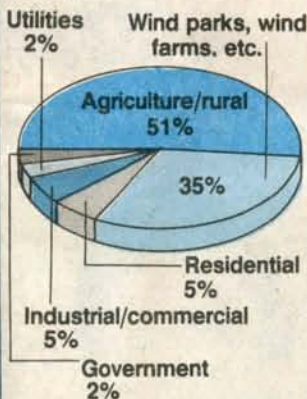
## Wind power

Sales of small windmills (50 kilowatts or less) have surged in recent years. Here's a look at sales for the past four years and a breakdown of the 1982 buyers:

### Windmills



## Buyers

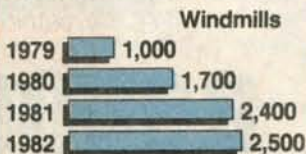


By Doug Menuez, Special for USA TODAY

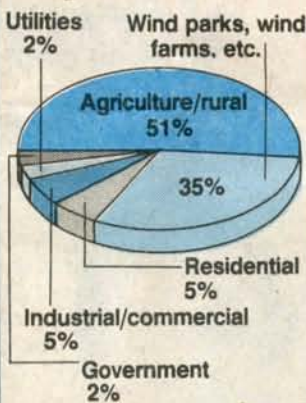
**SALES UP:** M.L. Jacobs (left) and his son, Paul; firm expects to sell 800 windmills this year.

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Source: Strategies Unlimited

By Marcy Eckroth, USA TODAY

## COVER STORY

# Wind power on the brink of revival

Can this elusive force whip its way into market?

By Chuck Raasch  
USA TODAY

PLYMOUTH, Minn. — Feisty, 80-year-old M.L. Jacobs, who built thousands of electricity-generating wind machines on USA farms and ranches in the 1930s and 1940s, is back in business — a symbol of the nation's rekindled wind-energy industry.

After a 20-year hiatus, Jacobs Wind Electric Co. — 51 percent of which is controlled by a Minneapolis computer company — is producing 10- to 17-kilowatt wind machines costing as much as \$33,000 apiece.

## Ford denies match with Japan friend

Special for USA TODAY

Ford Motor Co. and its Japanese partner Toyo Kogyo Co. Ltd. met last week to discuss a possible joint venture, *Metalworking News* said in this week's edition.

But Ford spokesman Eugene Koch said the two automakers "have ongoing talks on a variety of subjects" and none includes such a joint venture.

## Office furniture n

Company	1982
Fuqua Industries (American Seating)	-\$2
GF Business Equip.	
Herman Miller . . . .	13

Source: Companies listed

Please see COVER STORY next page ►

# Will wind power pay off?

Continued from 1B

This year Jacobs expects to sell about 800 of the machines, which look like airplane propellers on stilts. That's four times as many as he sold last year.

Wind power is poised for a comeback. It has been enhanced in the past five years by tax breaks for alternative energy, requirements forcing electric companies to buy wind power and climbing electrical costs. Homeowners are putting tiny windmills in their back yards. Huge corporations are building wind farms — rows of large wind generators more than 10 stories high — for commercial use.

In California, Pacific Gas & Electric Co. has contracts with 70 wind farms to supply power. U.S. Windpower Inc., with 400 windmills in Altamont Pass near San Francisco, sold PG&E about 4 million kilowatts last year. Although that is only a small fraction of what California customers use, PG&E spokesman Greg Pruett says it is significant: "It's displacing our need to burn fossil fuel."

But some wind-power backers fear that declining short-term oil prices and the end of tax breaks could stunt the wind industry in its infancy.

Wind, the product of the earth's heating and cooling process, has been a romantic — if somewhat elusive — force since 1000 B.C., when the Persians pumped water with cloth sails powered by the wind. And USA historians say water-pumping windmills had as much to do with the settlement of the West as barbed wire or the Colt pistol. Some 6 million of the clanking, multiple-bladed, fan-like windmills were spread about the country in the late 19th and early 20th centuries.

But it's not romanticism that turns people to wind today.

Larry Boisclair, 50, a Medina, Minn., computer engineer, bought a \$20,000 Jacobs wind machine 2½ years ago, receiving \$6,000 in federal and state tax credits.

"My power rates kept going up and up and you know, it got to the point I needed to have something better," he says. When the 23-foot blade hums to the wind on its 80-foot tower perch, it can meet Boisclair's \$60-a-month home electrical needs — with energy to sell.

The arrangement is simple: The law in Minnesota and other states says if there is no wind, you can buy your electricity from the power company. But if the wind blows, you can sell your extra power to the utility. So, in windy months last spring, Boisclair got about \$35 back from the power company. His highest electrical bill last year: \$12.

There are other wind buffs. A Delran, N.J., minister says a \$7,800 generator has cut bills at his First United Methodist Church nearly in half. An Elk River, Minn., farmer has run his dairy farm on wind power for 48 years.

Wind machines are producing five

times the electrical power they did at the end of 1979. California, among states with the most liberal tax credits, had a tenfold increase in the amount of commercial wind power produced last year.

But that could change. Wind machines are in what one engineer described as a "Model T stage." Two to five years are needed before engineers will know if big wind machines are feasible and how they should be built, says Nick Butler, Bonneville Power Administration engineer.

Also, government tax credits, which wind industry experts agree are responsible for much of the national surge, are running out. This is California's last year; federal credits run out in 1985. There are moves to extend both.

All this is happening as the price of oil declines, making alternatives like wind power less attractive over the short term and scaring away potential investors. Wind machine owners need to charge about 8 cents per kilowatt hour to make money, but the cost of oil-generated electricity in California now is about 5 cents.

Nationally, about 35 companies are producing wind machines, ranging from small propellers for homes to four-megawatt behemoths. Wind can't be put to work everywhere; many machines won't produce until they reach speeds of about 7 mph. In other words, if the wind doesn't blow for days at a time, you lose money.

It takes big money for the commercial ventures: Jacobs didn't have the cash to expand, so last December he sold controlling interest to Control Data Inc., ranked 144th on last year's Fortune 500 list.

Boeing Co. (31st on the Fortune 500), United Technologies Corp. (20th) and Bendix Corp. (86th) also are exploring wind power. Their presence belies the image of the eccentric back-shop inventor.

"This is not a little bitty group of guys from the '60s sitting around smoking joints," says Scott Sklar, political director of the Solar Lobby, pushing for alternative-energy tax breaks.

All told, Jacobs and his brother sold more than \$100 million worth of the 2½-kilowatt wind machines during and after the Depression. Rural electrification drove him into retirement, but the rising cost of utility power is bringing him back.

"Electrical costs will keep on climbing," he says, adding that today's lower oil costs are temporary. "We're looking five or 10 years down the line."

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**CORRECTION:** A story in Friday's Money section incorrectly described a legal action taken against International Gold Bullion Exchange Inc. The Florida attorney general issued an emergency cease-and-desist order, which means the Fort Lauderdale company must stop certain advertising and sales practices or go to court. The company has not been closed.