

## Alternative energy sources generate power

On the windswept Magdalen Islands in the Gulf of St. Lawrence and on Vancouver Island, windmills are generating electricity. Another may soon be located in the Queen Charlotte Islands off the coast of British Columbia. The windmills, made by DAF Indal Ltd. of Mississauga, Ontario, are one example of progress in developing alternative forms of energy generation.

DAF Indal is a leader in the development of vertical-axis wind turbines which can take wind from any direction, unlike the horizontal-axis kind which must have their propellers turned into the wind. Other breakthroughs include the location of the gear box, generator and controls at ground level for easier and less costly maintenance.

The number of companies active in the alternative energy and conservation field is estimated to be about 300. About 100 of them have contracts with the National Research Council, working in areas such as solar, wind, peat and biomass energy.

In Canada, small decentralized energy projects would lessen the dependence of isolated communities on diesel fuel for electricity generation.

DAF Indal Ltd. is involved in developing a diesel-windmill hybrid that would use wind-driven turbines when wind velocity is strong enough and diesel fuel at other times.

### Testing program

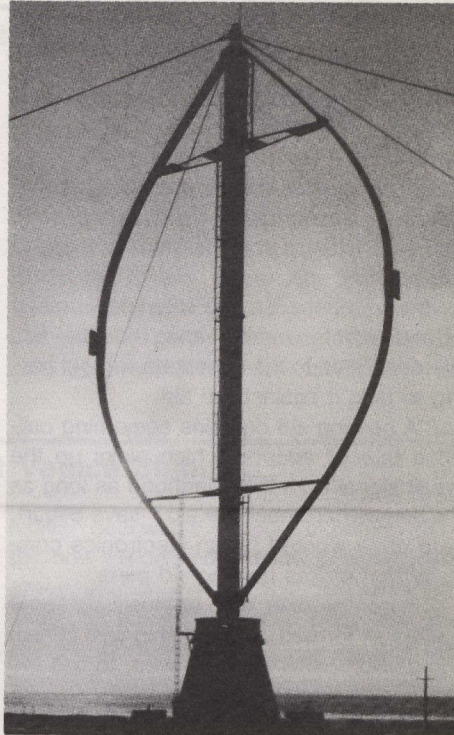
Four communities in Northern Ontario currently have a testing program under way.

"Remote communities, not just in Canada but throughout the world, have the largest potential business for wind turbine generation of electricity," said Vincent Lacey, product manager for DAF Indal. Currently, the company makes windmills in the range of 50- to 500-kilowatts.

A \$35-million co-operative venture between NRC and Hydro-Quebec will provide data on large-scale wind turbines, and the capability to produce power over prolonged periods. Named Project Eole, after the Greek god of wind, the experiment is located at Cap-Chat in the Gaspé Peninsula using a 110-metre windmill to find ways to achieve lower-cost power.

### Solar power

Solar power, once the touchstone of renewable energy sources, is considered effective for chores such as domestic water heating and passive heating in highly energy-efficient homes. Up to 25 per cent of space



*The number of companies active in the alternative energy and conservation field in Canada number about 300. Windmills that catch the wind from any direction now are operating across the country.*

heating requirements can be provided by passive solar systems, according to NRC research. But questions remain about the effectiveness of solar heating for extreme northern conditions.

Active research is continuing in the use of photovoltaic cells. The cells, operating on energy from the sun, have been used experimentally in some locations to produce most of the energy needed in a home.

Developing better methods of energy conservation, particularly for space heating to substantially reduce consumption is also receiving attention from researchers.

## Mitel nets giant US sale

Mitel Corporation recently announced its biggest single sale ever, a contract worth at least \$200 million (US) that also marks the first major penetration of its sophisticated SX-2000 communications system into the US market.

The contract is with RCA Service Company of New Jersey, a subsidiary of the giant RCA communications conglomerate. RCA has agreed to buy at least \$200 million (US) of Mitel products over the next five years, in particular the top-of-the-line SX-2000 private branch exchange but including other systems and hardware.

## Honda plant to open in Ontario

The investment of \$100 million by Honda Canada Inc. in an automotive assembly plant in Alliston, Ontario, is an "important breakthrough". Minister of Regional Industrial Expansion Ed Lumley said recently.

Honda president Tadashi Kume said that production of about 19 000 *Accords* would begin by 1987. He said the plant should reach full production capacity around 1989, when it will produce about 40 000 *Accords* and *Civics* per year.

All cars made in the plant would initially be sold only in Canada. Once the plant is operating at peak, Mr. Kume said Honda would consider further expansion that might include export production. He said that while the cost of producing the cars in Canada will be somewhat higher than in Japan, the selling price of cars assembled here will be no different from the selling price of the same car assembled in Japan.

Mr. Lumley acknowledged that Honda's \$100-million investment was small compared to the \$2 billion to \$3 billion that Japanese auto firms have invested in similar plants in the US.

But he expects Honda will expand further in the future and other foreign automakers would also open Canadian plants.

## Talking report



*Canadian Tire Corp. Ltd. president J. Dean Muncaster (above) holds an innovative annual report that might even make the hit parade. It is a ten-minute record of Muncaster telling shareholders in simple language how his firm fared in 1983.*