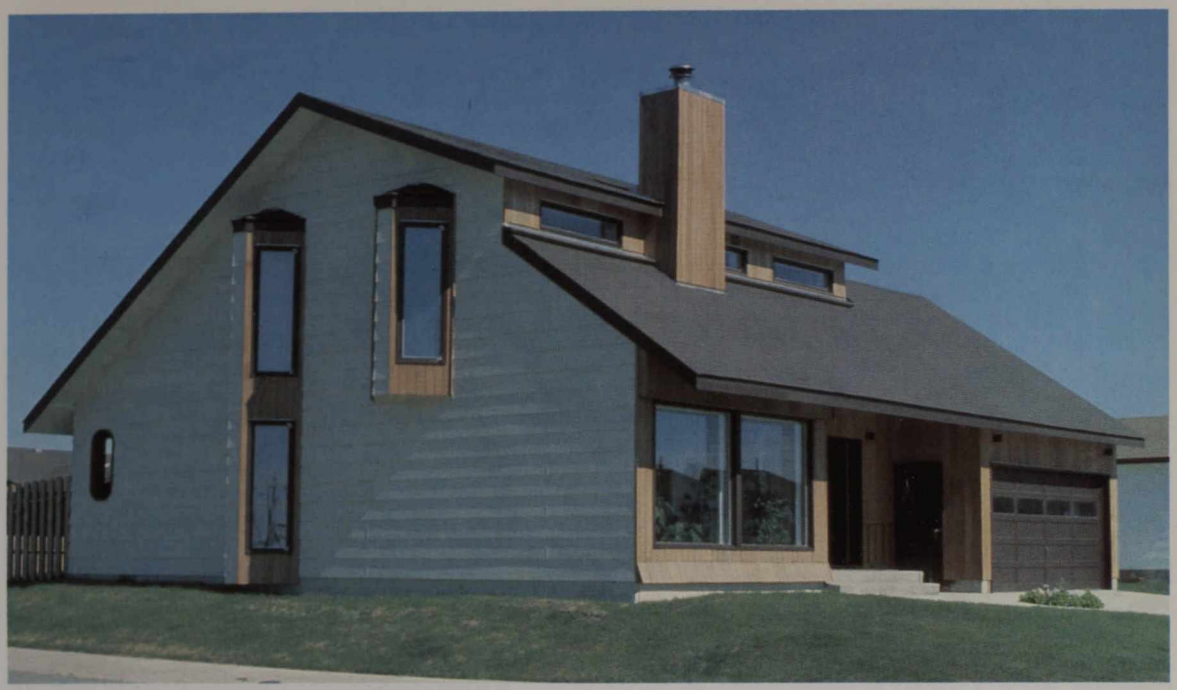
PHOTOS: ENERCON



Enercon's model house

The house is basically designed to conserve heat. The exterior walls are a foot thick, insulated to triple the usual standard. The extra insulation costs only $1500 to $2000. They have a vapor barrier of continuous triple-thickness polyethylene, with no gaps anywhere. At night nylon shades coated with a film that reflects heat inward roll down between the double panes of the alcove window.

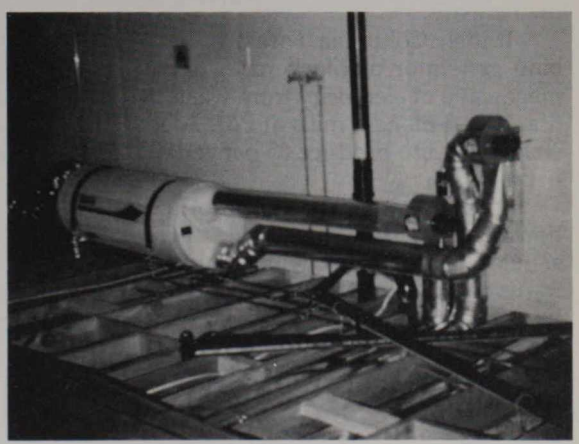
The house's essential feature is an air-to-air heat exchanger which takes care of the high humidity that automatically builds up in a heavily insulated house. The exchanger (adapted from a design developed at the University of Saskatchewan) transfers 90 per cent of the heat from the humid air leaving the house through one plastic pipe, to the drier air flowing in through another. It also prevents the buildup of dangerous gases, formaldehyde, nitrous oxides and even radon.

Enercon has since built more than 100 energy efficient houses across Canada. Some lack the passive solar system but have the heavy insulation and the heat exchanger. These still reduce heating costs by an estimated more than 60 per cent.

The total extra cost runs only to about 6 percent, and most of Enercon's Regina houses sell for $65,000 to $85,000 and heat for under $150 a year.

Leland Lange is now living in another experimental house designed and built by Enercon.

Don and Glynis Granger of Freelton have the first of forty "double wall" Saskatchewan-type houses planned in rural Ontario. Between last August and January their heating bill totaled $11.48. Their model is among the more sophisticated, and theoretically the heat given off by human bodies and appliances can keep it comfortable.



The fresh air heat-exchanger transfers heat from the warm, wet air going out to the cold, dry air coming in.

Biomass

Biomass, in the broadest sense, includes all living things and their wastes, residues and by-products.

Dry biomass includes logs, twigs, dry straw and the stumps of chopped-down trees.

Wet biomass, which contains at least 50 per cent moisture, includes manure and municipal garbage.

Either can be converted to solid, liquid and gaseous fuel.

In Canada the best source of biomass fuel is wood—trees, stumps and the wood chips and