

Sun shrinks home heating bills

by Mike Walker

"Why are you heating your house today? If it was designed with common sense, the sun would do it for you."

So said Gordon Howell, of the Alberta Research Council's Solar and Wind Energy Research Program Tuesday evening.

Howell was concluding a lecture on "Practical Solar Energy" sponsored by the Boreal Institute for Northern Studies. His point was that solar energy is viable for home heating in Alberta right now.

He was not referring to the familiar "active" solar heating systems in many experimental projects. Howell is a proponent of "passive" solar heating, in which sunlight warms the house directly. The house is then prevented from radiating heat back outside.

In contrast, "active" systems require expensive solar collectors and extensive plumbing in each house. Howell claims passive heating can heat homes without the expensive technology of active heating. A passive system might cost much less than \$10,000 while an active

system could cost up to \$40,000.

He says the first concept in passive solar heating is restricting large glass areas to the south wall of the house. Roof overhangs should be designed to shut out the high summer sun but admit the lower winter sun.

Howell claims his second concept solves this problem. Simply stated, this concept is that mass stores energy. Dense substances like brick, concrete

and water absorb great amounts of energy when the surrounding air is warm and radiate heat when the air is cool. Properly utilized, Howell says dense substances can store daytime heat for release at night.

Howell says the sun's short-wave radiation is able to penetrate glass, but longer-wave re-radiated energy is less able to. Thus a "mass-wall" or floor made of concrete or masonry inside the house will store the sun's energy during the day.

Another option is to build a greenhouse on the south side of the house, separated from the house by a mass wall. This has the added benefit of providing a greenhouse warmed at night by the mass wall that is warming the house.

Howell says, there are problems associated with passive solar heating, including the possibility of overheating and the more difficult problem of stratification. Because heat rises, the warm air is not circulated somehow, the air at the ceiling will be much warmer than that at the floor.

One solution to the problem

of stratification is an active system passing through the solar collectors. The heated air is passed through a rock bed (15 tons is a good size, according to Howell) so the rocks will absorb the heat in the same way as a mass wall would. When the heat is needed, air can be drawn through the rocks and, Howell suggests, used to heat the house using existing furnace ducts. The

whole system is fan-driven.

The Solar and Wind Energy Research Program is currently setting up a series of ten solar and wind energy monitoring stations around the province. These stations monitor wind speed and direction and solar energy levels in their locations. Howell says the program will lay the groundwork for future solar experimentation in Alberta.



No help for kids

by Amanda LeRougetel

The absence of a pediatric emergency facility for the 370,000 children in northern Alberta is an appalling situation according to a representative of the Northern Alberta Children's Hospital Foundation (NACHF).

Pat Horsefield, a public relations representative for the NACHF, says northern Alberta is the only major population area in Canada which does not have a modern children's hospital.

The NACHF, which was created in 1977, wants to establish a hospital in Alberta geared specifically to the emotional and medical needs of children.

Horsefield says a hospital geared toward adults and their illnesses is not the ideal place for children. Children's medical and emotional needs differ greatly from those of older people, she says.

Horsefield says a center will attract the pediatric specialists necessary to deal with these specific needs.

The children's hospital would also provide accomoda-

tion for parents while their child is hospitalized. Horsefield says this would allow for greater communication and would lead to a better emotional relationship between the sick child and the parent.

The NACHF says the children's hospital would be a center co-ordinating all pediatric needs in northern Alberta. It would provide not only medical care, but also services such as psychiatric counselling and help with problems such as child battering and child neglect.

So far the NACHF has met with positive response from the community and solid support from many pediatricians. However, further public support is necessary, says Horsefield. Therefore, in conjunction with the Lamda Chi fraternity, the NACHF has set up an information booth in CAB today and tomorrow between 11:00 a.m. and 2:00 p.m. Information on the hospital will be available and students will be able to sign a letter of support for the Foundation.

Scholarships cover shortage

OTTAWA (CUP) -Carleton University, facing an operating budget deficit of 1 million dollars because of education funding cutbacks, has decided to dip into its scholarship fund to cover the money shortage.

University president Bill Beckel said the only way for Carleton to survive the year financially is to use money from the scholarship fund, a large savings account used to finance scholarships awarded by the university. If it is used up, said Beckel, Carleton will be the only Ontario university without one. Beckel said the money would probably only be used for one or two months near the end of the fiscal year.

Last month Beckel announced that Carleton hopes to

remove 50 teaching staff and 100 support staff - "through attrition" by June 1980 to deal with the University's severe financial difficulties.

Beckel says Carleton, like many other Ontario universities, has been forced into a deficit position because the provincial government's funding has been "unreasonable in terms of our revenues."

Carleton's funding grant increased only 3.5 per cent last year while costs jumped 9.5 per cent.

"I'm hoping the government policy will ease and there will be recognition that there has been underfunding and that the universities can't survive without additional funding," Beckel said.

Beckel also warned faculty and staff at Carleton that their jobs won't be protected at the expense of the university.

"When you're talking about layoffs, you're talking about a financial emergency that could end in bankruptcy. I don't want to get to that stage."

Militant cyclists pedal on

by Gary Gee

"The bicyclist needs less dangerous situations on the road," says Tom Nilsson, a member of the newly-formed Edmonton Bicycle Commuters.

His sentiments were echoed by the group of 25 bicycle enthusiasts who gathered at McKernan School recently to discuss the formation of the first bicycling society in Edmonton.

"The proposed society would seek to clarify the legal status of the bicyclist on the road," says Roger Vick, founder of the group. Nilsson adds that the current Alberta Highway Traffic Act classifies the bicyclist as "... a person who has all the rights and is subject to all the duties that the driver of a motor vehicle has."

This legal interpretation is unduly dangerous to the bicyclist. "It doesn't meet the unique, specific needs of the bicyclist," explains Vick. The hierarchy of right-of-way between the cyclist and the pedestrian on the High Level Bridge is a good example of the confusion which exists.

The Edmonton Bicycle Commuters are currently in their organizational stages but future plans will include working closely with the Edmonton Police Department and city planners on future bikeways planned for the city. The group would like to lobby with neighbourhood community groups for better cycling routes, improved road conditions, and increased public awareness about bicycle safety.

"This is an activist group only in the sense that we would lobby for more bike routes in the city, better bicycling legislation, and improved standards to designs on bikes," says Tom Nilsson. Nilsson points out that since automobile safety standards are enforced, cycling

manufacturers must be approached to maintain proper safety standards on bicycles. "Perhaps the formation of an official society would persuade government to listen much more carefully," says Nilsson.

Dennis Wighton worked extensively with city planner and the Campus Development Office on constructing the popular and successful 113 St. - University Avenue bikeway. He would like to see the group aim for a bicycle commuter route connecting the west end of the city with the university campus.

He stresses that the already high congestion of bicycle commuters using this route suggests a much-needed feasibility study. A veteran bicycling-reform advocate, Wighton points out that since the first bike route was introduced in 1973, there has never been an organization which has overseen the activities

of the city on bicycle transportation routes. "And that's what an activist group should do," says Wighton.

On campus, the group would lobby for more bicycle racks and perhaps develop a safer alternative route leading to Michener Park than the less-than-satisfactory Whitemud Freeway. This winter, the group plans to hold bicycle maintenance clinics and develop bicycle safety programs for youngsters.

"The group largely appeals to the recreational, pragmatic cyclist," says Tom Nilsson.

As one member aptly concluded, "Organizations are created or formed because of a particular need. The acceptance of the needs of the bicyclist is long overdue."

The bicycle commuters will meet again November 7.



photo Russ Simpson

Family supported

The Students' Union Refugee Committee is receiving increasing support throughout the university community.

The committee was formed in September to implement a Students' Union motion to adopt an Indo-Chinese boat family. Despite earlier setbacks and some negative reaction from the general public, the group now claims a long list of supportive groups and individuals on campus.

The latest group to endorse the committee is the university Computing Society, who plan to hold a benefit social for the

family. In addition, SUB Theatre will present the Marx Brothers in *Animal Crackers* this Friday, with all proceeds going to the refugee fund.

In spite of increasing support, the committee has collected only a fraction of its goal of \$10,000 so far. Although most fund-raising events are forthcoming, the refugee fund now stands at only \$1321.

Anyone wishing to donate to the fund can mail contributions to Room 259D, 62 Students' Union Building, University of Alberta, Edmonton.

Bell to national board

Students' Union vp internal Sharon Bell was appointed to the board of governors of the Association of Students Councils (AOSC) at a national conference in Regina this weekend.

The conference was a joint meeting of the National Union of Students (NUS) which the U of A has not joined, and the AOSC which the U of A belongs to.

Bell will serve as the Alberta and British Columbia representative on the nine-member board and will be responsible for maintaining contact with other AOSC members and attending regular board meetings.

It's an appointment Bell

feels will be advantageous for the U of A despite the demands on her time.

"It gives the U of A a strong voice in terms of the AOSC," she says. "It also provides the chance to really accomplish something in the area of student services."

AOSC runs the Canadian University Travel Office (CUTS), which offers cut-rate travel services and other benefits to students.

Bell says she may pursue the possibility of setting up a national speaker's bureau which could provide speakers for universities at a low cost.