

Cross-border video service

Customers of the member telephone companies of Telecom Canada in eight cities across the country will soon be able to hold electronic video conference meetings with their counterparts in the United States.

The video conference is a further step from telephone conference calls, allowing users in different cities to see each other. Conferees meet in specially equipped studios provided either by themselves or the telephone companies. In addition to two-way video the studios can also provide document and computer data exchanges at the time of the meeting.

Telecom Canada recently announced plans to expand its domestic video conference service, called Conference 600.

The nine telephone companies belonging to Telecom Canada have video conference studios in eight Canadian cities and a ninth will be added next year in Winnipeg.

Negotiations have begun with Isacomm Inc., a subsidiary of United Telecommunications Inc. of Westwood, Kansas, to link Conference 600 with Isacomm's Meeting Channel service offered in 22 US cities.

Plans are also under way, but not as far advanced, to develop a similar cross-border service with AT and T Communications, a division of American Telephone and Telegraph Co. of New York.

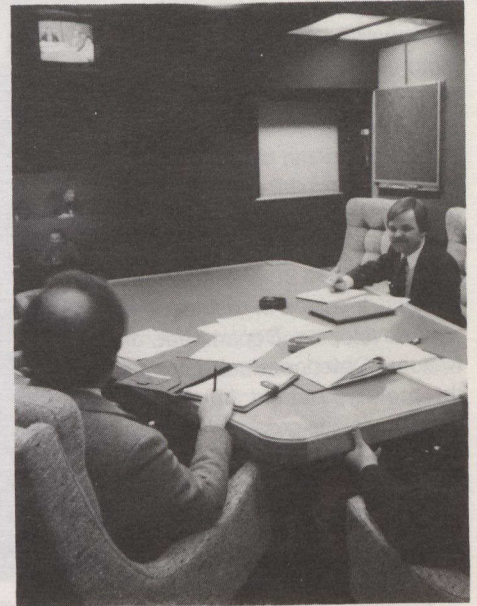
Telecom Canada and Isacomm expect to begin their cross-border service by the end of the year. But they have yet to work out what the rates will be and technical issues such as where the border points will be located.

Like the Conference 600 rates, charges will depend on the distance between the conference centres and time (in half-hour increments) up to a point, after which they are fixed. Subscribers will not be charged for any extra distance required to route the signals through the border crossing points.

The "umbrella" agreement with Isacomm will also set the basis for the rates to be charged by the Canadian telephone companies. These rates will have to be approved by Canadian regulatory agencies before the service can be offered.

Bell Canada, a unit of Bell Canada Enterprises Inc. of Montreal, offers both Conference 600 and a cheaper, less sophisticated video conference service for users not requiring all the options.

According to Bell, video conference services can cut meeting costs almost in half, with a four-hour meeting of 12 people in Victoria and St. John's costing \$4 000, compared with current airline and hotel costs totalling \$7 600.



Telecom Canada Conference 600 video conferencing studio in Quebec City.

Sun-powered electricity

In a project described as the first of its kind in Canada, a curator's home near Kleinburg, Ontario, is meeting some of its electrical needs with energy from the sun.

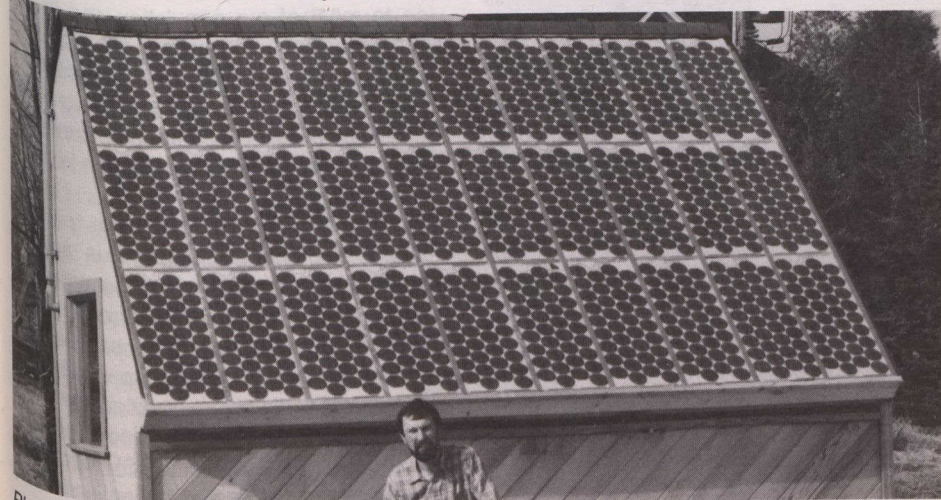
Up to 1 000 watts of power for the household of curator Allan Foster is coming from a \$12 000 photovoltaic unit set up at the Kortright Centre for Conservation.

The experiment is being conducted by Ontario Hydro, the Metropolitan Toronto and Region Conservation Authority and the

University of Toronto.

Occasionally, when the unit's output is more than the Foster family's requirements, some electrical energy is actually flowing away from the two-story house into the Vaughan Hydro system.

An array of photovoltaic cells mounted on the roof of a small building near the home produces up to 1 000 watts as direct current at between 245 and 300 volts. An inverter donated by the university changes the flow into the conventional 115 volts and alternating current.



Photovoltaic unit provides some 1 000 watts of power to curator Allan Foster's home.

Per Drewes of Hydro's Design and Development Division said the installation is unprecedented in Canada. Although photovoltaic systems have been used elsewhere, they have been isolated from power grids.

Mr. Drewes said the installation is also the first roof-integrated array in the country. The photovoltaic modules are designed to be capable of replacing conventional roof sheeting and shingles.

Although Ontario Hydro designed and installed the photovoltaic system, the conservation authority erected the small building and the university's electrical engineering department designed and built controls linking the photovoltaic array with the conventional Vaughan Hydro residential service.

Mr. Drewes said that after about one week of operation, the system seems to be working well, with output particularly good on cold, sunny days.

However, the unit often does not start working in the morning. "For some reason, it seems to need someone to go out and give it a kick."

Mr. Drewes said that although such systems are still far more expensive than other sources of electricity, the cost today is only about one-third that of a comparable unit three years ago.