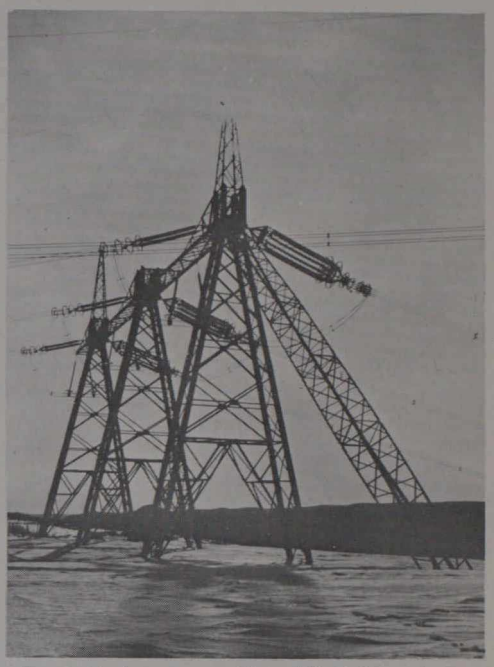
Canadian Expertise In Generating

Delegates from India and five neighbouring countries attend the Regional Power Systems Seminar sponsored by CIDA in Kathmandu, Nepal in early 1977.



Transmission tower, Churchill Falls, Labrador, Newfoundland, Canada, part of the transmission system for the 5,000 MW Churchill Falls hydro generation project.

Electricity has played a major role in Canada's development and the building of huge hydroelectric projects in remote regions of the country has forced engineers, manufacturers and contractors to pioneer techniques in many areas. These include dam construction, large turbine and generator installations, AC and DC transmission and the operation of complex power systems. The expertise acquired in the development of these projects has placed a number of Canadian companies in the forefront in the international marketing of electrical power generation equipment.

Harnessing electrical power for industrial, commercial and domestic uses is a specialty of Canadian companies.

They are also recognized internationally for their ability to provide top-quality equipment, services and systems to meet today's electrical requirements as can be seen, for example, in many Asian countries. Today, Canadian-designed and manufactured hydro generating equipment is providing low-cost power to more than 30 countries around the world.

International recognition of Canadian expertise in the field of power has led to two regional power systems Seminars in Asia, the most recent being held in Kathmandu early this year. Delegates from six countries (India, Sri Lanka, Bangladesh, Pakistan, Afganistan and, of course, Nepal) attended the week-long seminar sponsored by the Canadian International Development Agency. The seminar was conducted by senior engineers from Shawinigan Engineering of Montreal, and the New Brunswick Power Commission. The highly technical conference reviewed the latest developments in power systems and discussed the problems and potentials of power generation in this region of Asia.

Canada's continuing expertise in the electrical field results from the execution of ever-larger generation developments and their accompanying transmission systems. Included in these are the 5000 MW Churchill Falls hydro-generation project in Labrador with only 11 generator units and the 2000 MW Pickering nuclear generating station that has four generating units. Other large hydro sites in the course of development in Canada are the 2,200 MW Peace River project in British Columbia, the more than 1,200 MW Nelson River development in Manitoba and the 10,200 MW James Bay region development in northern Quebec. In the nuclear field, the 2,000 MW Pickering station is being twinned and two 3,200 MW generator groups, each composed of four units, are being built in the eastern shore of Lake Huron, Ontario at the Bruce Nuclear Generating Station.

Conventional coal and oil-burning generating stations, with individual generators up to 570 MW capacities, are also under construction at several locations in Canada.

Canadian Generating equipment in use abroad

Other countries have for many years been supplied with high-quality generating equipment of Canadian design and manufacture. Canada is currently supplying 700 MVA hydro units to the Grand Coulee project in the United States. Canadians also contributed to the development of the Idikki Dam project in southern India (see photo page 3) by furnishing equipment to produce 390 MW of generation capacity. This project, which was constructed with the supervision of SNC International of Montreal, was officially commissioned in February 1977.

At the other end of the size scale is the Canadian capability of competitively supplying smaller gas turbine generating sets. Two such units, manufactured by Westinghouse Canada, are currently in use in Assam, where they each generate 15 MW of power for Oil India Ltd. The Indian government has recently confirmed that power generation by gas turbine is an excellent answer to the