

## CANADA'S POWER DEVELOPMENT IN 1963

Over 1,000,000 kilowatts were added to Canada's electric generating capacity in 1963, it was recently announced in a year-end statement by the Minister of Northern Affairs and National Resources, Mr. Arthur Laing. "Canada is in the midst of a programme of massive power development", the Minister said. "No slackening in the pace of development is in sight. By the end of 1963, electric generating capacity rose by 1,220,000 kilowatts. Projected completions in 1964 are expected to total 1,349,000 kilowatts".

Beyond 1964, Mr. Laing predicts, as much as 12,000,000 kilowatts will become available when projects now under construction, or in the planning stage, come into operation.

Of new capacity installed in 1963, some 785,000 kilowatts were hydro power; another 435,000 kilowatts were thermal power. Development in 1964 will be fairly evenly divided between hydro and thermal, with the latter holding a slight edge. About 75 per cent of the 12,000,000 kilowatts scheduled for completion after 1964 will be installed in hydro-electric plans.

### NEW TURBINE CAPACITY

New machinery put into service in 1963 boosted Canada's total installed hydro-generating capacity to 20.1 million kilowatts. Expressed as turbine capacity, the total hydraulic installation at the end of 1963 was 28.2 million horsepower. This included a small amount of capacity provided by hydraulic turbines connected directly to mechanical equipment. The total capacity of generating equipment in thermal plants rose to over 6.2 million kilowatts.

Contributing almost 5.7 million kilowatts to Canada's power-development programme will be the

giant Manicouagan-Outardes hydro-electric complex under construction in Quebec. Development of the Portage Mountain site on the Peace River in British Columbia will add another 2.3 million kilowatts of hydro energy. In Ontario, the next few years will see over 800,000 kilowatts of hydro capacity and some 2,000,000 kilowatts of thermal capacity come into service. These projected totals may increase by several million kilowatts when firm indications of plans for developing the Hamilton River in Labrador are available.

Rapid advances in extra-high-voltage transmission have provided the means of carrying hydro power from relatively remote sites to demand areas at costs competitive with thermal power. As a result, several hydro-electric power sites previously considered outside the economic transmission range are now under construction; others are being investigated.

### USE OF NUCLEAR ENERGY

Canada, recognized as a leader in nuclear research, has recently entered an era which may see growing dependence upon nuclear energy for electric-power production. In 1962, thermal power from a nuclear reactor first entered a distribution system in Canada. The source was a 20,000-kilowatt plant at Chalk River, Ontario. Construction now in progress of a major nuclear station, Douglas Point Nuclear Station on the shores of Lake Huron, will increase the present total of nuclear thermal-electric capacity by 200,000 kilowatts in 1965. Plans for larger plants suggest that nuclear energy will increasingly assume the burden of supplying Canada's power requirements.

\*\*\*\*\*

### VANIER PROMOTED GENERAL

His Excellency the Right Honourable Georges P. Vanier, Governor General of Canada, was promoted from the rank of Major-General to the rank of General in the Canadian Army, effective January 1. He is the sixth Canadian Army officer to be promoted to this rank.

The promotion follows a long and distinguished military and diplomatic career, which started at the beginning of the First World War, during which General Vanier was awarded the Distinguished Service Order, the Military Cross and a bar to the Military Cross for gallantry in action while serving with the Royal 22nd Regiment, of which he was a founder.

General Vanier is now Colonel, Royal 22nd Regiment.

\*\*\*\*\*

### U.S.-CANADA AIR-SPACE PACT

In recognition of the need to facilitate, with safety, flight across the common boundary, the Governments of Canada and the United States recently concluded an agreement authorizing the extension under certain conditions of air-traffic

control service by either country across that boundary into the air-space of the other country.

The agreement establishes a zone 50 miles on either side of the Canadian-U.S. boundary within which the "air boundary" for air-traffic control purposes would usually coincide with the International Boundary. However in some instances, when prevailing air-traffic conditions and operational necessity dictated, the "air boundary" would be established procedurally elsewhere within this zone by agreement between the Department of Transport and the U.S. Federal Aviation Agency.

### NATIONAL RULES APPLY

In developing the agreement, full cognizance was taken of the fact that, in accordance with the laws of the two countries, Canadian rules and regulations must apply in Canadian air-space and U.S. regulations must apply in U.S. air-space. Accordingly, measures have been taken to ensure that the Canadian and U.S. air-traffic controllers who provide service for such flights be kept advised of, and apply the rules and regulations appropriate to, the air-space under their jurisdiction. Since there is a very high degree of uniformity in the U.S. and Canadian rules, no difficulty is expected in ensuring that the appropriate rules are applied in each case.

(Over)