

mouth thermal development in south-central Saskatchewan and possible hydro developments on the Saskatchewan and Churchill river systems.

**Alberta.** Electric power generation in Alberta is provided by two major investor-owned companies and three municipal utilities. In addition, several other municipal systems handle local distribution of power purchased from the investor-owned utilities. Electrical utility companies previously known as Canadian Utilities, Limited and Northland Utilities Limited were merged in 1972 into a single company known as Alberta Power Limited.

The Energy Resources Conservation Board regulates the construction and operation of the electric utilities under the Hydro and Electric Energy Act of the province of Alberta, and the Public Utilities Board regulates the rates.

The installed capacity in the province as at December 31, 1972 was 2,788 MW, a 4.1% increase over the 2,679 MW recorded a year earlier; total energy generated increased by 12.6% from 11,098 MWh in 1971 to 22,498 MWh in 1972. While 25.7% of the total generating capability of the province was in hydro sources in 1972, all but 12.5% of the total power generated came from conventional thermal plants with steam units providing 83% of that total.

Three large thermal units were brought on line in 1973, raising the province's installed capacity by 615 MW to a total of 3,405 MW, an increase of 22% over the corresponding total at the end of 1972.

Calgary Power Ltd. commissioned, in 1973, the second 300-MW unit at its Sundance thermal station. Work continued on the third and fourth units of this plant, each rated at 375 MW and scheduled for service in 1975 and 1976. An electrostatic precipitator to handle all flue gases from the first two Sundance units was placed in service and is giving excellent results. Work is proceeding on a 1,200-acre cooling pond to service all four units at Sundance as well as a projected fifth unit; this facility is designed to completely eliminate heat discharge into Wabamun Lake.

Transmission additions included 68 miles of new 138-kV and 17 miles of 138-kV lines converted to 240-kV service. Construction of two 240-kV lines, a 55-mile connection to the British Columbia Hydro system at the Crowsnest Pass and a 60-mile link between Sundance and Edmonton, scheduled for 1973, was delayed pending government approval.

Alberta Power Limited completed installation of the 150-MW unit at the H. R. Milner coal-fired thermal station near Grande Cache. A 150-MW unit is scheduled for 1975 commissioning at the Battle River plant near Forestburg to raise the plant's capacity to 366 MW.

During 1973 Alberta Power Limited added 35 miles of 72-kV and 144-kV transmission lines and is planning construction of some 440 miles of new transmission lines in 1974, including a 175-mile 240-kV line from Slave Lake to Fort McMurray and the adjacent oil sands development area in northern Alberta.

Edmonton Power installed a second 165-MW gas-fired thermal unit at its Clover Bar station, doubling the plant's size. Two similar units are planned for 1976 and 1978.

In 1972 an Electric Utility Planning Council was organized in Alberta to formalize an electric energy planning relationship that has existed between the province's utilities for many years. Working with interested government agencies, the Council is formulating a systematic schedule for power plant construction in Alberta through to the year 2001. Areas under study as future generating plant sites are near Calgary, Edmonton, Camrose and mid-eastern Alberta. While the province-wide planning is being undertaken as a joint effort, actual design and construction of generating facilities will be undertaken by individual utilities or possibly under a joint agreement between two or more utilities.

**British Columbia.** In terms of installed hydro capacity, British Columbia is exceeded only by Ontario and Quebec. The province has many mountain rivers offering abundant opportunity for the development of hydro-electric power; notable for the magnitude of their power potential are such rivers as the Columbia, the Fraser, the Peace and the Stikine. Hydro developments on smaller rivers in the south once met the major load requirements of the province but in 1968 the immense power resources of the Peace River began to supplement the energy supply. Development of the hydro potential of the Canadian portion of the Columbia River is now under way, utilizing water from three huge storage dams.

The foremost producer and distributor of electric power in British Columbia is the British Columbia Hydro and Power Authority, a provincial Crown corporation. B C Hydro operates a diversified system of public utilities including transportation services by rail, sea and road.