

mining properties and the townsites of Lynn Lake, Fox Lake and Leaf Rapids will be met.

Of the three Prairie Provinces, Manitoba, with immense hydro-electric capabilities on the Winnipeg, Churchill, Nelson and Saskatchewan rivers, is the most generously endowed with water power resources. Until recently, hydro-electric generating stations on the Winnipeg River supplied most of the power requirements of southern Manitoba. Manitoba Hydro's high-voltage, long-distance transmission lines, however, will carry ever-increasing amounts of power south from hydro-electric stations on northern rivers to help meet the province's constantly growing power demands.

Development of hydro-electric sites on the Nelson River promises to provide Manitoba with its main source of new capacity for the present and for some years to come. In 1973 the province had sufficient capacity available to permit the sale of 100 MW of surplus capacity to both Ontario and Saskatchewan and to increase short-term sales to the United States. Three 102-MW units were installed in the Kettle hydro station on the Nelson River in 1973, increasing that plant's total installed capacity to 918 MW in nine units. The plant's ultimate capacity of 1,224 MW will be operational by late 1974, at which time it will represent 40% of the province's generating capacity. Power from this station is transmitted southward by an HVDC transmission system to a terminal station near Winnipeg. The Kettle station is also connected to Manitoba's northern area via alternating current transmission facilities.

At the head of the Nelson River, at the outlet of Lake Winnipeg, a control project is under way to regulate the level of Lake Winnipeg by late 1974. In conjunction with the regulating facilities, a six-unit 168-MW hydro plant (Jenpeg) is scheduled for completion in 1977 with initial service in 1976. On the lower Nelson River, construction of the 10-unit, 980-MW Long Spruce hydro plant has begun. This new plant and the existing Kettle and Kelsey developments will both benefit from regulation of Lake Winnipeg. To further increase and stabilize flows to these and future developments on the Nelson River, construction of works to divert a portion of the Churchill River flow into the lower Nelson River via Southern Indian Lake is also under way; this diversion channel, through the Rat and Burntwood river systems, offers four potential hydro sites totalling approximately 730 MW.

In a number of communities throughout rural Manitoba small local thermal (diesel) generating stations were supplanted by supply from the main Manitoba Hydro system and in 19 other localities additional diesel generating capacity was added; the new diesel capacity installed totalled 3,620 kW but a total of 3,450 kW was removed, leaving a net increase of 170 kW.

**Saskatchewan.** The Saskatchewan Power Corporation was established in 1949 by the Power Corporation Act (RSS 1965, c.40, as amended) as a successor to the Saskatchewan Power Commission which had been in operation since 1929. The original functions of the Corporation included the generation, transmission and distribution, sale and supply of electric energy with the objective of making electricity available to all the people of the province, in abundance and at reasonable rates. Since 1952, the Corporation has also been authorized to produce or purchase and to transmit, distribute, sell and supply natural or manufactured gas.

In 1972 the Corporation served 126 communities with populations of 500 or more, about 875 smaller communities and 106 summer resorts. In addition, bulk power was supplied to Saskatoon, Swift Current and Battleford. A wholly-owned subsidiary, North-Sask Electric Ltd., is responsible for providing and improving electric service to communities in northern Saskatchewan.

Saskatchewan's present load growth is being met by thermal capacity. A 150-MW thermal unit was commissioned at the Boundary Dam station, near Estevan, in mid-1973, increasing the station's capacity to 582 MW. A 300-MW unit has been committed for the Boundary Dam plant to meet forecast additional capacity requirements by 1977. In 1975 and 1976, single 50-MW gas turbine units are scheduled for installation at a new combustion turbine generating station at Landis near Saskatoon.

To reinforce the North Battleford area and to serve as a future connection between the new Landis thermal plant and the provincial electric system, a transmission line from Ermine to North Battleford was upgraded to 138 kV from 72 kV. A similar line at 138 kV, designed for upgrading to 230 kV, was under construction for service early in 1974 between Coteau Creek and Swift Current.

Beyond 1977 a number of developments are under consideration including a new mine-