capacity of Kettle, Long Spruce and Limestone. HVDC transmission additions are to be phased in over 1978-83 as required by the timing of generation additions.

Manitoba Hydro planned to extend its interconnections with the United States to augment the current 230-kV connection with the Northern States Power Company in Minnesota. An application to the NEB for licensing of a second international 230-kV circuit to interconnect with Minnesota Power and Light was approved in March 1976. Advantages to Manitoba of these interconnections include electricity sales from seasonal variations in water flow, and from use of temporary water storage, which utilize the flexibility of hydro system operation; interconnected US utilities depend mainly on thermal generation and have peak demand during summer unlike the Manitoba utilities which, in the same way as all Canadian utilities, encounter peak demand during winter. Manitoba also has significant interchanges with Saskatchewan and northwestern Ontario.

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 corporation's original functions included the generation, transmission and distribution, sale and supply of electric energy to make electric power available throughout the province 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.

A 70-MW gas turbine unit came into service in November 1975 at Landis, 75 miles (121 km) northwest of Saskatoon. Provision is being made for an underground gas storage cavern to provide for winter peak operation without placing excessive demands on the gas system.

In 1977 an additional 300-MW unit at the Boundary Dam lignite-fuelled thermal station would raise the total installed capacity to 882 MW. The next proposed addition is a new lignite-fuelled station to be known as Poplar River near Coronach in south central Saskatchewan with a tentative commissioning date of 1979 for the first 300-MW unit. Further development under consideration includes hydro sites at Wintego on the Churchill River and at Nipawin on the Saskatchewan River.

In 1975 some 68.8% of electric power was generated by thermal stations and the balance by hydro-electric stations.

Alberta. Electric power generation in Alberta is provided by two major investor-owned companies and three municipal utilities. In addition, a number of 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 to form Alberta Power Limited.

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

Addition to capacity in 1975 was limited to the second 150-MW unit in Alberta Power's Battle River coal-fired thermal station. However, work is actively proceeding on several generation projects. Calgary Power expected to commission two 375-MW units in 1976 at its Sundance coal-fired thermal station on Lake Wabamun, west of Edmonton. A further 375-MW unit is to be completed in 1978 and the fourth in 1980 raising the total capacity of the Sundance station at that time to 2 100 MW (6 units).

Environmental effects were being reduced to a minimum through the construction of a 1,200-acre (486 hectares) cooling pond at Sundance and through the provision of electrostatic precipitators on all Sundance units. Results from precipitators in use on the two 300-MW operating units at this station show 99.5% removal of particulates. Precipitators were also being added to the older