

Wabamun station. Expenditures for all environmental protection devices at the two stations will probably exceed \$80 million.

Late in 1975, Calgary Power applied to the Energy Resources Conservation Board of Alberta for approval to construct a 2250-MW coal-fired generating station in the Camrose-Ryley area. The plant is to consist of six 375-MW units to be brought into service between 1982 and 1986.

Edmonton Power is continuing the construction of additions to its Clover Bar gas-fired thermal station, adding a 165-MW unit in 1976 and another in 1978, thus doubling the total station capacity to 660 MW. Environmental studies continued on the effect of warm water discharge on the biota of the North Saskatchewan River which is used for cooling and on the reduction of nitrogen oxides in the stack discharge.

Alberta, with large resources of mineable subbituminous coal, has opted to develop this low-cost resource as a fuel for thermal power stations; hence most new thermal capacity in the province to the year 2000 will probably be based on this fuel. Toward the end of the century, however, underground mining may be required to provide additional production of subbituminous coals in Alberta.

Major transmission developments in Alberta in 1975 were additions to 240-kV and 138-kV lines. Calgary Power completed a 240-kV line from Sundance to Red Deer. Alberta Power and Calgary Power completed a 138/240-kV line between Alberta Power's Battle River plant and Calgary Power's Matiskow substation to the east of Battle River.

British Columbia, with substantial water resources, meets over 90% of its electricity needs through hydro generation. Only a small portion is thermal, involving oil and some gas. Current planning indicates that hydro development will continue through the year 2000 with thermal generation becoming important by the mid-1980s. Initially, thermal generation will be mainly from coal since nuclear generation is not likely to be undertaken prior to 1990.

The foremost producer and distributor of electric power in British Columbia is the British Columbia Hydro and Power Authority, a provincial Crown corporation. BC Hydro operates a diversified system of public utilities including transportation services and gas distribution. Electric power is generated, transmitted and distributed throughout areas of the province containing more than 90% of the population. Natural gas is purchased and distributed in Greater Vancouver and the Fraser Valley, and liquefied petroleum gas in Greater Victoria.

New generating capacity in 1975 totalled 181-MW thermal and 250 MW of hydro. The sixth 150-MW unit at the Burrard station came in service in 1975 and a 28.6-MW gas turbine unit was commissioned at Prince Rupert. The only hydro addition in 1975 was at the new Kootenay Canal plant where the first two of four 125-MW units were put into service; the remaining two were scheduled for completion in 1976. A 53.9-MW unit was added in 1976 at the Keogh station near Port Hardy, and a 40.5-MW unit was scheduled for completion.

Major additions to hydro generation are under construction and during the period 1976-80, 3 215 MW of new hydro capacity will be added to the system. Work is progressing on the Mica project where two 435-MW units were scheduled for completion in 1976 and two more in 1977. On the Peace River 14 miles (23 km) downstream of the G.M. Shrum generating station, construction of the Site 1 project is under way. First power from this four-unit 700-MW station is expected in 1979 with completion in 1980. A fourth major hydro-electric development will be the Seven Mile site on the Pend-d'Oreille River 6 miles (10 km) upstream of the existing Waneta Station, where preliminary work on the construction camp started in 1975. Three of the four 175-MW units planned for this development are being scheduled for service in 1980. Planning related to a major hydro development on the Columbia River near Revelstoke is also actively under way.

While no major new transmission lines were brought into service in 1975, work continued on the 500-kV lines to connect the Mica project to the BC grid.