

coal from Calgary Power's mining operations increased 11% over 1975; a further 22% increase was expected in 1977 to fuel the Sundance and Wabamun thermal plants.

### British Columbia

13.10.10

British Columbia derived over 95% of its electricity needs from hydro generation in 1976. Current planning indicates that hydro development will continue through the year 2000 but thermal generation will become important by the mid-1980s. Coal, an abundant resource in BC, will become the principal fuel source with the advent of larger thermal stations. BC Hydro is currently planning the development of a substantial lignite deposit at Hat Creek in central BC and is tentatively planning a 2000-megawatt thermal station at that site.

The first two of four 435-MW units scheduled for installation in the underground power station at the Mica Dam on the Columbia River were commissioned late in the year. Units 3 and 4 were scheduled for service in 1977 with two additional units to be installed after 1978 as required.

Installation of a 53.9-MW gas turbine unit at the Keogh station near Port Hardy was the only addition to thermal capacity in 1976.

On the Peach River, construction of the Site I hydro project downstream of the Portage Mountain station continued on schedule. This plant is to have four 175-MW units, with first power expected in 1979. Units 3 and 4 are scheduled for service in 1980.

Construction is under way at the Seven Mile hydro site on the Pend-d'Oreille River. The diversion tunnel was completed and by year end construction of the main access road was nearing completion. Three of the four planned 202-MW units are scheduled for service in 1980. The fourth will be installed later when needed.

Plans for another major hydro development on the Columbia River at Revelstoke are well advanced. A licence was granted late in 1976 and tenders were called in January 1977 for the diversion tunnel and access roads. This station will have an initial installation of four 450-MW units, with first power scheduled for 1983; two additional units may be added at a later date.

Major transmission developments in 1976 included completion of BC Hydro's second 500-kilovolt receiving station, the Meridian substation near Port Coquitlam, to provide delivery of power from Mica to the 230-kV network in the Vancouver area. The two-line 500-kV Mica transmission facility will be completed by 1978. West Kootenay Power and Light Co. added 45 kilometres of 230-kV transmission line between Kelowna and Vernon. This line was connected for initial use at 138 kV and was to be brought to full power (230 kV) in 1977 when terminal facilities were completed. At year end, work was close to completion on an expansion of the HVDC underwater link between the mainland and Vancouver Island.

Total electrical energy demand in BC increased by 11.9% from 1975, apparently chiefly because of increasing industrial demand (18.9%) and to a lesser extent increases in both residential (9.1%) and commercial (7.7%) consumption.

Some 8.6% of total generation in BC (3.3 terawatt hours) was exported. More than 86.0% of exports went to the US through existing interconnections with the Bonneville Power Authority; the remaining 1.1% of generation was transferred to Alberta via the existing 138-kV Crowsnest interconnection.

### The territories

13.11

In the Northwest Territories, electric energy use increased approximately 2.9%. In the Yukon Territory, energy consumption decreased 10.1% as a result of a 24.8% decrease in industrial (mining) consumption caused by labour unrest; this reduction was partially offset by increases in residential (14.5%) and commercial (2.9%) categories.

Major additions to generating capacity in the Northwest Territories included the commissioning of two 5-megawatt hydro units at Snare Forks. Diesel installations by the Northern Canada Power Commission added 13.5 MW of new capacity, 95% of it in the Northwest Territories. Future hydro developments in the Yukon Territory and Northwest Territories have been suspended pending a reassessment of short-term