

completed in 1978. Three train-loads of western coal a week, destined for use at the Nanticoke generating station, are now unloading at the new terminal. With the new transportation system Western Canada will be a significant source of coal supply for Ontario Hydro thermal generating plants by the early 1980s. CNR will transport from the Luscar mine in Alberta and CPR will ship coal from the Byron Creek mine in British Columbia. At Thunder Bay, the coal will be loaded into ships bound for a blending facility at the 4000 MW generating station at Nanticoke.

Great Lakes Power Corp. of Sault Ste Marie began construction of a 54 MW hydroelectric plant on the St. Mary's River in Sault Ste Marie, scheduled to go into service in 1982, at an estimated cost of \$95 million.

Ontario Hydro decided to stop construction and store the components of the second half of the heavy water plant at the Bruce D nuclear power development until an additional source of heavy water supply is required. Construction of the first half of the plant, more than 80% completed, was subject to further consideration following completion of a review of the nuclear portion of the generation program.

The Pickering A plant proved to be one of the world's top performing nuclear stations for the third year in a row and an irradiated fuel bay was commissioned at the plant in 1978. In July 1978 construction began on the 3600 MW Darlington nuclear plant, followed by an announcement that Ontario Hydro recommended acquisition of a new site on the north channel of Lake Huron for an energy centre. Timing of the latter project is dependent on the generation program review.

Great Lakes Power Co. proposed to install three 18 MW units in 1981 at a hydroelectric station to be called St. Mary's in northwestern Ontario.

13.10.7 Manitoba

A federal loan of \$193 million and an earlier \$244 million provided for the Nelson River development will assist in movement of power from Manitoba's Nelson River sites.

The first and second 98-MW units at the Long Spruce hydro project were installed in 1977. Long Spruce, the second major development on the Nelson River, was expected to have an ultimate capacity of 980 MW over 10 units by 1980.

The main components of the Churchill River diversion were completed in the early part of 1977. Up to 850 000 dm³ of water a second can now be diverted from the Churchill to the Nelson. However, another major hydro development at Limestone, downstream from Long Spruce, was deferred for final completion to 1989, with the first unit scheduled for 1984.

Additional generation capacity totalled 476 MW during 1978, when four 98-MW units at the Long Spruce station, and three 28-MW units at Jenpeg were brought into service. Three more 98-MW units at Long Spruce and two more 28-MW units at Jenpeg were scheduled to come into service in 1979.

Manitoba Hydro has identified eight possible sites for nuclear generation. However, studies have been suspended since nuclear generation may now not be required until the mid-1990s.

The capacity of the Nelson River HVDC transmission system was increased by adding a new converter station at Henday near the Limestone site. This involved construction of additional DC transmission lines between Long Spruce and Henday and the extension of a HVDC circuit from Radisson to Henday. Expansion of the first bipole was completed during 1977 expanding its capacity by 270 MW to 1620 MW. Construction of the second bipole continues, with the first phase having come into service in late 1978. The second phase is to come on stream in 1989 (900 MW each).

Changes in Manitoba Hydro's expansion plans were the result of continued small load growth. The completion of Limestone was delayed and the units were set at 117 MW each. This rating will apply until the Conawapa site is developed. Then the Limestone units will be derated to approximately 110 MW. There were no changes in policy on generation mix — almost all energy will be produced from hydro when conditions are normal, with thermal generation to make up any deficiency.

Various transmission projects were completed in 1978: a ± 500 -kV DC line from Henday (the northern terminal of Bipole II of the HVDC transmission system) to