of 15 896 megawatts, 9.5% above 1975. Generation totalled 87.2 terawatt hours of which 43.9% was from hydro, 18.8% from nuclear units and 37.3% from fossil fuels (70.8% coal, 13.8% gas, 15.4% oil — representing, respectively, 26.4%, 5.1% and 5.7% of total generation).

Ontario imported 13.2 TWh, representing 13.8% of provincial energy needs from other provinces. Net exports to the US of 4.2 TWh (4.8% of total generation) and exports to other provinces (0.4 TWh) resulted in a net import of 8.7 TWh — about 9.1% of electrical energy consumed within the province.

Ontario Hydro added a sixth 500-MW unit at its Nanticoke coal-fired station. Two 573.75-MW units were installed at the Lennox oil-fuelled station in eastern Ontario raising the total capacity of that station to 2 295 MW, the first major oil-fuelled power station in the Ontario Hydro system. Increases in hydro generation were limited to a 37.05-MW unit at Arnprior and a 24-MW unit at Andrew's Falls.

At the Bruce generating station, an 800-MW nuclear unit came into operation and was scheduled for commercial service in early 1977. A 12.16-MW gas turbine unit was commissioned at the same station and two 12.16-MW gas turbine units became operational at the nearby Bruce heavy water plant during the year; two more similar units were planned for 1977.

An extensive program of nuclear generation is expected to add 10 960 MW of new capacity in the period 1977-87. This program consists of four four-unit stations, three employing 800-MW units and one, Pickering B, with 540-MW units. At Bruce A, one 800-MW unit will be added each year from 1977 through 1979. Other nuclear additions now scheduled are Pickering B, 2 160 MW, 1981-83; Bruce B, 3 200 MW, 1982-85; and Darlington, 3 200 MW, 1984-87.

In northwestern Ontario, an extension to the coal-fired Thunder Bay plant is expected to add 300 MW in two units in 1980. A four-unit, 800-MW coal-fuelled generating station at Atikokan is projected for 1983-84. Both the Thunder Bay addition and the Atikokan stations are being designed to use western coal.

Fossil-fuelled additions will include the seventh and eighth 500-MW units at the Nanticoke station in 1977. An oil-fired station at Wesleyville, near Port Hope, similar in design to the Lennox station, is tentatively scheduled for service in 1981-83.

The only hydro unit currently scheduled by Ontario Hydro is a second 37.05-MW unit at Arnprior to be installed in 1977. Great Lakes Power Co. is proposing to add two 7.5-MW hydraulic units in 1981 at the St. Mary's station.

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

Work is proceeding on schedule at the Long Spruce hydro station despite extensive remedial work to rectify damage caused by a fire in one unit. Long Spruce, the second major development on the Nelson River, will have an ultimate capacity of 980 megawatts over 10 units by 1980. The first two units were scheduled for 1977 to be followed by four units in 1978 and the remaining four in 1979.

The Churchill River diversion scheme is almost complete. Up to 850 000 cubic decimetres of water per second can now be diverted from the Churchill to the Nelson.

The next major hydro development is now in progress at Limestone, downstream from Long Spruce. The first stage cofferdam for this 1 100-MW station is under construction and the first three 110-MW units are scheduled for service in the fall of 1984 to be followed by four units in 1985 and the remaining three in 1986.

Beyond Limestone plans are tentative, but a 10-unit station (1 080 MW) site at Conowapa downstream from Limestone is being considered with first generation projected for 1987.

A capability is being developed to begin the addition of nuclear generation in Manitoba during the mid-1980s. A decision on whether or not to proceed will depend on comparison with the economics of installing additional hydro capacity on the Nelson River system.