

Ontario Hydro's interest in the St. Lawrence power development dates from as early as 1913 when the first investigations into the possibilities of the International Rapids Section were undertaken. Although interrupted by World War I, these investigations were completed in 1921 and the findings were submitted to the International Joint Commission which had been set up by the Boundary Waters Treaty of 1909 to deal with problems related to the use of international waters. This first formal statement was favourably received by the International Joint Commission, and a Joint Board of Engineers was set up to study how the power could best be developed. Following upon a report by the Joint Board, representatives of Canada and the United States, in 1932, signed The St. Lawrence Deep Waterway Treaty which called for the construction, as an international undertaking, of a combined seaway and power project in the International Rapids section of the river.

The Treaty was, however, not ratified, and because of the association of the navigation and the power aspects of the project, proved to be only the beginning of a series of discussions, proposals, and counter-proposals extending over a period of more than twenty years.

Between 1932 and 1945, because of the delays attending the St. Lawrence development, the Commission met increasing demands for power partly by the purchase or construction of small generating stations, but for the most part by increased amounts of purchased power. Since 1945 power requirements have doubled and have exceeded available supplies of purchasable power. To meet demand the Commission found it necessary to embark on an extensive construction program and fifteen new sources of power have been developed. Those either partially or wholly in service at the end of 1953 have contributed to increasing the dependable peak capacity of the Commission's systems by 84 p.c. from 1,937,500 kw. in 1945 to 3,565,350 kw. Furthermore, agreements for the interchange of power were negotiated with the Detroit Edison Company in 1953 and in 1954 with the Niagara Mohawk Power Corporation of Syracuse, New York. These interconnections add to the security of the Commission's systems by making assistance available at times of emergency.

The construction program undertaken in 1945 has not only been extended from year to year with the increasing demands for power, but has also been adapted from time to time as authorization to proceed with the St. Lawrence power project continued to be delayed. For example, the Commission entered for the first time upon fuel-electric generation on a large scale in the construction of two large stations, one in Toronto and one in Windsor, with a combined installed capacity of 664,000 kw. at 60 cycles. The Sir Adam Beck-Niagara Generating Station No. 2, currently under construction and partially in service, was originally planned with an installed capacity of 450,000 kw. in six units, but was increased in ultimate installed capacity to 1,370,000 kw. by the inclusion of ten additional units and a pumped-storage scheme. (See further p. 547.) Other units at this station as they are placed in service and units in other stations under construction will assist in meeting power requirements up until 1957.