The growth of Ontario Hydro's resources, both physical and financial, reflects the remarkable industrial and social development of the Province. In 1914, the Commission purchased its first generating station, Big Chute on the Severn River. Later in the same year, the first Commission-built generating station at Wasdell Falls, also on the Severn River, was placed in service. The program of purchase and construction of generating stations thus launched reached a climax in the construction of the great Queenston-Chippawa development, later renamed Sir Adam Beck-Niagara Generating Station No. 1 in honour of the first Chairman of the Commission. This station first delivered power in 1922. Yet, commencing four years later, the Commission found it necessary to negotiate for the extensive purchase of power from large Quebec suppliers in order to satisfy Ontario's steadily growing power demands.

In 1953, primary and secondary load carried reached a maximum of 3,480,646 kw., and during the year a total of 20,912,445,364 kwh. was supplied from all the Commission's resources, generated and purchased.

During the past ten years, growing demands for power have taxed the capacities of the Commission's resources, and only by a most aggressive program of new construction has it been possible to keep pace with the increased requirements. With due allowance for revisions in the capacity of various sources, this program had served to bring the dependable peak capacity at the end of 1953 to 3,565,350 kw., an increase of 1,627,850 kw. since 1945. The combined output of the Otto Holden, Des Joachims, and Chenaux Generating Stations on the upper Ottawa River accounts for 710,000 kw. of this additional power. Other notable hydro-electric developments have been the George W. Rayner Generating Station in Ontario's northeastern mining area and Pine Portage Generating Station in the Northwestern Division. In 1953, a program of construction and expansion was completed at the large fuel-electric stations at Toronto and Windsor, named the Richard L. Hearn Generating Station and J. Clark Keith Generating Station, respectively. In the operation of these two stations, the Commission made its initial entry into fuel-electric generation on a large scale. In addition, the Commission, in 1953, established interconnections with the Detroit Edison Company at Windsor, Ont., and near Sarnia. Through these facilities mutual assistance may be provided at times of emergency. Furthermore, each of the interconnected systems will be able to take advantage of economies brought about by the exchange of any surplus energy that may from time to time become available. During 1953, the interconnecting facilities made a significant contribution towards meeting primary power and energy requirements in the Southern Ontario System and the Northeastern Division of the Northern Ontario Properties.

During 1953, the major generation projects under construction were the new Manitou Falls Generating Station on the English River, the addition of two units at Pine Portage Generating Station on the Nipigon River, and the Sir Adam Beck-Niagara Generating Station No. 2, near Queenston on the Niagara River.

By far the largest of these projects is Sir Adam Beck-Niagara Generating Station No. 2. Initially, 12 units at the station will have an installed capacity of 900,000 kw. In order, however, to make maximum use of the water made available under the Niagara Diversion Treaty of 1950, plans were made for the subsequent incorporation of a pumped-storage installation and for the ultimate addition of four more units at the station itself, which will bring the total installed capacity of the project to 1,370,000 kw.