

the Commission to about 821 municipalities, comprising nearly all of the cities and towns of the Province, as well as many small communities and rural areas.

The providing of the power, either by generation or purchase, its transformation, transmission, and delivery to the individual municipalities and to large industrial consumers, and the operation of rural power districts are carried on by the municipalities acting *collectively* through their agent and trustee, the Hydro-Electric Power Commission of Ontario. The local operations involved in the retail distribution of the electric energy to the consumers within the limits of the various urban municipalities are performed by the municipalities *individually* through municipal utility commissions acting under the general supervision of the Hydro-Electric Power Commission.

Capital required for plant to generate and transmit power is lent by the Province, and the municipalities are under contract to repay, over a period of 40 years, the moneys thus lent, with interest in full. The local distribution systems are financed individually by the issue of municipal debentures. Provision is made, in the rates charged to the ultimate consumers, for revenue with which to retire these bonds in from 20 to 30 years. The rates at which power is supplied by the Commission to the various municipalities vary with the amounts of power used, the distances from the sources of supply, and other factors. The basic principle underlying the operations of the undertaking is the provision of service 'at cost'. The rates charged by the municipal utilities for retail service are under the control of the Commission and are designed to ensure that each class of consumer bears its appropriate share of the expenses of the undertaking. Each type of consumer is charged with the cost of the service received as far as is practicable.

Power Supplies.—To meet the constantly expanding power demands of the undertaking, the Commission has constructed its own generating plants, and has acquired several privately owned generating plants. Of the 45 hydro-electric power plants operated by the Commission in 1938, the largest is the Queenston-Chippawa development on the Niagara River, which was constructed by the Commission and has a normal operating capacity of 500,000 h.p. Provision for the needs of the near future has been made—including existing plants, plants under construction, and power under contract for present and future delivery—up to an aggregate of about 2,350,000 h.p.

Hydro-Electric Power Commission Statistics.—The Canada Year Book of 1910 (p. xliii) described the turning on, at Berlin (now Kitchener), Ontario, on Oct. 11, 1910, of electric energy generated by Niagara Falls. The small initial load of less than 1,000 h.p. increased rapidly and by 1915 had reached 100,000 h.p. In 1920 the total power distributed exceeded 350,000 h.p., and in 1930 it was over 1,260,000 h.p.

The Annual Reports of the Commission present in great detail descriptions and statistics of operation, construction, municipal work, and transmission and distribution. The Commission exercises supervisory functions over the electrical utilities owned and operated by the partner-municipalities and has introduced a uniform accounting system that enables the Commission to present consolidated balance sheets and operation reports. These statistics relate to about 90 p.c. of the retail customers supplied by the undertaking.

The initial capital expenditure required to serve about twelve municipalities amounted to approximately \$3,600,000. At Oct. 31, 1938, the total capital investment amounted to \$436,821,576, of which \$314,768,081 were investments by the Commission in generation plants, transmission systems, etc., including electric railway and other properties operated by the Commission for the major systems