Subsection 1.—The Hydro-Electric Power Commission of Ontario.*

The publicly-owned hydro-electrical undertaking of Ontario—known in the province as the "Hydro"—is an organization of a large number of partner municipalities, co-ordinated into groups or systems for securing common action with respect to power supplies. It had its beginning in 1903, when, as a result of public agitation to ensure the provision of adequate supplies of electrical power for distribution throughout the province at low cost, seven municipalities united under statutory authority in appointing an investigating commission to deal with power problems. This commission, known as the Ontario Power Commission, completed its work in 1906, and in the same year the Ontario Government, by special Act, created the present Hydro-Electric Power Commission of Ontario. The operations of the undertaking have grown rapidly and in 1934 electrical service was supplied by the Commission to about 760 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 electrical 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 40 hydro-electric power plants operated by the Commission in 1934, 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 had been made at the end of 1932—including existing plants, plants under construction and power under contract for present and future delivery—up to an aggregate of about 2,000,000 h.p.

Hydro-Electric Power Commission Statistics.—The Canada Year Book of 1910 (p. xliii) described the turning on, Oct. 11, 1910, at Berlin (now Kitchener), Ontario, of electrical energy generated by Niagara falls. The small initial load of

^{*} Revised by R. T. Jeffery, Chief Municipal Engineer, Hydro-Electric Power Commission of Ontario, Toronto, Ontario.