discharge into the river. Water from the headrace is conveyed directly into five open flumes in which are installed three main turbines and one exciter turbine. The former are of the quadruple, double-discharge, horizontal type, of 950 h.p. and direct connected to 625 K.V.A., 3 phase, 60 cycle generators. The latter is direct connected to a 90 K.W. 125 volt exciter. A second exciter, motor driven, of the same capacity, is installed. Regulation is maintained by automatic hydraulic governors. The total capacity of the plan is 2,850 h.p. under a head of 18 feet. A travelling emergency gate enables any individual turbine to be shut down. A tailrace, enclosed by a part concrete wall and part cribwork, discharges directly into the Otonabee River. The power house substructure is of concrete. The superstructure of both power and transformer houses is of brick. From the latter energy is transmitted to the Central Ontario System at 44,000, 2,400 and 6,600 volts.

Fenelon Falls Development.—This development is situated at Dam No. 30 of the Trent Valley Canal System. One end of the dam forms a three sluiceway intake for a forebay 200 feet long, leading to the power house, where two turbines, each of 700 h.p. capacity under a 24-foot head, are direct connected to 400 K.W., 3 phase, 60 cycle generators. One turbine driven exciter is installed and regulation is provided by mechanical governors. The development will be reconstructed in the future, when the load demands of the system demand the additional power. The electrical output feeds into the 44,000 volt Central Ontario System.

Trenton Development.—This development is situated at Dam No. 2 of the Trent Valley Canal System, about five miles below the Frankford development. The power house is built at the east end of the dam. An intake extending in line with the river bank and at right angles to the east end of the dam conducts water to a forebay, which in outline forms the quad-