## APPENDIX

in 1909. It was taken over by the Hydro-Electric Power Commission in 1915, by whom it was remodelled and enlarged. It includes a concrete stop-log type dam, 80 feet long and 20 feet high, having three sluiceways and a log slide. Two penstocks extend from the headworks, which are at the south end of, but separate from, the dam, to the power house. The power house has a concrete substructure and a brick superstructure. The penstocks are about 1,000 feet long, one being of wood stave, 60 inches diameter, and the other of steel 36 inches diameter. Provision is made at the lower end of the former for the installation of a future surge tank. The ultimate capacity of the plant will be 6,000 h.p. The present capacity is 1,750 h.p. under a head of 102 feet, developed by two units, one of 750 h.p., having a turbine of the horizontal, double-runner, doubledischarge type in cylindrical casing, and direct connected to a 450 K.V.A., 3 phase, 60 cycle generator, and the other 1,000 h.p., of which the turbine is a horizontal single-runner single discharge type in cylindrical core casing, direct connected to a 750 K.V.A., 3 phase, 60 cycle generator. Three exciters are installed, respectively turbine, motor and belt-driven. Regulation is provided by one mechanical and one oil pressure governor. Energy is transmitted from the power house over seven miles of 6,600 volt line to Gravenhurst, and over 26 miles of 22,000 volt line to Huntsville.

## RIDEAU SYSTEM.

High Falls Development.—This development is under construction by the Hydro-Electric Power Commission on the Mississippi River, about half a mile above Dalhousie Lake. A drainage area of 450 square miles and storage facilities in the lakes above afford a mean flow of about 280 cubic feet per second. From a concrete gravity dam having four stop-log sluiceways,

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