

The Canadian Engineer

A weekly paper for Canadian civil engineers and contractors

New Power House at Swift Rapids, Ont.

Power Development on Severn River—History of the Orillia Water, Light and Power Commission—Area of Water Shed to be Increased from 113 to 260 Acres—Government to Supply Power to Municipality During Period Necessary for Dismantling the Old Plant

IT was in 1887 that the town of Orillia made its first move in the direction of owning its public utilities, so far as electric power is concerned, although in 1883 the municipality purchased the waterworks plant which up to that time had been privately owned.

The power plant which the town erected in 1887 was designed primarily for street lighting. In 1894 the commission erected its first incandescent lighting plant. Both of these were steam plants and of very modest proportions, the arc plant having a capacity of 50 lamps and the incandescent plant of 15,000 lamps. The cost of the arc plant was \$20,000 and of the incandescent plant \$13,000, very modest sums in the light of present-day expenditures.

It was not until 1897 that the idea of developing water power on the Severn River was mooted, and in 1898 a business council was elected to undertake the project. After looking at various sites on the Severn River it was finally decided to locate the plant at Ragged Rapids and a contract for the construction of the Ragged Rapids plant was awarded in 1899. It was not, however, until the spring of 1902 that current was actually turned on. Since that time three different dams have been built and the plant capacity has been increased from 600 to 1,200 kilowatts.

The Ragged Rapids plant of the Orillia Water, Light and Power Commission has been an important factor in Orillia's industrial life as well as in stimulating a public spirit among all classes of the community. As showing the growth of power necessary to supply the requirements

of the municipality it may be mentioned that the modest anticipations of the early years have been more than realized, so much so that to-day Orillia is purchasing one and one-half times as much current as her own plant is producing, and even then it is difficult to meet the demand. Since the plant at Ragged Rapids was built it has always paid its way without making any demand upon the tax rate to meet deficits and has supplied the town with light and power at cheap rates.

The Severn River, upon which the new Swift Rapids plant described, and the Ragged Rapids plant are both

located, forms a link in the Trent Valley Canal system, being section No. 2 of that work.

Several years ago engineers of the Department of Railways and Canals, in charge of the building of this section of the Trent Valley Canal, decided to place a lock at Swift Rapids instead of at Ragged Rapids. The reason for this was that it would be cheaper to do so rather than go to the expense necessary to the building of such a channel as it was found

would be needed in order to enable the Trent Valley Canal to get past the existing plant at the Ragged Rapids.

The plant at Swift Rapids will, when completed, take the place of the Ragged Rapids plant. The cost of the construction of the new dam and power house is being borne by the Dominion government. The mechanical and electrical equipment of it, however, is to be paid for by the Orillia Water, Light and Power Commission. As a result of this arrangement between the commission and

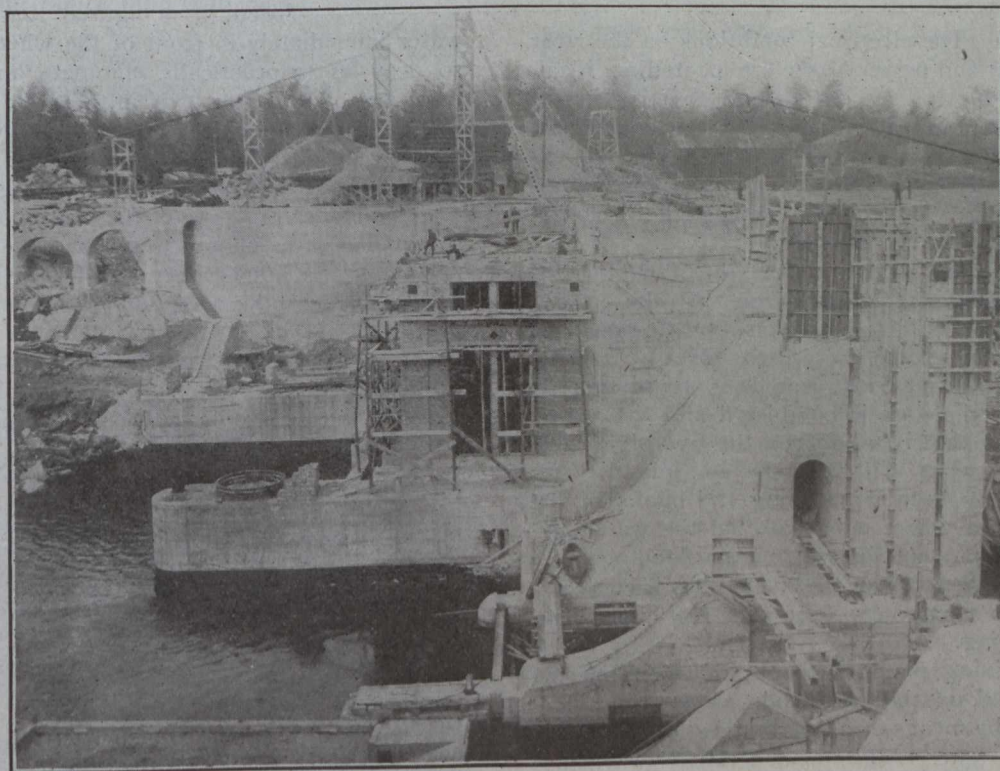


Fig. 1.—View from South Bank of River, Showing Complete Layout. Power House is Immediately Behind the Wheel-pit House