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THE COQUITLAM-BUNTZEN HYDRO-ELECTRIC DEVELOPMENT

HARNESSING THE WATER POWERS OF COQUITLAM AND BUNTZEN LAKES, BRITISH COLUMBIA—NEW HYDRAULIC-FILL TYPE OF DAM AT COQUITLAM —WESTMINSTER WATER SUPPLY—POWER EXTENSIONS AT LAKE BUNTZEN

By G. R. G. CONWAY, M. Can. Soc. C.E., M. Inst. C.E.
Chief Engineer, B.C. Electric Railway Company, Limited

THE Coquitlam Lake water power development is owned and operated by the Vancouver Power Company, Limited, which is a subsidiary company of the British Columbia Electric Railway Company, Limited, a company operating a railway, light and power business in the districts surrounding the cities of Vancouver and New Westminster, and the Fraser Valley, and also the city of Victoria and district on Vancouver Island.

The main features of the original power development, which were put into operation in December, 1904, consisted of a scheme connecting Lake Coquitlam with a lake known as Lake Buntzen by means of a tunnel through a mountain range 4,000 ft. high separating the two lakes, which has an elevation of about 400 ft. above the North Arm of Burrard Inlet.

At the outlet of Lake Buntzen a concrete dam was built 54 ft. high and 361 ft. long. From this dam originally four penstock lines were carried down 1,800 ft. to the power house, which is situated on a rocky bluff at the edge of the tidal waters of the North Arm. The original plant consisted of four 3,000 h.p. Pelton wheels, having an effective head of about 395 ft., and four 1,500 kw. Westinghouse generators.

Fig. 1.—General View of Coquitlam Dam During Construction.

Watershed.—The available water supply is derived from the Coquitlam watershed, which has an area of 105