

British Columbia Electric Railway Co., Ltd.—Con.

Power. *Transmission Lines.*—33 miles of wooden pole lines serve the municipalities of Victoria, Esquimalt, Saanich, and Oak Bay.

The company purchases all the power of its subsidiary company, the Vancouver Island Power Company, for distribution on Vancouver Island. The company also operates an electric railway on Vancouver Island between Victoria and Deep Bay.

Use of Power.—Power is used for lighting, operation of electric railways, general manufacturing, and general power purposes.

Power is sold in bulk to municipality of Victoria.

Power is delivered adjacent to Esquimalt and Nanaimo Ry., Canadian Northern Ry., Victoria and Sydney Ry., and Ocean navigation.

The company has at present available for sale 4,200,000 kilowatt hours from the Goldstream plant, and 50,000,000 kilowatt hours from the Jordan River plant of Vancouver Island Power Company. Rates for large commercial power, for 100 horse-power and over of active load, range from 2 cents per kilowatt hour for first 65 kilowatt hours, per month per horse-power, maximum demand, to $\frac{1}{2}$ cent per kilowatt hour for all over 130 kilowatt hours per month, per horse-power, maximum demand.

Provision is made at the Jordan River plant for an additional turbine capacity of 13,000 h.p., which will be installed at some future date.

Vancouver Island Power Company, Ltd. (Hydro Power Plant No. SHA₂), controlled by British Columbia Electric Railway Company, Ltd. July, 1918.

Address.—Head Office, 425 Carrall St., Vancouver, B.C.; Local Office, Victoria, B.C.

Directors and Officials.—See British Columbia Electric Railway Company, Ltd.

History.—Initial installation of one unit in 1911, additional unit added in 1912.

Power-house enlarged in 1914 and third unit installed in October, 1914.

Capital.—Authorized, \$4,000,000. Issued, \$3,500,000.

Capital invested in Power Equipment.—\$3,931,052.

Plant. *Officials.*—D. I. Walker, Victoria (Engr. Hydro Pwr. Sta.); T. W. Walker, Victoria (Engr. Auxil. Pwr. Sta.).

Location.—Hydraulic plant located on Vancouver Island at mouth of Jordan river, which flows into the straits of San Juan de Fuca, about 36 miles west of Victoria, and is adjacent to coastal navigation. Steam auxiliary plant located at Brentwood Bay.

Installation.—Plant operates under an average head of 1,145 feet. Water is conveyed from diversion dam to forebay reservoir by about $5\frac{1}{2}$ miles of wooden flume, and from reservoir to power-house by two steel penstocks, each 9,290 feet in length. Penstock for first two units consists of 3,067 feet of 54-inch riveted steel pipe, connected to two 36-inch riveted steel pipes decreasing in diameter to 30 inches at power-house. Penstock for third unit consists of 1,960 feet of 54-inch pipe and 7,330 feet of 48-inch pipe. Upper 2,569 feet is riveted steel and remainder is lap-welded. Turbines—2 Pelton-Doble, 90-inch, hor., single runner, impulse, 600 h.p. each, 400 r.p.m., 1 Pelton-Doble, 93-inch, hor., single-runner, impulse, 13,000 h.p., 400 r.p.m., total 25,000 h.p.; Generators—2 Allis-Chalmers-Bullock, A.C., 3-phase, 60-cycle, 4,000 k.v.a. each, 400 r.p.m., 1 Can. Gen. Elect., A.C., 3-phase, 60-cycle, 8,000 k.v.a., 400 r.p.m., total 16,000 k.v.a.; Exciters—2 turbines, 26-inch, hor., 150 h.p. each, 870 r.p.m., 1 turbine, 54-inch, hor., 200 h.p., 600 r.p.m., 2 motors, 3-phase, 2,300 v., 870 r.p.m., 1 motor, 3-phase, 2,300 v., 600 r.p.m., 2 generators, 100 k.w. each, 870 r.p.m., 1 generator, 200 k.w., 600 r.p.m. Transformers—2 banks of 3. Can. Gen. Elect., single-phase, water-cooled, oil-insulated, primary 2,300 v., secondary 34,600 v., 1,400 k.v.a. each, 1 bank of 3. Can. Gen. Elect. single-phase, water-cooled, oil-insulated, primary 2,300