

capacity of the John Hart Generating System will be 168,000 h.p., or 120,000 kw. Preliminary work is under way to provide additional water-storage capacity at Buttle Lake.

The John Hart development now serves, through Commission transmission and distribution systems, territory on Vancouver Island between Duncan and Campbell River, including the Comox Valley, Alberni, Lake Cowichan and Nanaimo-Duncan power districts. The B.C. Electric Railway Company Limited takes delivery of power at Nanaimo and transmits a large block for distribution in Victoria and environs, so that the John Hart development serves all main portions of Vancouver Island. The facilities provided as a result of this development have led to the establishment of three major industries on Vancouver Island—one at Nanaimo, one at Port Alberni, and one at Duncan Bay.

On the mainland another major power project, the Whatshan development on the west side of Lower Arrow Lake, has been completed. It is designed for an ultimate 66,000-h.p. capacity and the first two turbines of 16,500 h.p., generating 11,250 kw. each, began operation in May 1951. Power from this plant is transmitted 75 miles at 138,000 volts to Vernon in the Okanagan Valley. Through an inter-connection with Kamloops in the north and the West Kootenay Power and Light Company Limited lines to the south, a large area in the interior of the Province can be served by this project.

Other hydro-electric power projects, in various stages of development, are described below.

- (a) The Clowhom Falls Generating System consists of two 1,500-kw. generating units. It began operation in May 1952, serving the Sechelt Peninsula, northwest of Vancouver.
- (b) The Puntledge hydro system being acquired from the Canadian Collieries (Dunsmuir) Limited consists at present of a 9,000-h.p. hydro installation. It is being rebuilt to provide 35,000 h.p. to meet the growing needs of the Vancouver Island system.
- (c) Plans are under way for a hydro development at Spillimacheen in the Columbia Valley, situated roughly half way between Golden in the north and the Windermere area in the south. Initial capacity will be approximately 5,700 h.p., and generation will feed a proposed new 33-kv. transmission line from Golden to Edgewater, a distance of approximately 70 miles. Besides supplying a large rural area, electric energy from the Spillimacheen development will replace diesel generation at both Golden and Athalmer.
- (d) Preliminary investigations have been completed regarding the possible development of a 6,000-h.p. hydro generating system at Kokish River on northeast Vancouver Island.

Despite the benefits derived through industrial and other developments in the more thickly populated areas of the Province, it is in the remote and more sparsely populated portions that the benefits resulting from the activities of the Commission are more keenly felt. In less than seven years, the diesel capacity of generating stations which largely supply the requirements of the smaller power districts and rural communities has increased from 880 to 14,595 kw.