

The Cornwall station on the Westinghouse A. C. system, completed the same year, was the first A. C. station in Canada.

Toronto is the only place in which underground wires have yet been placed, but the Edison station, from which they are fed, has only lately been put into operation. It is the intention of the older Toronto Electric Light Co. to put underground the wires for arc lights and for the alternating current plant about to be installed.

The Barrie central station, which the writer has constructed, is the latest completed central station plant, and the only one in the Dominion on the A. C. system carrying 2000 volts in the primary wires and nearly 100 volts in the secondaries, and it is one in which the highest quality of insulation, both of primary mains and house wiring, has been used.

At the present time there are 13,530 arc lights and about 74,000 incandescent lamps in use throughout the Dominion. There is hardly a village in Ontario, having a population of over three thousand inhabitants, which has not an electric light station of some kind in operation, and few of the important towns of the other Provinces are without electric lighting. Most of these, it is true, are arc lighting stations, but about a dozen supply the incandescent light only, chiefly to stores and public buildings, the lighting of residences being yet scarcely entered upon. Several of the local companies which have hitherto supplied the arc light alone, or with a few incandescent lamps in series with their arcs, or in series multiple with them, have recently purchased and put into operation incandescence A. C. plants; and the various lighting companies formed for the supply of incandescent lights only, have also found it necessary in most cases to add arc lighting to their business, it having been sufficiently demonstrated that the incandescent light is unsuitable for street lighting, the public demanding from electric lighting, whether arc or incandescent, a much better illumination than is usually obtained from gas lighting, and in this respect the incandescent light has failed to meet the expectations even of its own advocates. The Edison municipal system has been used for street lighting on the Lachine Canal, and at Vancouver, Valleyfield, and Chatham, N.B., but is being replaced by arc lights in the two first-named places.

The principal electric lighting stations in Canada of which the capacity is 100 arc lamps of 2,000 nominal candle power or over, or 1,000 incandescent lamps of 16 candle power or more, are:—

Place	No. of Arc Lights	No. of Incandescent Lights in c. p.	System
Barrie, Ont.	75	1,200	Ball Arc, Brush A. C. Incandescence.
Brockville, Ont.	105	1,000	Ball and Reliance Arc, Slattery A. C. Incandescence.
Cornwall, Ont.		1,200	Westinghouse A. C.
Gazette Printing Co., Montreal, Que.	1,350		Edison.
Halifax, N.S.	200	1,950	Thomson-Houston and Fuller Wood Arc, Slattery Incandescence.
"	250	1,400	Thomson-Houston and Ball Arc and Westinghouse A.C. Incandescence.
Hamilton, Ont.	394	2,000	Thomson-Houston Arc, Westinghouse A. C. Incandescence.
London, Ont.	100		Thomson-Houston.
"	150		Ball.
Montreal, Que.	1,440	2,000	Thomson-Houston.
Ottawa, Ont.	322	1,000	Westinghouse A. C. and Weston series.
Peterboro, Ont.	137		Thomson-Houston.
Quebec, Que.	692	1,000	Thomson-Houston.
St. Catharines, Ont.	105	215	Thomson-Houston Arc, Weston series multiple Incandescence.
Sherbrooke, Que.	167	500	Ball and Thomson-Houston Arc, and T.-H. A. C. Incandescence.
St. John, N.B.	325	1,000	Thomson-Houston.
"	205		Brush.
Toronto, Ont.	750	1,000	Hochhausen-Wright Arc, and T.-H. series Incandescence.
"		10,000	Edison.
Truro, N.S.	60	1,800	Thomson-Houston Arc, Mather Inc.
Valleyfield, Que.		1,200	Edison.
Vancouver, B.C.	100	1,150	Thomson-Houston Arc, Edison Inc.
Victoria, B.C.	50	1,200	Ball Arc, Edison Incandescence.
Winnipeg, Man.	200	1,000	Brush and Thomson-Houston Arc, and T.-H. Incandescence.
"		3,000	Edison.
Yarmouth, N.S.	100		Fuller Wood.

* The two stations marked thus have the nominal capacity given here, but actually run at present about 20 per cent. of the number of lights at which they are rated.