

Toronto where recently erected frequency-changer units, with a total capacity of 50,000 kva., connected the 25-cycle Niagara division with the 60-cycle Georgian Bay and Eastern Ontario divisions.

In order to test out the program, a "practice zone" was first set up in east York in May, 1949. As many consumers as it was deemed advisable to supply through a 6,000 kva. transformer and 26.4 kv. transmission line were listed and their names turned over to the Commission's contractors. The rapidity and smoothness with which the change-over of equipment and consumer appliances was effected appeared to warrant the conclusion that the program could be carried through to completion in from 10 to 12 years instead of the 15 to 20 years originally predicted.

Progress of the Change-over Program.—The Commission prepared to proceed with the program in accordance with an area-sequence policy. A start was made in Scarborough Township in October, 1949. It marked the beginning of the change-over in an area designated by the letter 'A', which, skirting the city of Toronto on the east, follows North Yonge Street to Lake Simcoe, taking in the contiguous municipalities and rural districts. Thus began the detailed work of recording and checking all frequency-sensitive appliances. Technicians of the contracting companies had to cover every house and building in detail and list the exact requirements, a tremendous task in itself but one that held promise of special benefit for every family and interest in the community. The change-over in Area 'A' is expected to be completed in the early spring of 1951.

In January, 1950, frequency standardization began in the Sarnia district (Area B) and in the following June in the London district (Area C). The change-over in these two areas is also expected to be completed in 1951.

Altogether, there are 23 areas to be changed over. Work in the highly industrialized areas will naturally take considerable time to complete and will have to fit in with the availability of 60-cycle power. Standardization in the Windsor district has been placed well forward in the program, with the schedule tentatively set for 1952-54. The change-over in the city of Toronto is expected to take about six years to complete—from 1953 through 1959. Work in Hamilton is scheduled to start in 1955 and finish in 1957. The Kitchener-Waterloo district program is planned for 1952-54 and the Brantford area for 1956-57. The Niagara-Welland peninsula, with its paper mills and chemical plants, will be brought in last of all: here standardization, according to present plans, will start in the district immediately southwest of Hamilton in 1956, and the program will finish in the Niagara Falls area in 1960.

When the program is completed, approximately 300 distributing stations and 30 transformer stations, including such large stations as Burlington and Leaside, will have been changed over on the Commission's Southern Ontario System. To this must be added the conversion of frequency-sensitive equipment in the 150 municipalities enumerated in the program, including 50 municipalities that own their own step-down transformer stations.

About 1,800,000 motors, ranging from midget size to giant type, were enumerated in preliminary consumer inventories. These included the motors for 550,000 washing machines, 300,000 electric refrigerators, 400,000 electric clocks and 100,000 furnace blowers and a miscellany of motors for other less commonly used appliances. In addition there were 167,000 motors associated with industrial machinery and 185,000 commercial motors.