

work was started and technical advice was sought from international as well as national sources. When studies were completed and the program decided upon, the plans were presented to the Hydro municipalities so that any modifications could be made which were not out of line with the general scheme.

With regard to the apportioning of costs, it was decided that the Commission would bear the expense of the change-over both with regard to its own system and the frequency-sensitive equipment and appliances of domestic and commercial consumers. Industrial consumers were asked to contribute on an equitable basis to the cost of the change-over of their own electrical equipment. The 25-cycle municipalities were called upon to meet the cost of the change-over of their own sub-station and distribution systems. Part of the cost incurred would be shared by the 60-cycle municipalities in southern Ontario which, it was apparent, would all derive substantial benefits from standardization.

Legislation was approved and passed by the Provincial Government and the Commission was ready to proceed with the special organization required for the successful carrying out of the project. Ontario Hydro was now faced with the most tremendous and complicated task in its history. Water-power developments, through 40 years of experience, had become more or less of a routine business for the Commission's engineers, but there was no guiding precedent for a frequency-standardization program of this magnitude.

First of all, it was necessary to create a new Division of the Commission to which the name "Frequency Standardization" was applied. A close liaison was immediately established with the System Planning Department and the Electrical Engineering Department, the latter being made responsible for the changing of the facilities regulating the supply and distribution of power to the different areas during the progress of the program.

The Commission had already established a Service Centre and was erecting a new transformer station on 200 acres of ground on the western fringe of Toronto, just south of the suburban village of Islington. On this land, two large buildings were constructed to house equipment and supplies for the frequency-standardization program and a third building was planned. Railway sidings and an impressive fleet of trucks provided the facilities for quick handling and dispatch. Garages, work shops and repair shops were alike available for the new project and the tremendous programs of power development and system extension and improvement upon which the Commission was engaged.

As frequency standardization would be a long-term project, it was realized that for a considerable period an ample supply of 25-cycle power would be required for areas awaiting standardization. It was decided therefore not to make any immediate change in the equipment of the existing stations at Niagara, especially as 60-cycle power from the 480,000 h.p. Des Joachims development on the Ottawa River would soon be available. The plants of the Hydro municipalities undergoing the change-over were scheduled to keep pace with consumer requirements, while provision was made for the further regulation of power supply through frequency-changer sets at Scarborough, near Toronto and at Westminster, near London.

It was decided to carry out the standardization program in an area sequence determined by the availability of a permanent supply of 60-cycle power. The first location where 60-cycle power was available was in the Scarborough district east of