

particularly important at that time, when material shortages were making it difficult to obtain transmission wire, generators, and other requirements. The shortage of transformers became so acute that it was necessary to halt the installation of rural extensions.

The enlarging aluminum program in the Province of Quebec also caused concern. Power for the pots at Beauharnois was made available by dredging the intake canal and enlarging the tailrace. Power for the LaTuque pots was provided by a new generator at LaTuque, a new generator at Rapide Blanc, and new storage facilities on the upper reaches of the St. Maurice watershed. Power for the additional pots at Arvida was provided by the new power plant at Shipshaw.

It became necessary to restrict certain civilian uses of power, with the approach of the winter of 1942-43. In the shortage areas of Quebec and Ontario, the Controller prohibited the use of electricity for advertising signs, show windows, certain outdoor lighting, and other non-essential purposes. Highway lighting was ruled out and street lighting reduced by 20 p.c. The public in these areas were appealed to to reduce domestic consumption by 20 p.c.; and in co-operation with the Metals Controller, new connections were limited. At the same time the Controller embarked on a broader policy of denying power to non-war industries.

The winter of 1942-43, which broke long-standing records for blizzards, freezing rain, sub-zero temperatures, and attendant conditions such as road blockage, electric wire breakage, and interruption of transportation and communication service, plus an unusually late ice breakup, tested power facilities almost to the breaking point. Although at one time during the winter no margin whatever was available, it was not necessary at any time to curtail war production for lack of power.

As a result of ice and water difficulties the generating capacity in the Cedars and Beauharnois areas in Quebec was severely reduced. To meet this situation, water storage in the Shawinigan and Saguenay areas was drawn upon to a dangerous extent. This, in turn, made it necessary to obtain power from the Ontario Hydro-Electric Power Commission for Quebec use, and to curtail the exportation of power to Massena, New York.

Without the inter-connection between the Ontario and Quebec systems, and without the savings achieved through mandatory and voluntary restrictions, the additional power would not have been available when needed. The experience of the winter indicated the advisability of further extension of the inter-connecting lines, and more such lines were built in the summer of 1943.

With the completion in 1943 of a record new capacity, it became possible to assist agriculture in its task of increasing food production by permitting the extension of electric service to certain farms and several hundred such installations had been made before the year was over.

By October, 1944, improvement in the power situation made it possible to discontinue the restrictions prohibiting the use of electric power for non-essential purposes.

Summary of Energy Generated by Type of Station, 1942 and 1943.—Central electric stations are companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. Stations are divided into two classes according to ownership, viz., (1) commercial—those privately owned and operated by companies or individuals, and