

NATURAL RESOURCES OF THE DOMINION OF CANADA.

feet on the American side. Investigations made by the United States Government at existing power plants at Niagara Falls show that it takes about 0.075 of a cubic foot of water per second actually to develop one H.-P. per hour. On this basis 36,000 cubic feet of water per second would yield 480,000 H.-P. A yield of 450,000 H.-P. may be accepted as a minimum.

The International Waterways Commission has reported that 40,000 cubic feet of water per second can be diverted for power purposes at the rapids below the falls without injury to the scenic beauty of the rapids, and if this were divided equally between Canada and the United States it has been estimated that 215,000 H.-P. could be produced on the Canadian side, but it might be somewhat less. The conditions regarding head of water below the falls being different from those above the falls, an estimate cannot be made on the same basis. However, a minimum of 150,000 H.-P. below the falls is probably an inside estimate. We may therefore assume that 600,000 H.-P. can be produced above and below the falls on the Canadian side. However, as the Canadian Government permits the exportation to the United States of a portion of the power generated on the Canadian side, the amount of power available for Canadian home consumption is somewhat less. On the other hand, part of the power produced on the United States side of the upper St. Lawrence river may be exported to Canada. Recently a proposal has been made in the United States that a great dam should be constructed across the Niagara river below the falls, creating a new waterfall. It is stated that in this way two million H.-P. could be generated and that capital will be available for the enterprise if the Governments of Canada and the United States consent.

The available water-powers of Ontario and Quebec for which estimates have been made are distributed as follows:

	Approximate minimum 24-hour H.-P. available.
Niagara falls and rapids.	600,000
DeCew falls.	50,000
Welland river and canal developed.	8,830
St. Lawrence canals in Ontario developed.	8,263
Rapids of St. Lawrence river in Ontario.	1,028,000
Ontario tributaries of the St. Lawrence.	1,565
Tributaries of lake Ontario, including Trent Valley powers.	102,062
Tributaries of lake Erie and lake St. Clair.	7,873
Tributaries of lake Huron.	8,112
Tributaries of Georgian bay on the south and west.	43,828
Tributaries of north side Georgian bay and lake Huron.	92,006
Sault Ste. Marie.	98,200
Nipigon river and tributaries.	79,340
Kaministiquia river.	31,265
Other tributaries of lake Superior.	62,532
Winnipeg and English river system in Ontario.	203,838
James bay slope under natural flow.	800,000
Ontario tributaries of the Ottawa river.	87,920
Ottawa river from its mouth to lake Timiskaming.	422,162
Quebec tributaries of the Ottawa.	433,490