

by the generating and transmission of electricity. . . . That there is no more good reason why the province should generate and transmit electricity at and from Niagara Falls than from the Ottawa River, the Sault Canal, or any other location where water-power can be produced, the fact that it looks like a profitable undertaking should have no effect on the advisability or justice of the proposition.

Incidentally, some very bitter feeling has developed between the city authorities and Mr. Beck, the latter, it would appear, having stated that the council were instigated in their opposition to his "chimerical electrical power scheme" by outsiders, and that body having absolutely denied that there is the slightest foundation for the charge.

In Brantford still another phase has presented itself; the gas company having announced that they can supply natural gas for both power and light cheaper than the rate promised in the municipal power report. Brantford wants electric energy principally for industrial power, and if the gas company can deliver power cheaper, there may be opposition to joining the scheme of municipal power development.

GREAT LAKES COMMERCE.

The growing commerce of the Great Lakes of North America has at various times in the last forty years caused a demand from vessel-owners for successive deepening of the connecting rivers between the lakes. St. Mary's River, flowing southward from Lake Superior; the flats of St. Clair River and Lake; and Detroit River, both of which latter are between Lakes Huron and Erie, have all needed to be deepened. At first, the requests of the vessel men were for no more than a depth of twelve or fourteen feet, increasing in more recent years to seventeen, to twenty, and now to twenty-two feet. But for the last fifteen or twenty years the cry has been for "a twenty-foot channel in all great harbors and connecting rivers," and this is what the American navigators believed they had got—only they could not load their steamers, whose size had meanwhile grown, safely beyond eighteen feet draft, a restriction which they resented.

Quite recently, even before twenty feet depth of water is every where secured, there has arisen a demand for a twenty-two foot, and by some a twenty-five foot channel through the connecting waters of the Great Lakes from Chicago on Lake Michigan, and Duluth on Lake Superior to Buffalo, on Lake Erie. This great stretch of fresh water embraces a thousand miles, and is crowded with steam and sail craft for five months of the year, to an extent that is scarcely paralleled on any route in the world. And United States engineers have made a report upon these projects to the Lake Carriers' Association, whose president is Mr. Wm. Livingstone, of Detroit. The report does not favor the idea of the greater depths suggested. The recommendation of Col. Lydecker, division engineer, and Mr. Davis, district engineer, is that the twenty-two foot and twenty-five foot channel plan be deferred.

"Well-informed vessel owners have stated that the limit of size of vessels which can be operated to advantage has been closely approached, and our position is this:—Finish the twenty-foot channel now under construction, and then wait awhile until we see what the result may be. It has also been stated that terminal facilities at lake ports are proving inadequate to care for the great cargoes

which are now being dumped on the docks from a single vessel. This presents an economical problem which should be watched before going further with lake channels."

Mr. Davis' findings, forwarded last year to Washington, submitted estimates of cost of the whole route in addition to the many millions already spent, which are \$7,738,000 additional for a twenty-two foot, and \$25,938,000 for a twenty-five foot channel. Here are the figures:

	22 feet.	25 feet.
St. Mary's River	\$2,465,000	\$11,606,237
Lake Huron to Detroit River. 1,080,720		2,334,180
Detroit River (plan A, east route)	4,115,430	11,571,450
Gray's Reef passage	77,220	426,500
	<u>\$7,738,970</u>	<u>\$25,938,367</u>

To these sums, or rather to either of them must be added the cost of deepening the harbors of Chicago, Duluth and Buffalo to correspond with the deepened channels. Nowhere along the busy route has more effort and money been spent than on the Lime-Kiln Crossing of Detroit River, mainly in British waters, near Amherstburg. More than thirty years have elapsed since the nine feet water over "Anderdon Rock" was first deepened to twelve feet. Since then to fifteen, and more with a width of 300 feet to accommodate steamers 500 feet in length. Boats of the present century approach 600 feet, and they could be loaded, it seems, to more than twenty feet draft. What the American engineers now say is; let the twenty-foot channel here leading to Lake Erie thro' British waters be now completed, and turned over to commerce for up-bound craft. But in view of the further probable increase of traffic they recommend a second channel, which is proposed to be west of the Canadian island of Bois Blanc, and wholly in United States waters. This to be made 300 feet wide as far as Bar Point, beyond the mouth of the river, and 800 feet wide thence to deep water in Lake Erie, the whole to be carried down to a depth of twenty-two feet at a cost of \$6,670,950, and used for downward-bound craft. The work will probably occupy five years, for much of the proposed channel has a rock bottom. Still the engineers, who are evidently not carried away by the vehement insistence of some of the vessel men, say: that the deepening to either twenty-two or twenty-five feet of any existing channel "should be deferred until it be plainly shown that a safe and reliable twenty-foot channel is not equal to the necessities of lake commerce." They do not, therefore, go further than recommending that Congress approve and provide for only such modification of the present project of improvement as will secure this result.

It is a disappointing thing to many Canadians that so small a share in the improvement of these great waterways has been taken by Canada. Only one or two appropriations of one or two hundred thousand dollars apiece are recalled as being contributed by the Dominion while Uncle Sam has spent many millions. Perhaps the powers at Ottawa considered we had done our share for inland commerce in the Welland Canal and the St. Lawrence Canals, and the deepening of the great river to tide water, and the Sault Ste. Marie Canal. But it cannot be forgotten that this country has a great and increasing interest in Lake Superior and Lake Huron, that our lake commerce is growing,

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