

External Affairs
Supplementary Paper
No. 53/3

St. Lawrence Seaway and Power Project

An address by the Minister of Transport, Mr. Lionel Chevrier, delivered at the Annual Banquet of the Chamber of Commerce, Ogdensburg, N.Y., January 22, 1953.

It has given me a great deal of pleasure to be invited to address the members of the Ogdensburg Chamber of Commerce at their annual banquet. As I crossed the border at Prescott this evening I could not do otherwise but reflect on two matters that struck me with force.

The first is that we are good neighbours and that ours is a much crossed boundary. No other two countries in the world have the same relationship as we have; our relationship is on a different plane from that enjoyed by any other two countries.

Our boundary is crossed by more trade, more travel, more tourists, more money, more radio, more television, more trains, more cars, more newspapers, more symphony music, more hockey, more football, than any other two countries in the world.

In peace as in war we do the same things and frequently we do them together.

Secondly, we think alike. The fundamentals of national thought are the same for both your country and mine. Ours is a new nation in a world's old history. So is yours. We are not chained by tradition, nor have we fallen heir to the age old hates of Europe and Asia.

Your Calvin Coolidge once said "Whether one traces his Americanism back three centuries to the Mayflower or three years to the steerage, is not half so important as whether his Americanism is real or genuine. No matter on what various crafts we came here, we are all now in the same boat."

My subject is the St. Lawrence Seaway and Power Project, a matter of direct concern to all of us here tonight. As you well know, the question of deepening the St. Lawrence is not a new one. It has been agitating public opinion for at least a century. During the last fifty years, it has been the subject of negotiations between Canada and the United States. These negotiations culminated in the signing of an Agreement between our two countries in 1941.

The boundary line between Canada and the United States follows the 45th parallel of latitude until it strikes the St. Lawrence River at the point where the boundary of the Province of Quebec meets the boundary of

the Province of Ontario, a few miles east of the City of Cornwall; thence for a distance of 115 miles it runs westerly through the middle of the river in what is known as the International Rapids section. Hence, in order to develop the St. Lawrence, it is necessary to seek the concurrence of the United States.

What is the proposed Great Lakes-St. Lawrence Seaway?

It is a 1,200-mile channel, 27 feet or more in depth, extending from Montreal to the head of the Great Lakes. Together with the St. Lawrence Ship Channel, already provided by Canada, it will create a 2,000-mile route from the Atlantic Ocean to the heart of the North American continent. Its proponents seek the deepening of the present channel in order to allow 25-foot craft to carry their cargoes through the St. Lawrence River up to the Great Lakes and conversely to permit large Great Lakes freighters to reach Montreal. Coupled with this is the development on a joint basis of 2,200,000 horsepower in the international section of the St. Lawrence River with the power equally divided between the two countries.

The Great Lakes-St. Lawrence Seaway should be distinguished from the St. Lawrence Ship Channel which is a channel extending from Montreal easterly to a point 30 miles below Quebec. This channel was deepened by the Federal Government for the purpose of providing safe navigation for ocean-going vessels from deep water to Montreal. It has a depth of 35 feet at extreme low water and it will provide a link with the Great Lakes-St. Lawrence Seaway when the latter is completed.

The Great Lakes-St. Lawrence Seaway is but a small part of what is known as the Great Lakes-St. Lawrence Basin. This is a vast drainage system covering an area of 678,000 square miles, 493,000 of which are in Canada and 185,000 in the United States. It includes Lake Superior, Lake Michigan, Lake Huron, Lake St. Clair, Lake Erie and Lake Ontario, together with all the tributary rivers and streams, the most important of which are the St. Lawrence River, the Ottawa River, the St. Maurice River and the Saguenay River. The height of land in Canada at the northern limit of this drainage area averages about 1,800 feet above sea level.

You will therefore immediately appreciate the economic significance of this vast drainage basin comprising a potential waterway, together with a potential reservoir of white power in an area of Canada where no coal or black power is available.

What does the Great Lakes-St. Lawrence Seaway consist of?

It consists of five steps which are its chief assets and its chief liabilities.

Chief assets, because they contain 9 million horsepower of electrical energy, most of which is undeveloped. Chief liabilities, because these steps have to be levelled out in order to permit 25-foot craft to ply from one end of the seaway to the other. The five steps are:

- 1 - St. Mary's Falls lying between Lake Superior and Lake Huron -- where there is a drop of 21 feet.
- 2 - The St. Clair-Detroit passage joining Lake Huron and Lake Erie -- where there is a drop of 8 feet.
- 3 - Niagara Falls which separates Lake Erie from Lake Ontario and which has a drop of 326 feet.
- 4 - The St. Lawrence River section which includes the International Rapids section, the Lake St. Francis and the Soulanges section, and the Lachine section, where the drop is 225 feet.
- 5 - Montreal to the sea -- the portion which lies wholly in Canadian territory and in which there is a drop of 20 feet.

These five steps will, it is estimated, develop approximately 9 million horsepower divided as follows:

At Niagara 3,600,000 h.p.

In the International Rapids section 2,200,000 h.p.

In the Beauharnois or Soulanges section 2,000,000 h.p.

In the Lachine section 1,200,000 h.p.

All of this power is Canadian with the exception of 1,800,000 horsepower at Niagara and the American share of 1,100,000 horsepower in the International Rapids section.

To what extent have these potentialities been developed?

For navigation, Canada has already spent \$300,000,000 to provide a dredged channel of 35 feet to Montreal; a 14-foot canal system between Montreal and Lake Ontario; a 25-foot channel between Lake Ontario and Lake Erie, and a lock at the Sault. The United States has provided locks at the Sault and dredged channels between Lake Huron and Lake Erie.

Canada has spent \$300,000,000 upon these potentialities to enable wheat from the Prairies to move from the head of the Lakes by water to the sea, a distance of 2,000 miles. Thus, Canada's wheat crop was able to reach the European market and there compete favourably with the wheat of other countries. Again, these sums were spent to provide an alternate route for Canadian wheat exported to European countries vis-a-vis that provided by the United States through the Erie Canal and the Hudson River to New York City. The completion of the Welland Canal permitted our wheat, along with other products, to flow through this natural course down the Lakes into the St. Lawrence River and on to the British market. The completion of the Great Lakes-St. Lawrence Seaway to a full depth of 27 feet would guarantee forever an all water route for our commodities at a substantially reduced transportation cost, through the elimination of transshipment at such points as Prescott, Port Colborne and Port McNicoll.

From a power point of view 100,000 horsepower have been developed at the Sault; 1,800,000 horsepower at Niagara; 93,000 horsepower at Massena, N.Y., and 1,000,000 horsepower at Beauharnois. Therefore, out of a total potential of 9,000,000 horsepower, barely 3,000,000 horsepower have been developed, or approximately one-third.

Why is the project necessary from a power standpoint?

As a result of the rapid postwar expansion of industry in Canada, together with a constantly rising consumption of domestic power, the Province of Ontario has been, for the past few years, faced with an acute shortage of power to meet demands. This is further accentuated by the present increasing activity in defence production. The International Rapids section with its 2,200,000 horsepower potential -- one-half of which belongs to Canada -- constitutes the remaining large block of undeveloped hydro power available to Ontario in the southern portion of the province.

Insofar as the Province of Quebec is concerned, with the increased output at Beauharnois to be available in the near future, the power situation in the large industrial area adjacent to Montreal will be satisfactory for but a few years. I am credibly informed that some of the power will be required from the Lachine section fairly soon if the present rate of growth in power demand continues.

Why is the project necessary from a navigational standpoint?

The seaway as it now stands has a depth of 35 feet from Montreal to the sea, 25 feet from Prescott to Lake Erie, 21 feet downbound and 25 feet upbound from Lake Erie to the head of the Lakes and only 14 feet from Prescott to Montreal. It is therefore clear that the seaway has been largely completed on both sides of the St. Lawrence River section. This is the bottleneck which must be removed to allow deep sea vessels to ply between the ocean and the Great Lakes.

The newly discovered iron ore fields of Northern Quebec and Labrador can be most speedily exploited only when the St. Lawrence Seaway is completed. For years the backbone of the steel industry in the United States has been high grade iron ores of the Mesabi Range to the south of Lake Superior. The high grade ores from these fields are being rapidly depleted and that factor accounts for the interest in the fields of Quebec and Labrador, where upwards of 400,000,000 tons of high grade ores have been proven already.

What is the present position?

In my opening remarks I mentioned an agreement between Canada and the United States on the seaway and power project, signed in 1941. As you know, Canada no longer looks for ratification of that agreement. It has been superseded by the new plan for an all-Canadian seaway, with the associated power development undertaken by separate entities in the two countries (Ontario Hydro, in Canada).

At our instance the two federal governments joined in requesting the International Joint Commission on June 30 last to approve the construction of works for the international power development. The Commission completed its deliberations in less than four months, issuing its order of approval on October 29. On September 22, meanwhile, the Power Authority of the State of New York renewed an earlier application to the Federal Power Commission for a license to develop the United States half of the power. The Federal Power Commission has not yet announced its decision.

May I remind you that the new plan was first broached to the United States by Canada on September 28, 1951, when our Prime Minister paid an official visit to the President. At that time the President undertook to give the Canadian proposal his full support, if Congress failed to give early approval to the 1941 agreement. The matter was followed up last Easter when the Honourable Mr. Pearson and myself saw the President. He then agreed to the preparation of the power applications to the International Joint Commission, since made and approved. We now look for the final move that will give effect to the President's undertaking, that is, the authorizing of an entity to develop the United States share of the power in the International Rapids section of the St. Lawrence River.

Here I would like to record what Canada has done to expedite the new plan. The original Canadian proposal, apparent in the Canada-Ontario agreement of December 3, 1951, contemplated among other things that the entities developing power would either provide works to continue the present 14-foot navigation or make a cash payment in lieu thereof, a matter of something over \$14 million. Canada has now agreed to waive this requirement, since new and deeper canals on the Canadian side would make the 14-foot ones unnecessary.

Secondly, Canada has agreed to contribute \$15 million towards the cost of channel enlargements by the entities developing power, in consideration of the benefit which will accrue to navigation in an all-Canadian seaway.

Thirdly, Canada has removed the Gut Dam, which we built in 1903 between two islands in the St. Lawrence. Law suits are pending in United States courts concerning the effect of that dam, and hence I do not wish to comment on the matter here. But Canada did offer to remove the dam as soon after the power works were approved as river conditions would permit, and subsequently the I.J.C.'s order of approval was made conditional on the removal of the dam. Removal was completed on the sixth of this month.

Fourthly, Canada and Ontario together have offered to supply the Aluminum Company of America with power for its Massena plant during the construction period. This was a matter of concern to the company, which draws power from a smaller development on the river and feared interruption of operations.

These and other things Canada has done to show its willingness and its anxiety to get on with the project.

I think you will agree that we are doing our utmost.

In the United States a new Congress is sitting and a new executive has taken over. New proposals for United States participation in the seaway have been made. All I can say at this time is that, as we have already made clear, we would be glad to explore the possibility anew, providing that this does not delay the development of power under present arrangements and does not cause any serious delay in the completion of the whole waterway.

How will the project affect the area in the international section of the river?

It will change the whole front on both sides of the international boundary line, for a distance of fifty miles. The project approved of is what engineers term the 238-242 controlled single stage project. It consists of:

- 1 - A dam in the Long Sault Rapids and two power houses a short distance below this, one on the Canadian side, one on the American side, each capable of developing 1,100,000 horse-power. This dam will flood communities on both sides of the river and on the Canadian side for a distance of approximately thirty miles by a width of one to three or four miles.
- 2 - A control dam in the vicinity of Iroquois Point, the object of which will be to control the level of the pool and to protect the down river interests at Montreal.
- 3 - A side canal to carry navigation past the Long Sault Dam and a side canal to circumnavigate the control dam at Iroquois.
- 4 - Dikes where necessary.

The 238-242 single stage project means that after its completion, it will be 238 to 242 feet above sea level. The average elevation along the front from Cornwall to Prescott is 220 feet. It is easy then to visualize that upon completion, communities such as Mille Roches, Moulinette, Wales, Dickinson's Landing, Farran's Point, Aultsville, Iroquois and one-half of Morrisburg, will in some cases be from 18 to 22 feet under water. All along the front for a distance of thirty miles communities will be submerged. Farmhouses, schools, churches, cemeteries and homes will disappear. These, it is hoped, will rise again on the new shore line, where modern and up-to-date communities will relocate.

Is the project urgent from the point of view of defence?

From the point of view of national defence, I believe that the development of the St. Lawrence Deep Waterway is of the greatest importance. Without the construction of the Seaway, the large deposits of high grade iron ore in Labrador cannot be moved economically and expeditiously to the Great Lakes steel centres.

Shipbuilding and ship repair could not be increased advantageously in the relatively well protected Great Lakes shipyards and no relief could be afforded in times of emergency to land transportation between Montreal and the head of the Lakes.

Look at the map of North America, and you will find that the Great Lakes-St. Lawrence Seaway lies almost in the centre of the five physiographic regions of the North American Continent. The upper end of the seaway links the Canadian West to the Atlantic seaboard and the American West to the Port of New York. It joins the wheat fields of Western Canada to the United Kingdom market.

When one realizes that more yearly tonnage passes through one of the bottlenecks in the Upper Lakes region, namely the locks at Sault Ste. Marie, than through the Panama, Suez, Manchester and Kiel Canals put together, this gives some idea of the tonnage that is likely to come through when the development is completed. The building of the Panama Canal through the Isthmus of Panama, the construction of the Suez canal linking the Mediterranean with the Red Sea, were logical projects. They were the inevitable and the right thing to do, no matter at what cost. On the proposal to construct the deep waterway in the St. Lawrence River to link the Great Lakes to the Atlantic Ocean, the verdict will be the same. If you were to draw a circle having a radius of 75 miles around the Long Sault Rapids, you would have within this circle no less than 6 million horsepower of electrical energy, most of which has been undeveloped. What this will mean to the Provinces of Ontario and Quebec and the State of New York, I need hardly explain to an audience such as this.

We are indeed a fortunate country. Not only have we vast natural resources but nature has given us great rivers and streams surging with undeveloped water power. We have in Canada a potential of 55 million horsepower. About one-third of this is to be found in the Great Lakes-St. Lawrence basin and 6 million of it is within this radius of 75 miles. The production of electrical energy is not an end in itself. But it is a means to an end. It supplies services and facilitates production. The true significance of electric power lies in its relationship to the general economy of Canada. Some two-thirds of the total national production of electricity is absorbed by our manufacturing industries and of these, five major industries use over half of the total power generated for consumption. These are pulp and paper, primary iron and steel, abrasives, electrochemicals and the smelting and refining of non-ferrous metals. When one realizes that these five industries are both directly and indirectly responsible for approximately one-third of the gross value of our manufactured goods, then the importance of low-cost power to an industrial machine is clearly evident.

The prosperity of Canada is to a very large extent dependent upon industrial production and the latter is impossible without power. Hence, the benefits of this great project to both Canada and the United States, are incalculable.



The friendly relations existing between Canada and the United States for well over a century have been greatly enhanced by two world wars. These wars and particularly the last one have brought us together more than ever before. They have shown that on many problems not only do we think alike but frequently we act together. Such was the case of Ogdensburg, on the Permanent Joint Board on Defence, at Hyde Park, on the Alaska Highway, in the Northwest Passage and perhaps more particularly in the air by means of our trans-border services. Our governments think alike on the development of the St. Lawrence waterway. I believe the vast majority of our people think alike, but we must translate this thinking into action. We must act together upon it so that, to use the words of a great British statesman, in the days to come the Canadian and the American peoples will, for their own safety and the good of all, walk together in majesty, in justice, and in peace.

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