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No. 51/48 CANADA'S VIEWPOINT ON THE DEVELOPMENT OF THE ST. LAWRENCE SEAWAY

Text of an address by the Minister of Trade and Commerce, Mr. C. D. Howe, at the annual dinner of the Washington Society of Engineers, made in Washington, D.C., on November 28, 1951.

In looking about for a subject of mutual interest, it has occurred to me as worthwhile to give you the Canadian viewpoint on the development of the St. Lawrence Seaway. The subject is timely, in that Canada has introduced legislation to establish an authority to undertake the building of the seaway as an all-Canadian project, located in Canadian territory. You will recall that, more than ten years ago, Canada and the United States negotiated an agreement which provided for the building of the seaway as a joint enterprise. Canada has let ten years go by waiting for the United States Senate to approve the agreement "next year", so we could get on with the job. Canada now finds that the limitations of the present canal system are hindering the development of the Canadian economy to an extent that immediate action seems necessary in order to remove a serious bottleneck in water transportation between the Great Lakes and the Atlantic Ocean. Canadian demands for hydro-electric power are increasing at a rate that urgently requires the development of the Canadian power resources that will be made available by the development of the seaway. We in Canada feel that the building of the seaway and the development of the power cannot be longer deferred.

There is no lack of desire on the part of Canada to proceed with the joint project, and the door will be left open for participation by the United States, should there be ratification of the 1941 agreement early in the year 1952. It will be necessary in any event that we ask the United States to designate an authority to develop the United States' side of the International Rapids Power Development. We think we have the right to expect co-operation to that extent from your Government, having in mind the long interval during which lack of ratification by the United States has delayed the project.

It has seemed to me that the project to deepen the St. Lawrence River access to the Great Lakes, and to develop the hydro-electric power incidental thereto, has suffered more from the enthusiasm of its friends than from the opposition of its enemies. Too often the project has been represented as something new and revolutionary, so immense as to stagger the imagination. Too often has the picture been painted of great ocean ships travelling up the waterway to ports on the Great Lakes. Quite naturally, this enthusiasm, however sincere, arouses a good deal of skepticism from those who do not stand to benefit directly from the project, as well as an unreasonable fear on the part of those who feel that their interests would be adversely affected.

In brief, the plans now being laid are nothing more than the final stage of a development that has been going on for well over a century, with beneficial results for the peoples of both Canada and the United States. This final stage should be undertaken now simply because we have outgrown the facilities that are in existence. The present navigational channels are no longer able to support the demands that are now being placed upon them, and are still less adequate to meet growing demands to handle new traffic presently in sight.

As I see it, and as I think the great majority of Canadians see it, further development of the Great Lakes--St. Lawrence navigation system, far from being a visionary scheme, is a simple necessity. It is no longer something that would be nice to have, if it could be afforded. The St. Lawrence Seaway and all that goes with it in terms of added hydro-electric power and improved navigation has become something that we, the people of Canada, can no longer afford to do without.

Let me first describe the major works that make up the project.

The St. Lawrence Seaway project in its entirety includes the proposed deepening and improving of the channels now connecting the four Upper Great Lakes, bringing them up to the navigation standards of the present Welland Ship Canal which connects Lake Erie with Lake Ontario over the Niagara Escarpment. However, these channel improvements do not form part of the project presently contemplated by Canada. The 25-foot navigation presently available in the Upper Great Lakes is sufficient for Canada's present-day purposes.

The Welland Ship Canal was built by Canada on Canadian territory more than twenty years ago. It is operated without tolls and its operating expenses are paid for by Canada. It presently provides for 27-foot navigation, with provision for deepening to 30-foot navigation, as required. The navigation standards of the Welland Ship Canal are those projected for the seaway improvements now being contemplated. The improvements that make up the project that faces Canada today are largely confined to that strip of the St. Lawrence River between Prescott, Ontario, which is opposite Ogdensburg in New York State, and Montreal, Quebec, a distance of 114 miles, which constitutes the present bottleneck of the Great Lakes - St. Lawrence water transportation route.

In this section, the great rapids in the St. Lawrence River offer at once an obstacle to navigation and an opportunity to harness power. Only the smaller part of that potential power is harnessed now, and the narrow canals that by-pass the rapids have small locks and a limiting depth of 14 feet. From Montreal harbour to the sea, there is at present a 32½-foot channel, which has made the harbour of Montreal one of the world's busiest ocean ports. This ship channel below Montreal is presently being deepened to 35 feet.

The channels in the St. Lawrence above Prescott are deeper than 27-foot now. The power development presently planned for the International Rapids section at or near Cornwall, Ontario, will provide 27-foot channels throughout the section, subject to minor improvements at its upper end.

Above Prescott, large lake freighters can navigate to the head of the Great Lakes. The biggest of them carry more than 20,000 tons of cargo, and are said to provide the cheapest transportation in the world. But only small vessels, carrying 3,000 tons or less, can navigate the 114 miles between Prescott and Montreal.

You will readily see that the five Great Lakes are the bottle, while the St. Lawrence River between Prescott and Montreal is the neck. The seaway project, which Canada is ready to undertake, would remove that bottleneck. The proposal is to dam the river to develop available power, which will flood out the rapids with artificial lakes, to by-pass the power dams with the short canals, and to do such other works as will provide a continuous 27-foot navigation waterway.

Major works of the project are located at three points: the International Rapids section; the Soulanges section; and the Lachine section. Of these three projects, work in the International Rapids section is the most extensive and costly. The basic power development in this section includes an upper control dam near Iroquois and a main dam and powerhouse above Cornwall. The 1941 treaty between our countries proposed that the navigation canal, by-passing these dams, would be on the United States' side of the river, but there is nothing to prevent these canals being built on the Canadian side instead, given the basic power development. In fact, such alternative plans have been prepared.

The Soulanges section is wholly within Canada, in Quebec Province. Here the major portion of the work has already been done in connection with the existing Beauharnois power development. Thanks to the foresight of the Canadian Government, the wide power canal was designed to serve as a link in the deep-water seaway. The navigation work remaining to be done is little more than the installation of locks at the lower end of the power canal, for which provision has been made, and the dredging of connecting channels.

Finally, in the Lachine section, which is immediately above Montreal Harbour, the minimum development would be for navigation only. In that event, the main works would consist of channel enlargement and a 10-mile canal with locks. But, in this section also, there is potential for a large-scale power development that would provide an even better navigation link. The Province of Quebec is directly concerned with the power development, and discussions have been opened which may lead to building a combined power and navigation project.

So much for an outline of the work involved in the project proposed to be undertaken by Canada. You may now be asking the question: "What is the demand for power, and what are the needs of navigation that make the project so urgent today?".

Let me say at once that circumstances have changed completely since 1941, when the project was first advanced in its present form. Then, the demand for power was growing at a comparatively slow rate. It promised to take a considerable number of years for such a large new block of power to be absorbed, particularly in Ontario, and that province still had other smaller hydro sites to develop as needed.

Neither Ontario nor New York felt so hard pressed for power as to consider development of the International Rapids between them, although they were willing to take over development of the power facilities as the lower cost made possible by a joint development for power and navigation. The power benefits thus were accepted, at that time, as secondary to the navigation benefits, which offered the main incentive to undertake the project.

Now, confronted with the great post-war expansion of industry, and the present defence programme, power is a primary objective in itself. The Province of Ontario and the State of New York are so anxious to obtain additional power that, since 1948, they have themselves sought to undertake jointly a separate power development, completely independent of navigation. The application of the State of New York for permission to undertake the United States' share of such a power development has been filed with your Federal Power Commission, and has been denied by that body, on the grounds that power and navigation must be developed jointly. Other states in the neighbouring area have also demanded a share in such a project.

Now, too, as I shall elaborate later, the proposed navigation facilities take on a new importance, with the continuing growth and diversity of traffic presently being experienced, and in anticipation of the opening of the iron ore fields in Labrador and Quebec. The steel industries on the Great Lakes require access to a new and expansible supply of iron ore which cannot be provided with economy until the navigation bottleneck is removed. Let us, therefore, re appraise briefly what the deep-water project has to offer in terms of power and navigation.

The proposed power installations in the International Rapids development total about 1,640,000 kilowatts of firm power, half for United States, half for Ontario. The Chairman of your Federal Power Commission has testified before a Congressional Committee recently that within a radius of about 300 miles the project could deliver energy cheaper than steam plants at the consuming centres. This United States' market presently could absorb an additional 850,000 kilowatts each year, and in the Commission's view this rate of expansion will be required for at least a decade. The 820,000 kilowatts which would accrue to the United States' portion of the development at the International Rapids thus is equal to just about one year's increase in requirements.

In Ontario, there is also an inadequate reserve of generating capacity, particularly in the southern power system that would be served from facilities at the International Rapids. A recent treaty between our countries has made possible redevelopment at Niagara, that will bring in perhaps 450,000 kilowatts of installed capacity in 1954 or 1955, but, except for the St. Lawrence River, this is the last important source of hydro power open to the southern part of the province. Meanwhile some 520,000 kilowatts of steam capacity are being built to meet the phenomenal demand. In this situation, the Chairman of the Ontario Hydro-Electric Commission is on record as requiring power from the St. Lawrence by 1956. The only alternative is further resort to much more costly steam generation.

The basic power development in the International Rapids section will cost about $400,000,000 at present day prices. All those present will agree that the expenditure of $400,000,000 to provide 1,640,000 kilowatts of firm power, and with the development located in the centre of an industrial area, is a good business investment. Thus we can look to the

sale of power to carry the capital cost of the development in the International Rapids section, except for the relatively small proportion of the project that will apply directly to navigation. Those, very briefly, are the reasons why a power development in the International Rapids section is urgently required, regardless of the navigation aspects.

Coming to the Soulanges section, I have stated that the power and navigation canal, and the power development, has already been constructed. The Beauharnois Power project in this section has a potential capacity of 1,490,000 kilowatts, of which present power installations now develop about 1,040,000 kilowatts, or roughly two-thirds of its ultimate projected capacity. The Beauharnois development is of interest here mainly because it was begun as long ago as 1929 by private interests, and produced its first power in 1932. The power project was undertaken independently of the seaway, although, through the intervention of the Federal Government, its works were modified to suit the seaway plans as part of the cost of developing power. Little remains to be done in this section to complete the seaway, other than the building of navigation locks.

In the Lachine section, another 900,000 kilowatts of power is capable of development as part of the seaway project, although the building of the seaway without the power development can be undertaken without greatly increasing the cost of the seaway, leaving the power development until a later date. The Province of Quebec has already harnessed more hydro-electric power than any other Canadian province but, here again, reserve capacity is considered inadequate in the face of mounting demand. The need can be met for a time by alternative hydro developments, or by a final expansion of Beauharnois. Here again, the development of 900,000 kilowatts of firm power located in the heart of the Montreal industrial section at a cost of $200,000,000 is a good business investment, and it may well be that the Province of Quebec will wish to proceed with power in conjunction with navigation.

The cost of power development will thus be borne by the provinces, and by the American authority that will own the power. The remaining cost to be borne by the Government of Canada on behalf of navigation will, at present prices, amount to between $250,000,000 and $300,000,000. That size of a navigation undertaking represents no more in terms of materials and manpower--or in "constant dollars", if you like--than the Welland Ship Canal, which the Government of Canada completed some twenty years ago.

The Welland Ship Canal was built as a unit in the St. Lawrence Seaway, that we are still talking about. It cost about $132,000,000 at a time when Canada had far less economic strength than today, yet no tolls have been levied against Welland Canal traffic to pay operating costs of the canal and to amortize the investment. If Canada could manage that, then Canada certainly can manage the further work in developing navigation in the St. Lawrence River that is now being undertaken, particularly as tolls will be charged on canal traffic to amortize the new expenditure and to pay operating costs of the canal.

As I have already said, the objective of the seaway project is to eliminate the bottleneck that prevents the movement of large vessels between the Great Lakes and the Gulf of the St. Lawrence. This bottleneck has made for higher

transportation costs for the very great volume of traffic that moves over the existing waterway, including the present 14-foot canals. Cargoes of wheat and other bulk commodities, that move on the Great Lakes in large carriers capable of carrying 20,000 tons or more in one cargo, must be trans-shipped into boats having a maximum capacity of 3,000 tons of cargo, and again trans-shipped at Montreal, or at one of the other river ports, into ocean carriers. The economies to be effected in these movements alone would have justified completion of the deep waterway years ago.

A new factor to be considered at this time is the development of a great iron ore project on the Quebec-Labrador border, which will have its outlet to deep water on the Gulf of the St. Lawrence. Some $250,000,000 are presently being spent on this iron ore project, which includes a railroad 350 miles in length and extensive harbour construction. It is anticipated that the initial deliveries of iron ore from this project will be at the rate of 20,000,000 tons per annum. Without the deep-water development, important markets for these ores in the Great Lakes area are out of economic reach. On the other hand, Quebec-Labrador iron ore is the best possible answer to the supply problems of steel industries located on the Great Lakes.

Consider the position of the steel mills in the Great Lakes district, which account for about 75 or 80 per cent of the steel produced in the United States. Ore requirements continue to rise, not only because of additions to steel capacity, but because, with a shortage of scrap, it is taking more pig iron to make a ton of steel. The ore comes preponderantly from the iron ranges of the Lake Superior district, but production of the types now in use has just about reached its maximum annual rate. Notice I do not say that exhaustion is imminent. Without going into that subject, I say only that there is little hope of an increased rate of production. Current rates may be maintained for some years, but after that a more or less slow decline is in prospect. The problem is one of a growing gap between supplies and requirements.

There is more than one source of new supplies to fill this gap, and probably each will be used to a greater or a lesser extent. Without the seaway, however, the solution of the problem promises to involve more costly ore for the mills of the Great Lakes district, and to be less satisfactory all around. It will take a considerable increase in ore prices to make imports competitive much further inland than Pittsburgh. Quebec-Labrador ore would be only one of several strong contenders for the more limited market tributary to the seacoast.

Processes are being developed for concentrating one form of taconite, available in the Lake Superior district, but it has not yet been demonstrated that commercial production is possible at present prices. The best hope is that the concentrates would be competitive if production could be maintained at full plant capacity. On the other hand, the high overhead of the concentration plant would make it vulnerable to any slackening of demand. Accordingly it appears that it would take a similar substantial increase in Lake ore prices to bring about a development of this source on the scale required.

Construction of the seaway would alter this picture completely. After paying any likely toll, it appears that Quebec-Labrador ore could compete at current price levels through most of the Lakes district. Moreover, low-cost shipments could be made in any volume likely to be in demand, for the high-grade ore deposits occur over wide areas and are ideal for open-pit mining. In short, the seaway gives the best answer to the ore problem, both in terms of price and ready availability.

It is obvious that Canada is concerned with the best and largest markets for her iron ore. Surely it is also obvious that Canada, as well as the United States, is concerned that the interior steel districts have access to the best and cheapest sources of ore. Our economies have taken for granted a plentiful supply of iron and steel at comparatively low prices, and the implications of the threatened higher costs in these fields have received too little attention. The seaway promises to avert the worst of this threat. That is why I say it is literally invaluable.

The transportation economies to be expected in other fields are important too, though the effect will be less spectacular than in the case of iron ore. As it happens, these other economies promise to be all the greater because of the new ore traffic. A new pattern of vessel movements is foreseen with a better balance of up-bound and down-bound cargoes, hence with a more economical use of shipping. All of us who are concerned with the movement of commodities up and down the inland system are acutely aware of the need for greater efficiency in shipping. The savings might amount to some $10 million in the annual cost of moving grain, $5 million for coal, and $15 million for other commodities, after paying any probable toll.

So far, I have discussed the project pretty much in terms of peacetime trends. Today, we must ask what its contribution would be in war. Would it be vulnerable to attack? Should it be started in the present period of material shortages? These are all large subjects. Here I can only highlight the considerations as I see them.

The project would make at least a five-fold contribution in a future war. It would create a reserve of power capacity in the industrial heart of the North American Continent, where that reserve is presently inadequate for peacetime needs. The combination of power and navigation will stimulate a versatile industrial growth, giving greater capacity for the specialized production required in modern war, and permitting greater dispersal of that production. The seaway would permit all but the largest ocean vessels to be built a thousand miles from the sea, adding flexibility and dispersal to the programme of shipbuilding and repair. It would provide an alternative transportation route to the railways, so hard pressed in the late war. But above all, it would provide the best assurance of adequate supplies of iron ore to feed the steel furnaces of the east coast, as well as the Great Lakes.

All-out war brings great new demands for steel and ore, far more than can be met by diversions from peacetime use. Consider the alternative sources for these new supplies: taconite concentrates, seaborne imports, and seaway shipments from Quebec and Labrador. Taconite production simply could

not be expanded rapidly, unless costly plants were held idle in reserve, and the time taken to build additional capacity might well prove fatal. Seaborne imports would be vulnerable to enemy action, putting still greater strain on other sources. You may recall that, during the last war, millions of tons had to be shipped from the Lake Superior ranges to the east coast. But if the seaway is open and the initial development complete in Quebec and Labrador, the needed production could be had simply by putting more shovels to work.

That raises the second question: how vulnerable to attack are the seaway ore route, and the power and navigation works? I think the situation is this. These works could be damaged or destroyed by a determined attack. So could any one of the existing hydro developments, steam power plants, the locks at Sault Ste-Marie, taconite concentration plants, steel plants, or railway lines. But it would be extremely difficult to knock out all of the various alternatives at one time. The best overall defence, therefore, is to increase and disperse the most promising alternatives. On this basis the seaway project easily qualifies for a high priority, in both its power and its navigation features.

That pretty well answers the third question too, whether the use of scarce materials and manpower for this project is warranted at this time. It is precisely in a period of preparedness such as this, which may last for many years, that works should be undertaken to add to our economic strength and productive efficiency. That has been Canadian policy. The alternatives to the seaway involve other hydro or steam power capacity, transportation facilities, ore concentration plants and other expedients. The material and manpower requirements would add up to a greater total than would be required by the completion of the seaway. Moreover, these alternative facilities would be less suitable to the needs of war if it came, and some of them--the equipment and vessels devoted to supplying seaborne imports of iron ore--might well become comparatively useless at the end of the war.

In brief, that is why we in Canada favour completion of the St. Lawrence project at the earliest possible date. Canadian and United States interests are so entwined and interrelated that, to us, the case for United States' participation appears just as strong, or stronger. We are anxious for full participation, anxious specifically for participation under the terms of the 1941 agreement between our two countries. But that awaits your own decision, one way or the other. Continued delay in giving that decision forces us to consider how else our objective can be achieved.

The whole project hinges on the development of the International Rapids section. Below it the river is wholly within Canada, and Canada can and will complete the necessary works herself. Above it, and in the Great Lakes, the proposed channel improvements could be done under existing authority. As far as navigation is concerned, it is true that a new series of canals on the Canadian side could by-pass the International Rapids, just as the 14-foot canals do now. But Ontario is in urgent need of the power. At the very minimum, then, there must be some form of international co-operation to complete the basic power development in the International Rapids. Given this basic condition, Canada could add the navigation facilities and complete the other essential parts of the seaway.

Rather than proceed on this course, however, Canada would much prefer ratification of the 1941 agreement. The reason for this preference has little to do with the sharing of the cost. If the costs not borne by power are to be covered by tolls on shipping, it becomes of much less consequence who makes the initial expenditures, and Canada is quite capable of handling any necessary financing. The main reason for the preference is simply that work could start almost immediately after ratification. Any other procedure involves a new series of legal and engineering preparations, formal and informal consultations, perhaps public hearings, and other formalities which might easily take up a year or two.

On the other hand, we already have a ten-year record of looking for ratification "next year". Time is now running out. Each additional year of delay costs us more dearly in money and security. Failing early ratification, therefore, the Canadian Government has decided to undertake the so-called all-Canadian seaway, and to invite the necessary co-operation with respect to an international power development. We can still hope for ratification of the 1941 agreement, but meanwhile we are preparing a second string to our bow.

It has been suggested in some irresponsible quarters that the Canadian proposal was a bluff, that Canada could not and would not undertake such a large project alone. I trust that the official announcement will put an end to that kind of talk. There is no bluff about Canada's attitude. We would need and would seek the co-operation of a designated agency in the United States to develop the international power. With that, we can and will complete the other essential works in the St. Lawrence River.

In conclusion, I would like to sum up the Canadian position in a very few words.

We in Canada want to see the St. Lawrence project completed at the earliest possible date. We believe that it is important for our mutual economic development and urgent for national defence. We believe not merely that it can pay its own way, but that the benefits to both Canada and the United States will far outweigh its original cost.

We would prefer to have full United States' participation in the project under the terms of the 1941 agreement, providing the agreement is to be ratified at an early date. Failing that, however, Canada will now actively proceed to undertake the project.

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