

ST. LAWRENCE SURVEY  
PARTS 1 TO 7.  
UNITED STATES  
DEPARTMENT OF COMMERCE.

1941.

UNITED STATES DEPARTMENT OF COMMERCE

JESSE H. JONES, *Secretary*

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# *The St. Lawrence Survey*

PART I

History of the St. Lawrence Project.



N. R. DANIELIAN, *Director*

ST. LAWRENCE SURVEY

*Reports of the St. Lawrence Survey*

- PART I. History of the St. Lawrence Project.
- PART II. Shipping Services on the St. Lawrence River.
- PART III. Potential Traffic on the St. Lawrence Seaway.
- PART IV. The Effect of the St. Lawrence Seaway Upon Existing Harbors.
- PART V. The St. Lawrence Seaway and Future Transportation Requirements.
- PART VI. The Economic Effects of the St. Lawrence Power Project.
- PART VII. Summary Report of the St. Lawrence Survey.

UNITED STATES DEPARTMENT OF COMMERCE

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PART I.

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N. R. DANIELIAN, *Director*

ST. LAWRENCE SURVEY

UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON: 1941

For sale by the Superintendent of Documents, Washington, D. C. •• Price 10 cents

DECEMBER 20, 1940

THE PRESIDENT,  
*The White House,*  
*Washington, D. C.*

DEAR MR. PRESIDENT: I have the honor to submit herewith a report on the history of the St. Lawrence project, which is Part I of a series of seven reports on the economic aspects of the St. Lawrence waterway and power project. This report was prepared in the Department of Commerce under the direction of Dr. N. R. Danielian, Director of the St. Lawrence Survey. The findings and conclusions of this section of the Survey are given in the Director's letter of submittal.

Very sincerely,

WAYNE C. TAYLOR,  
*Acting Secretary of Commerce.*

## LETTER OF SUBMITTAL

DECEMBER 14, 1940.

The Hon. SECRETARY OF COMMERCE,  
*Washington, D. C.*

DEAR MR. SECRETARY: I have the honor to submit a report on the history of the St. Lawrence project. This report is the first of several reports which are being prepared in the Office of the Secretary of Commerce, at the request of the President. They are designed to explore the economic advantages and disadvantages of the St. Lawrence waterway and power project and its effects upon existing harbors.

This report on the history of the St. Lawrence Project was prepared with the assistance of Mr. Michael Straight, now of the State Department. The Chief of Engineers, United States Army, the Power Authority of the State of New York, and the United States Department of State, have fully cooperated with reference to phases of this history which are within their respective spheres of interest. Their helpful suggestions have been incorporated into the study.

Briefly stated, this historical survey of the project establishes the following conclusions:

1. Both the Government of the United States and the Government of Canada have been interested since 1895 in the feasibility of opening the midcontinent of North America to ocean shipping at Great Lakes ports by constructing a canal of sufficient depth over the course of the St. Lawrence River, which is the natural outlet of the Great Lakes to the Atlantic Ocean.

2. In the course of the past 45 years several commissions were established by the United States Government to study and report upon the feasibility of constructing a canal from the Great Lakes to the Atlantic Ocean. All of these official bodies made formal reports in which they commended the economic and engineering feasibility of a waterway, and most of them favored the St. Lawrence route.

3. Every national administration since the time of President Woodrow Wilson has been in favor of proceeding as expeditiously as possible with plans to construct a seaway for oceangoing vessels from the Great Lakes to the Atlantic.

4. President Coolidge and President Hoover were particularly active in promoting the cause of a seaway. The Republican platform

of 1932 contained the following resolution in support of the St. Lawrence Seaway:

The Republican Party stands committed to the development of the Great Lakes-St. Lawrence Seaway. Under the direction of President Hoover, negotiations of a treaty with Canada for this development are now at a favorable point. Recognizing the inestimable benefits which will accrue to the Nation from placing the ports of the Great Lakes on an ocean base, the party reaffirms allegiance to this great project and pledges its best efforts to secure its early completion.

5. The new administration which took office in 1933 was equally desirous to see the seaway constructed. On July 9, 1932, President Franklin D. Roosevelt, then the nominee of the Democratic Party, telegraphed President Hoover his support of the latter's efforts in behalf of the project:

I am deeply interested in the immediate construction of the deep waterway as well as the development of abundant and cheap power . . . It has already been too long delayed.

6. President Hoover finally succeeded in negotiating a treaty with the Government of Canada regarding the joint development of the seaway and power project, and submitted it to the Senate of the United States in November 1932 for ratification. The Senate of the United States held hearings on the treaty in the course of several months in the winter of 1932-33, and debated the matter extensively from January to March 1934. Although a majority of the Senate voted in favor of this treaty, it failed of ratification, lacking the necessary two-thirds vote.

7. In the course of the hearings held by the Senate Foreign Affairs Committee, official representatives of the governments of 13 States appeared in favor of ratification. A large number of commercial and industrial interests from every part of the United States appeared before the committee in favor of the treaty. The principal opposition came from interests representing internal waterways, railroads, and existing harbors on the Atlantic and Gulf Coasts. Briefly, the argument of those favoring the seaway was that it will aid commercial and industrial prosperity of a large part of continental United States, covering an area between 18 and 22 States, and the interests of producers and consumers in all other parts of the country who may benefit by cheap transportation. The argument of the opponents was mainly that the seaway will hurt the railroads, existing harbors, and waterways. The opposition also maintained that its cost would far exceed its benefits. The fact that in 1934 the country was still in the midst of severe economic depression weighed heavily with some of the congressional opponents.

This brief survey of the history of the St. Lawrence project indicates that the overwhelming weight of opinion, based on evidence gathered during the course of 45 years, has been in favor of proceeding with the construction of the St. Lawrence seaway and power project. The engineers of the United States Army have, in their many studies of the engineering and economic aspects of the project, come to the uniform conclusion that it is feasible and practicable. The Department of Commerce, in two studies, one in 1926 and one in 1933, came to the conclusion that it was to the best interests of the country to undertake the seaway. The Federal Power Commission and the Power Authority of the State of New York have studied the power aspects of the project and have arrived at the conclusion that the interests of industries and consumers in the northeastern area would benefit greatly by the cheap power that would be available with the development of the water power resources of the St. Lawrence River. In this opinion they have had the concurrence of industrial and power interests which have repeatedly attempted to obtain rights to the private development of the water power resources of the river because it would make available very cheap electricity. There have been only two serious studies in opposition to the seaway, one issued in 1928 by the Brookings Institution, and one issued by the Niagara Frontier Planning Board, prepared in the spring of 1940. These studies will be examined exhaustively in other reports of the St. Lawrence Survey.

In 1938 negotiations between Canada and the United States were resumed with the submittal of a draft treaty by the United States as a basis for discussion. By January 1940, substantial agreement had been reached between the American and Canadian committees discussing the matter. Final consummation of the agreement was postponed, however, pending the Canadian national elections in March 1940. Before negotiations could be resumed, the European war situation became extremely aggravated with the eventual collapse, by the middle of June, of Denmark, Norway, Holland, Belgium, and France. This grave international situation gave further impetus to Canada's war effort, and necessitated a peacetime national defense program in the United States unparalleled in its magnitude. Dangerous possibilities of future shortages in power, transportation and shipbuilding facilities in both Canada and the United States became evident. Hence the President, by Executive Order dated October 16, 1940, appointed a St. Lawrence Advisory Committee, and allocated one million dollars to the Army Engineers and the Federal Power Commission to undertake preliminary borings and plans, pending final congress-



**VIII**

**LETTER OF SUBMITTAL**

sional action. In this way it will be possible to gain one full year in the completion of the project once the Congress enacts the necessary legislation.

Very truly yours,

N. R. DANIELIAN, *Director,*  
*St. Lawrence Survey.*

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# HISTORY OF THE ST. LAWRENCE PROJECT

## Section 1

### THE CONCEPTION OF THE ST. LAWRENCE SEAWAY

The North American Continent may be said to consist of three regions: The Atlantic and Pacific Littorals and the vast central plain which lies between them. To this central plain, bordered by the eastern mountain ranges on the one hand and the Rockies on the other, there are only three natural entrances: The comparatively shallow Mississippi River Basin; the Hudson-Mohawk Valley water and land routes; and the St. Lawrence River and the Great Lakes.

The major part of the St. Lawrence River lies within the Canadian borders, and although the waterway was declared open to commerce of the United States in a number of early treaties (notably the Reciprocal Treaty of 1854), the issue was left largely in doubt until the settlement of the boundary line and the determination of rules of navigation were agreed upon in the Treaty of Washington in 1871.

For this reason, early proposals for the construction of a navigable waterway upon the St. Lawrence River originated largely in Canada.<sup>1</sup> They arose following the emergence of a substantial fleet of vessels upon the Great Lakes, and were influenced by factors such as the desire of Canadian farmers to carry their grain to Montreal without transshipment; to reduce the cost of imports; and to gain access by reciprocity to the protected American markets.

Only in the latter half of the century, however, did the pressure of commerce create a substantial demand for a waterway from the Great Lakes to Montreal. At this time the development of the railroads transformed the interior in a few decades from a sparse agricultural and pastoral civilization, self-supporting and cut off from the coastal and southern settlements, to a rapidly expanding industrial area based on the iron and steel industry. The population of Chicago reached 1,099,850 in 1890. Large settlements sprang up in Minnesota, Nebraska, and the Dakotas. The movement of wheat, imported from the East until 1860, began to be heavily reversed.

<sup>1</sup> Such, for example, as the essay of A. Projector entitled, "A Concise View of the Inland Navigation of the Canadian Provinces; the Improvements Already Effected and the Inferences to be Drawn from These Towards Their Full, Practicable Accomplishment and Practical Value," printed at the Welland Canal Intelligence Office, 1832. The author states: "Our burthens can be removed and our prosperity insured only by constructing a ship canal of not less than 8 to 10 feet depth of water, and thus rendering Lake Erie's territories and the ports on the upper Lakes on the same level A Sea Coast."

Traffic on the Great Lakes became widespread, vessels carrying anthracite and bituminous coal North and West and flour, grain, iron ore, copper, and lumber from the interior toward the eastern shores. In the expansion of trade which followed the Civil War, United States exports rose from \$392,772,000 in 1870, to \$835,639,000 in 1880.<sup>2</sup> This development, checked by the depression of the 80's, was resumed between 1890 and 1914.

It was in September 1895 that the International Deep Waterways Association first met at Cleveland to discuss the practicability of the St. Lawrence Seaway. Following this meeting, governmental interest was first aroused in the possibility of constructing a deep waterway from the Great Lakes to the Atlantic Ocean.

## Section 2

### EARLY GOVERNMENTAL INTEREST IN THE ST. LAWRENCE SEAWAY

Following the meeting of the International Deep Waterways Association, a Deep Waterways Commission was appointed that same year by the President of the United States and the Government of the Dominion of Canada. The American action was taken in accordance with a provision incorporated in the Sundry Civil Appropriation Bill. This resolution directed the Commission to report on all the possible waterways which might connect the Great Lakes and the Atlantic Ocean.<sup>3</sup>

#### The Report of the Deep Waterways Commission.

The report of the Deep Waterways Commission of the United States<sup>4</sup> was submitted to the President on January 8, 1897. This report was based in part on hearings held at Detroit, and in part on surveys made by the Army engineers. It concluded that both the St. Lawrence and the Oswego-Oneida-Mohawk Canals were feasible, and that the completion of the one or the other system, as quickly as it could be technically planned and economically executed, was fully justified. It added that the first step might well be to deepen the channels between the Lakes themselves. It recommended that further surveys be made to determine which of the two routes was preferable, and that additional information be obtained concerning the flow and the levels of the Great Lakes.

#### The Report of the Board of Engineers on Deep Waterways.

In accordance with the recommendations of the Deep Waterways Commission, Congress appropriated in the fiscal years 1897, 1898, and 1899, a sum of \$483,000 to finance the investigations of the

<sup>2</sup> *Statistical Abstract of the United States*, table 538, p. 466.

<sup>3</sup> U. S. Public Doc. No. 122, 53d Cong., 2d sess.

<sup>4</sup> H. Doc. No. 192, 54th Cong., 2d sess.

Board of Engineers on Deep Waterways established by the Secretary of War. On June 30, 1900, the Board submitted to the Secretary of War its report of more than 1,000 pages.<sup>5</sup> It dealt in turn with the level of Lake Erie in relation to the Niagara Ship Canal; the proposed Oswego-Oneida-Mohawk route; and the St. Lawrence-Lake Champlain route. The Board made an exhaustive survey of the relative merits of the two routes it proposed and also of the probable traffic which might be carried over them. It recommended an all-American waterway of 21 feet depth. The report did not consider the St. Lawrence Waterway to Montreal and the additional problems in the Soulanges and Lachine sections of the river involved in the St. Lawrence Waterway, nor did it consider control works to regulate the level of Lake Ontario, such as are at present contemplated.

#### **The Report of Major T. W. Symons.**

A further report was made at this time by Major T. W. Symons of the United States Army on the cost of a canal entirely within the borders of the United States.<sup>6</sup> As long as boundary questions with Canada and the respective rights of the two countries upon international waters still remained unsettled, an all-American waterway was uppermost in the minds of American legislators and the supporters of a deep waterway.

#### **The International Waterways Commission.**

In 1902 Congress requested the President to invite the Government of Great Britain to join in the formation of an International Waterways Commission, to be composed of three members each from Canada and the United States. This Commission was established as the International Waterways Commission in December 1903.

The Commission was designed for the broad purpose of reporting upon the use and protection of the Great Lakes. Its principal contribution was to pave the way for the Treaty of 1909 between Great Britain and the United States, which settled the outstanding boundary disputes between the two countries. By this treaty also an International Joint Commission was established with considerably more power than had been given to the International Waterways Commission.

On February 24, 1914, the United States Government addressed a note to the British Ambassador—since Canada at that time had not yet established a legation in Washington—inquiring as to the views of the Canadian Government with regard to the advisability of requesting the International Joint Commission to report upon the feasibility of undertaking a joint program with Canada for the construction of a deep waterway for oceangoing vessels. Due to the Great War, however, no further action was taken in the matter.

<sup>5</sup> H. Doc. No. 149, 56th Cong., 2d sess.

<sup>6</sup> Report of the Chief of Engineers, Annual Report of the War Department, for fiscal year ending June 30, 1897, p. 3123 et seq. of pt. 4.

## Section 3

POST-WAR DEVELOPMENTS INFLUENCING THE ST. LAWRENCE  
PROJECT

Between 1914 and 1920 a number of factors greatly strengthened the movement to construct a deep waterway through the St. Lawrence River. Of these, the following are perhaps the most important:

**Emergence of New Industries in the Middle West.**

By 1890 the railroads and the iron and steel industry, combined with a steady tide of immigration, established the Middle West as an industrial center. Between 1900 and 1920 a number of industries emerged, based upon the resources of this area. Of these, the most important were the automobile industry and the secondary industries which it brought with it, such as the manufacture of rubber tires. The war made the United States the granary of the world, and agricultural exports had a very important place in the economy of the Middle West. These developments made the need for cheap transportation doubly felt.

**The Panama Canal.**

The Panama Canal was opened to commercial traffic on August 14, 1914. It seriously weakened the competitive position of the Middle West. Its effect was to bring closer, economically speaking, the Pacific, and the Gulf and Atlantic seaboard, and to diminish the economic advantages, in terms of transportation costs, of the Middle West in relation to both seaboard.

By the end of the war, both ocean and rail freight rates had risen in the general inflationary movement of prices. After the conclusion of the Armistice, there was a brief boom in shipping. But the release of ships that had been interned or incapacitated in the war, combined with the depression of 1920-21, created a surplus of shipping. Consequently, shipping rates collapsed and remained for some years under pre-war levels. Rail rates, however, did not recede in the same degree.

This development greatly exaggerated the normal differential between ocean and rail costs, with the result that, while the Atlantic and Pacific Littorals were brought far closer together by the Panama Canal, the Middle Western States at the same time were further removed, in terms of cost, from San Francisco and New York than in 1914. The result was the erection of an economic barrier around the

midcontinental area which tended to impede commerce.<sup>7</sup> Since the last World War the movement to construct the St. Lawrence Waterway has been interpreted in part by many authorities as a move on the part of the interior to restore its economic parity with the Atlantic and Pacific Littorals.

#### Congestion of Rail Transportation.

The difficulties in the interior as compared to the eastern and western littorals were increased in the post-war period by the partial break-down of the railways during the war. In this time the tremendous expansion of tonnage moved, together with the special problems created by the war, proved too great for the railways to handle with efficiency. Much of the testimony before the International Joint Commission during 1920 and 1921 indicated that the railway facilities at that time proved inadequate. Since a great part of the advantages of the mass production methods developed in the middle western area depended upon cheap and efficient transportation, the need for an alternative method of transportation to relieve the congestion upon the railroads was doubly great.

#### Increase in Foreign Trade.

The Great War affected radically the economic position of the United States relative to the rest of the world. Even prior to the war the United States had long enjoyed a favorable balance of trade. This tendency was accelerated as a result of the war, as shown in the following tabulation: <sup>8</sup>

Average of years	Exports (thousands of dollars)	Imports (thousands of dollars)
1891-95.....	876, 326	785, 137
1896-1900.....	1, 136, 039	741, 519
1901-05.....	1, 427, 020	972, 162
1906-10.....	1, 750, 980	1, 344, 838
1911-15.....	2, 331, 648	1, 712, 319
1916-20.....	6, 416, 513	3, 358, 354
1921-25.....	4, 310, 221	3, 450, 103

<sup>7</sup> See Leslie Thomson, M. E. I. C., *The St. Lawrence Problem*, 1929. In 1923 the total tonnage of cargo moved through the Panama Canal was 19,567,875, of which 8,068,553 was intercoastal. By 1926 the total had increased to 26,037,448, of which 10,069,604 was intercoastal.

Also, the speech of the Honorable Herbert Hoover, Chicago, March, 1926. He stated: "The Panama Canal has drawn the Atlantic and Pacific seaboard and their back country economically much closer together. We can roughly visualize this if we set up a new measuring unit in the shape of the number of cents which it takes to carry a ton of staple goods at present rates. Using that measuring rod and taking in every case the cheapest route, we find that before the war New York was 1,904 cents away from San Francisco, while now it is only 1,680 cents away. But Chicago, which was 2,610 cents away from the Pacific Coast before the war, is today 2,946 cents away. In other words, Chicago has moved 336 cents away from the Pacific Coast, while New York has moved 224 cents closer to the Pacific Coast. A similar calculation will show that in the same period, as ocean rates remained about the same, Chicago was moved 694 cents away from markets of the Atlantic seaboard and South America."

<sup>8</sup> Compiled from *The Statistical Abstract of the United States*, 1939, table 535, p. 463. These figures are not corrected for changes in the value of currency.

It is clear from the foregoing figures that the total imports and exports of the United States reached a much higher level than ever before experienced. This was in part a reflection of the fact that the United States, as a result of the war, became a capital-lending country, whereas formerly it had been principally a borrower of foreign capital. An examination of the development of export trade during the war and post-war years in greater detail indicates that many of the products in greatest demand abroad were produced in the tributary area of the Great Lakes; hence they would be particularly benefited by the construction of the St. Lawrence Seaway. Meat products, animal fats and oils, grains and flour, coal and coke, iron and steel, machinery and automobiles were all in the ascendancy as principal export commodities. These developments in American export trade naturally increased the demand for cheap transportation.

#### **Power Requirements.**

From 1900 on, electric power became a significant factor in the proposed St. Lawrence development. Since any waterway would require the construction of dams to provide headwaters, the opportunity of using these dams for hydroelectric generation clearly increased the profitability of the waterway. This development both increased support of the St. Lawrence Waterway and tended to increase its relative advantages over other possible water routes to the seaboard. At the same time, applications began to be made for private exploitation of Niagara and St. Lawrence power, and demanded considerable attention on the part of the International Joint Commission.

Despite actions by the New York State Legislature and the Court of Appeals of the State of New York unfavorable to the private exploitation of St. Lawrence power, the necessities of wartime production of aluminum resulted in the authorization in 1918 by the International Joint Commission of the construction of a weir at the International Rapids, near Massena, N. Y., and of additional works at Niagara Falls, for diversion of water by private corporations for power generation.

After the war, the growing movement for publicly owned hydroelectric power in Ontario and New York prevented further private exploitation and created new support for the joint construction of the St. Lawrence Seaway. At the same time, important power interests in Quebec and New York State created substantial opposition to the seaway.

#### **Improvements Made in the Great Lakes-St. Lawrence System.**

Another factor in increasing the pressure for the construction of the seaway was the improvements made upon the Great Lakes-St. Lawrence Waterway System between 1900 and 1920. In this time



the United States and Canada together spent more than \$50,000,000 in deepening the channels between Lake Superior and Lake Erie. In addition, Canada spent \$90,000,000 in constructing the 14-foot canals in the Soulanges and Lachine sections of the St. Lawrence.<sup>9</sup>

By this time, connecting channels had been provided in the St. Marys River between Lake Superior and Lake Huron; in the St. Clair River between Lake Huron and Lake St. Clair; in the Detroit River between Lake St. Clair and Lake Erie; and around the Niagara River between Lake Erie and Lake Ontario. On the St. Lawrence River, 14-foot canals had been built at four points in the International Section, as well as in the Canadian sections of the river to Montreal. Consequently, the seaway project was brought closer to realization, since at many points it required only the deepening and widening of existing facilities.

All these developments created in 1919 a widespread movement in Canada and the United States to improve the St. Lawrence Seaway to admit oceangoing vessels. In the immediate post-war years, organizations were established in Canada and the United States to further the seaway project, and the greatly increased interest of the legislatures of both countries in the development was reflected in the number of resolutions instructing their respective governments to undertake negotiations. At the same time, new problems created by the war resulted in new difficulties as far as the project was concerned.

#### Section 4

#### POST WAR INTEREST IN THE SEAWAY PROJECT—1919—29

Between 1919 and 1929 a great deal of interest was shown in the seaway project by private concerns. This interest was expressed both in the formation of organizations to further the project and in the applications of private groups to exploit the power and navigation aspects of the St. Lawrence. The concern of these private organizations in the St. Lawrence seaway and power project forms a vital part of the history of the development of this project after the war.

#### Organizations Formed To Further the St. Lawrence Seaway Project.

The interest of private manufacturers in the area tributary to the Great Lakes in the St. Lawrence Seaway project increased greatly after the war. In 1919 two organizations were formed to further this project: The Canadian Deep Waterways and Power Association, in the Dominion of Canada, and the Great Lakes-St. Lawrence Tidewater Association, in the United States. The formation of the Great Lakes-St. Lawrence Tidewater Association originated in the

<sup>9</sup> George Washington Stephens, *The St. Lawrence Waterway Project*, Louis Carrier & Co., Montreal, 1929. 274442-41—3

call issued by Mr. Charles P. Craig to the governors of States in the tributary area to send delegates to an organization meeting in Washington on February 4, 1919. At this meeting six States were represented. The Association was formally created and Mr. Craig was named executive director. The Association immediately initiated, through Senator Kellogg and Senator Lenroot, the amendment to the Rivers and Harbors Bill, providing for the investigation by the International Joint Commission of further improvements of the St. Lawrence River to make it navigable for oceangoing vessels, together with the cost of such improvements.<sup>10</sup> An engineering board was created by the two governments in 1920 to study this project.<sup>11</sup>

During the hearings before the International Joint Commission in 1921, the Association, then representing 15 States, arranged for the appearances of qualified witnesses. Forty-four hearings were held in 16 States of the United States and in 5 provinces of Canada. The Association served as a source of information concerning the seaway project to all member States and organizations in the United States and published, between 1922 and 1932, many books, bulletins, and pamphlets, in addition to a weekly information sheet.

In 1925, under the auspices of the Great Lakes-St. Lawrence Tidewater Association, the earliest comprehensive survey of the St. Lawrence Seaway project was written by Mr. Alfred H. Ritter, a transportation and port specialist commissioned by the Association.<sup>12</sup> This report was notable particularly for its analysis of the effects of the seaway on the industry of the Great Lakes-St. Lawrence tributary area, which was defined as the area bounded by a boundary line which equalized transportation costs by means of the railways and the seaway. All points within that area would show a saving in transportation costs via the seaway. This conception provided the first effective means of determining the traffic that might be expected to move by the seaway and the benefits which it would yield. This method of approach in economic analysis has since dominated much of the discussion concerning the economic effects of the seaway project.

By 1932 there were 21 States associated with the Great Lakes-St. Lawrence Tidewater Association, either by legislative act or by Executive order, or both. The Association had but one objective—opening the ports on the Great Lakes to ocean shipping, for the unin-

<sup>10</sup> Sec. 9, Rivers and Harbors Act of March 3, 1919.

<sup>11</sup> For discussion of the report of this Board, see below p. 12.

<sup>12</sup> Mr. Ritter at the time was chief statistician to the Board of Engineers for Rivers and Harbors of the War Department.

errupted movement of commerce. It was financed by appropriations provided by the legislatures of member States.<sup>13</sup>

On the Canadian side, too, interest was alive. In January 1920, the Canadian Deep Waterways and Power Association held its first convention in Winnipeg. This convention was followed in December by the annual meeting of the Association, at which resolutions were passed calling upon the Dominion Government to accelerate the Welland Canal improvements, and endorsing a scheme for deepening the St. Lawrence River at the earliest possible moment. Like the Great Lakes-St. Lawrence Tidewater Association, it distributed bulletins, extolling the outstanding advantages of the seaway, and pressed for action in opening negotiations for a treaty.

#### **Private Proposals to Develop Navigation and Power Projects Upon the St. Lawrence River.**

A number of acts passed by the New York State Legislature between 1893 and 1896 granted leases for the purpose of developing power on the Niagara River. By 1907 the problem of diversion had become so serious that Governor Charles Evans Hughes of New York called for the formation of a definite policy of conservation of water resources. In his message to the State legislature, he said that the water power of New York State "should not be surrendered to private interests but should be preserved and held for the benefit of the people."

Applications for diversion of water and the construction of dams at the Niagara and St. Lawrence Rivers were inspired largely by the rapidly growing Aluminum Co. of America. In 1902 it was largely responsible for the organization of the St. Lawrence River Power Co., which acquired the rights and property of the St. Lawrence Power Co., a company which, under the laws of 1896, was empowered to construct the Massena Power Canal. This was constructed without compensation to the State for the diversion of the water, and from it 90,000 horsepower is still developed at Massena.

In 1906 an application was made by the Massena Water Power Co. to dam the south channel of the St. Lawrence River at Long Sault Island. The British Ambassador, however, expressed objection to the granting of this application.

In 1907 the Long Sault Development Co. was incorporated as a subsidiary of the Aluminum Co. of America. Under the terms of its incorporation it was granted the right by the New York State Legislature to build a dam and to construct works upon the St. Lawrence River. The company proceeded to acquire title to considerable

<sup>13</sup> California, Colorado, Idaho, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, Oregon, South Carolina, South Dakota, Utah, Washington, West Virginia, Wisconsin, and Wyoming.

island and shore property on the St. Lawrence River, and made engineering plans for the development of hydroelectric power near Barnhart Island. It claimed, together with its Canadian subsidiary, the St. Lawrence Power Co., the exclusive right to construct works upon the St. Lawrence River in the International Rapids Section.

In 1913, however, the act of 1907 which granted permission to construct works upon the St. Lawrence River to the Long Sault Development Co. was repealed by the New York State Legislature. This was followed in 1916 by a decision of the Court of Appeals of New York State, which held that the State could not properly surrender rights which it held in trust for the people. It concluded that the act of 1907 under which the Long Sault Development Co. was incorporated was unconstitutional and void.<sup>14</sup>

During the war, however, the necessity of obtaining adequate power supplies to serve the vital aluminum industry of New York brought the question of the hydroelectric development of the Niagara and St. Lawrence Rivers into new prominence. In 1918 an agreement was secured by the War Department for the consolidation of the two power companies at Niagara Falls, in order that the conflicting plans for the right to divert water available for power production might be harmonized. Even before this consolidation had been completed, the Acting Secretary of War urged the immediate ordering of a third unit of 30,000 horsepower to be installed in the power station then under construction at Niagara Falls, stating that "this work is of vital and immediate importance to war industry." At the same time the Aluminum Co. of America, in June 1918, sought authorization from the War Department and the International Joint Commission to build a submerged weir on the St. Lawrence River to increase the supply of power to its plant at Massena. In September 1918, the International Joint Commission approved construction of the weir.

In 1921, on the advice of Governor Miller, the New York Water Power Commission was created by act of the State Legislature and empowered to issue 50-year licenses for the private development of the State-owned power sites. Within a short time, 22 applications were made. Of these, the most significant were those of the St. Lawrence Transmission Co. (a subsidiary of the Aluminum Co. of America) and the St. Lawrence Power Co. (a subsidiary of General Electric Co. and E. I. du Pont de Nemours & Co., Inc.). In 1921 these two companies joined to form the Frontier Corporation, in which the Aluminum Co. of America held a major share of the capital.

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<sup>14</sup> 212 N. Y. 1.

During the period 1920-26, detailed plans were prepared on behalf of one or both of these companies for the improvement of power and navigation upon the entire St. Lawrence River.

In 1920 a report was submitted to the International Joint Commission by Hugh L. Cooper & Co., entitled "Navigation and Power in the St. Lawrence River." The estimated cost of the entire improvement, from Lake Ontario to Montreal, was stated to be \$1,450,000,000. This report, however, was submitted at a time when no accurate estimates of cost were possible. Furthermore, the report contemplated the construction of five dams capable of developing in all 6,625,000 horsepower, more than three times as much as proposed by any previous projects. The Cooper firm offered, on behalf of the interests it represented, to invest \$1,300,000,000 in exchange for the power rights, making a gift to the two Governments of that part of the cost of navigation which would be joint with power development. The users of electricity would have had to meet this part of the cost of navigation.

In 1926 another report was filed with the New York State Power Commission by Colonel Cooper of the same firm in connection with an application on behalf of the Frontier Corporation. This plan contemplated the construction of canals and locks to provide navigation facilities, and estimated the capital cost for developing 2,400,000 horsepower to be \$237,151,603, or \$98.81 per horsepower of installed capacity. These estimates comprised all costs, including the purchase of land, and did not materially differ from current estimates made by officials of the United States and Canadian Governments.

At the same time application was made to the New York State Water Power Commission on behalf of the American Superpower Corporation for a two-stage project in the vicinity of Long Sault Island. The Commission stated that it was ready to grant permits for construction of the dams to the Frontier Corporation. Opposition from the Governor of New York, Alfred E. Smith, caused a delay in the Commission's action, however, and following the reelection of the Governor in 1926 the applications were withdrawn.

In 1929 the capital of the Frontier Corporation was acquired by the newly formed Niagara Hudson Power Corporation. This corporation, in which the Aluminum Co. of America retained control, acquired all private claims to Niagara River power resources and those upon the International Section of the St. Lawrence River. Its subsidiary, the Frontier Corporation, continued to purchase substantial tracts of land, including an additional part of Barnhart Island and the whole of Crysler Island.

In the Canadian section of the river, in 1929 a syndicate in which the Aluminum Co. of America was represented undertook the development of the Soulanges Rapids section of the St. Lawrence.

## Section 5

### POST-WAR PROPOSALS AND NEGOTIATIONS CONCERNING THE ST. LAWRENCE SEAWAY

#### Negotiations Between 1919 and 1923.

The first period of post-war negotiations between Canada and the United States concerning the St. Lawrence Seaway was begun shortly after the Armistice. Two major reports were prepared and submitted during the years immediately following the first World War.

*The Wooten-Bowden Report.*<sup>15</sup>—By section 9 of the Rivers and Harbors Act of March 12, 1919, Congress expressed a desire that the International Joint Commission should report upon the improvements necessary to make the St. Lawrence navigable to oceangoing vessels, and upon the cost of such improvements. On January 21, 1920, the Governments of Canada and the United States referred the matter to the International Joint Commission.

In addition, the two Governments authorized the appointment of two engineers to prepare plans for and estimates of the cost of the proposed improvements, to supplement the data gathered by the International Joint Commission. Their report was to be submitted to the International Joint Commission for incorporation in its general report, within a year of the date of the appointment.

Accordingly, each of the two Governments designated an engineer and placed competent staffs at their disposal. On June 24, 1921, the two engineers, Mr. W. A. Bowden, representing Canada, and Lt. Col. W. P. Wooten, representing the United States, submitted their report to the International Joint Commission. This report became known as the Wooten-Bowden Report.

The instructions given by the two Governments to the International Joint Commission were that its report should be centered upon the St. Lawrence Seaway alone, and included in the terms of reference were the best methods of apportioning capital cost and maintenance charges of the seaway, its effect upon the commerce and industry of each country, the most desirable methods of control, the probable flow of traffic over the seaway, and the combination of water and power interests which would obtain the greatest beneficial use of the waters of the river. Broadly, the instructions given by the International Joint Commission to Colonel Wooten and Mr. Bowden followed the technical aspects of those given by the two Governments to the Commission itself.

<sup>15</sup> S. Doc. No. 179, 67th Cong., 2d sess.

In their report, the two engineers submitted findings favorable to the deepening of the waterway between Lake Ontario and Montreal. They suggested a plan which involved the building of 9 locks, 33 miles of canal of 25-foot depth, and the development of 1,464,000 horsepower of hydroelectric energy, at a total cost of \$252,728,800.

In the International Rapids Section, a combination of dams and side canals with locks at Barnhart Island was proposed, similar to the plans currently approved by the United States and Canadian engineers. It was asserted that the revenue from power generated would be sufficient to pay for the entire project within a few years.

*Report of the International Joint Commission.*—Acting under the joint instructions of the United States and Canadian Governments, the International Joint Commission submitted its own report. In 1920 the Commission held 44 hearings in 16 States of the United States and in 5 provinces in Canada. These hearings extended from Boise and Calgary in the West to Boston, New York and Montreal in the East. More than 300 witnesses testified during these hearings, including the official representatives of 14 States, who testified favorably to the project.<sup>16</sup> Only New York State, under Governor Miller, officially opposed the project.

On December 19, 1921, the International Joint Commission reported unanimously on its investigation.<sup>17</sup> Its main conclusions were as follows:

- a. Of the various routes from the interior to the seaboard, the St. Lawrence was the most desirable.
- b. The existing inbound and outbound trade of the area tributary to the Great Lakes justified, on reasonable assumptions, the expense involved in constructing the St. Lawrence Seaway.
- c. Because of the larger population served, the benefits derived from the seaway would accrue at first in much larger measure to American than to Canadian interests.

The principal recommendations of the Commission were as follows:

- a. That the Governments of the United States and Canada enter into an arrangement by way of a treaty for a scheme of improvement of the St. Lawrence River between Montreal and Lake Ontario.
- b. That the New Welland Ship Canal be treated as a part of that scheme.
- c. That a larger board of engineers be established to give final judgment upon the improvements to be made in the St. Lawrence River.
- d. That the cost of all navigation work be apportioned between the two countries on the basis of the benefits each would receive from the waterway.

<sup>16</sup> The 14 States were: Ohio, Illinois, Indiana, Wisconsin, Michigan, Iowa, Minnesota, North and South Dakota, Colorado, Montana, Nebraska, Wyoming, and Idaho.

<sup>17</sup> S. Doc. No. 114, 67th Cong., 2d sess.

- e. That the cost of navigation works for the combined use of navigation and power, over and above the cost of works necessary for navigation alone, be apportioned equally between the two countries.

Throughout 1922 widespread discussion took place upon the report of the International Joint Commission. In the United States, the report was sent to Congress by President Harding, who stated in a strongly favorable message that "the feasibility of the project is unquestioned and its cost, compared with some other great engineering works, would be small." The Senate and the House proceeded to debate the recommendations contained in the report.

Subsequently the report of the International Joint Commission was referred to a Congressional committee. A majority of the committee advised that the United States Government should proceed to negotiate a treaty with Canada.<sup>18</sup> Accordingly, on May 17, 1922, the Secretary of State, Charles Evans Hughes, inquired whether the Canadian Government would be willing to begin negotiations with a view to concluding a treaty.

By a note dated June 3, 1922, the State Department was informed that the Canadian Government had not had an opportunity to give the report of the International Joint Commission and the accompanying report of the Board of Engineers that careful consideration which their importance merited; that moreover, considering the magnitude of the project and the expenditure involved, the Canadian Government was of the opinion that it was not expedient to deal with the matter at that time.

In the provinces, the Ontario Legislature unanimously passed a resolution affirming its general belief in the project but refrained from calling for specific action upon it. The Premier of Quebec, the Honorable L. H. Taschereau, opposed the project.

#### **Negotiations Between 1923 and 1932.**

Despite the failure of the negotiations concerning the seaway to reach a successful conclusion, the issue was kept alive in 1923 by the United States Government. In a message to Congress in December, President Coolidge stated that "efforts are being made to secure the necessary treaty with Canada." He added that "these projects cannot all be undertaken at once, but all should have the immediate consideration of Congress and be adopted as fast as plans can be matured and necessary funds become available. This is not incompatible with economy, for their nature does not require so much a public expenditure as a capital investment which will be reproductive, as evidenced by the marked increase in revenue from the Panama Canal."

<sup>18</sup> U. S. Res. No. 215, 67th Cong., 2d sess.



In April and May 1924, the Governments of the United States and Canada enlarged the membership of the Joint Board of Engineers to six, three representatives from each country. In accordance with the recommendations of the International Joint Commission, the new Board was instructed to review all previous engineering studies and to present a report on the entire project by May 1926.<sup>19</sup>

At the same time, the United States Government established the St. Lawrence Commission of the United States, a national committee of nine members appointed by the President. The chairman of this committee was the then Secretary of Commerce, the Honorable Herbert Hoover. The secretary was Mr. Charles P. Craig, executive director and vice president at large of the Great Lakes-St. Lawrence Tidewater Association. At the same time, the Canadian Government appointed a Canadian Advisory Commission, with Rt. Hon. George P. Graham as its chairman.

*Report of the Joint Board of Engineers.*<sup>20</sup>—On November 16, 1926, the report of the Joint Board of Engineers was presented to Ottawa and to Washington. This report confirmed the feasibility of the seaway, and estimated the total cost of the improvements at from \$625,000,000 to \$650,000,000 for a 25-foot channel and fully developed power resources.

The members of the Board differed, however, upon the question of power development. The United States engineers favored the single-stage development in the International Rapids Section, with a dam at Barnhart Island, as recommended in previous reports. The Canadian engineers recommended a two-stage development, with dams near Morrisburg and Cornwall. As against the lower cost of the single-stage project, it was argued that the two-stage development would be in a position to generate power 3 years before the Barnhart Island project. In 1927 the Joint Board of Engineers added a number of important appendices to its report, indicating the alternatives involved in the power development.

*Report of the St. Lawrence Commission of the United States.*<sup>21</sup>—On December 27, 1926, the St. Lawrence Commission submitted an exhaustive report on the whole question of water transport from the interior to the seaboard. It concluded that:

- a. The construction of a shipway from the Great Lakes to the sea was imperative.
- b. The St. Lawrence route was preferable.

<sup>19</sup> In order not to confuse the work of this Board with that of the International Joint Commission, it must be remembered that the Board's report was designed to be purely a corollary to the Commission's report, and that the Commission had a distinct purpose as the only permanent tribunal to which matters concerning international waters could be referred.

<sup>20</sup> S. Doc. No. 153, 69th Cong., 2d sess.

<sup>21</sup> Ibid.

- c. The development of power resources of the St. Lawrence should be undertaken by appropriate agencies.
- d. Negotiations should be entered into with Canada in an endeavor to arrive at an agreement upon these subjects, and in these negotiations the United States should recognize the proper relations of New York to power development in the International Section.

*Report of the Department of Commerce.*<sup>22</sup>—In January 1927, a further report dealing with the St. Lawrence Seaway was issued by the United States Department of Commerce. It recommended a waterway of 27-foot depth, instead of the 25-foot canal recommended by the Joint Board of Engineers, and it predicted that, given this waterway, there would be an estimated saving of from 5.8 cents to 9 cents a bushel on the grain shipped to Liverpool at the then current rate of 17 cents.

The most important point developed by the Department of Commerce was that from 19 to 24 million long tons of foreign and domestic commerce were available for movement via the Great Lakes-St. Lawrence Waterway.

On April 13, 1927, the United States, through the Secretary of State, Frank B. Kellogg, addressed a note to the Canadian Minister in Washington. The note stated that the advantage of opening the waterway to ocean shipping, together with increase in railway rates and the efficiency of generation and transmission of hydroelectric power, had increased the importance and practicability of early development, and added that the United States Government was prepared to enter into negotiations with a view to a joint undertaking of the project.

The Prime Minister of Canada, William L. Mackenzie King, replied on July 12, 1927, that upon receipt of the report of the International Advisory Committee concerning the various proposals of the Joint Engineering Board and upon consideration of the other factors involved, the Government of Canada would have pleasure in discussing further with the United States Government the proposals advanced by the Secretary of State.

On July 13, 1927, the Joint Board of Engineers submitted a third plan for power development on the St. Lawrence River, as one of the appendices to its report. This plan held to the two-stage development but placed the upper dam at Chrysler Island instead of Ogden Island. It was hoped by this alternative that a possible deadlock between the Canadian and American engineers might be avoided. This third proposal, in fact, dominated later discussions of a seaway project.

<sup>22</sup> *Great Lakes-to-Ocean Waterways, Domestic Commerce Series No. 4.*

During the remainder of the year no further proposals were made. The St. Lawrence project remained, however, a source of considerable debate in Canada and the United States.

*Report of the National Advisory Committee.*<sup>23</sup>—On January 11, 1928, the Canadian National Advisory Committee made its report to the Prime Minister of Canada. A week later two members of the Committee added a minority report. These two reports agreed on the main principles and recommended a continuation of negotiations. Both reports outlined possible bases for division of cost between the United States and Canada.

The Committee report confirmed the findings of the Joint Board of Engineers that the project was feasible, but proposed a channel of initial depth of 27 feet. It expressed the view that the initial development should take place in the sections of the river lying within the Province of Quebec. In the international section, the Committee recommended that no action be taken at present—owing to Canada's heavy financial commitments as a result of the war—if Canada were expected to assume responsibility for half the new financial obligations involved.

The Committee included in its report a financial statement which purported to show that Canada would be paying \$400,830,000 as against a possible \$383,183,000 for the United States. The Committee concluded that "it would not be unreasonable to expect the United States to undertake the entire work, both for navigation and power in the International Section." In addition, it recommended that the Welland Canal should retain its purely Canadian character, and that Quebec should provide the power requirements of Ontario until Ontario might absorb the capacity of future developments in the International Rapids Section.

The report of the National Advisory Committee served as the basis for a note from the Canadian Minister to the United States Government on January 31, 1928. The note reviewed the general situation concerning the seaway project. It advanced the conclusions of the report as concurred in by the Canadian Government, and suggested that the improvement of the International Rapids Section might be delayed to give further consideration to engineering proposals and to allow time for the reasonable absorption of the power developed on the Canadian side.

In reply, the United States Secretary of State stated that the United States Government was inclined to regard as an acceptable basis of negotiation the proposals suggested in the Canadian note. The Secretary of State took exception, however, to the proposal to

<sup>23</sup> *St. Lawrence Waterway Project*, a White Paper of the Canadian Government, published by Printer to the King's Most Excellent Majesty, Ottawa, 1928.

delay construction of the works in the International Rapids Section, and also to the balance sheet prepared by the National Advisory Committee. He objected specifically to the inclusion in this balance sheet of the cost of the St. Lawrence and the old Welland Canals, except in so far as they might be of use in the proposed seaway. He closed by accepting the Canadian proposal to include in the negotiations all outstanding problems affecting the Great Lakes and the St. Lawrence.

On April 5, 1928, a note from the Canadian Legation to the United States Department of State commented upon the reply of the Secretary of State. It reemphasized the Canadian insistence that the development of power on the Canadian side should not outrun the capacity of the Canadian market, and called attention to the necessity of reconciling the divergence of opinion between the Joint Board of Engineers as a preliminary to any computation of costs. It informed the United States Government that the Canadian Government was proceeding to consult with the Governments of Ontario and Quebec upon the aspects of the project with which they may be concerned, and that, following such consultations, the Canadian Government would be in a position to communicate further with the United States.

The United States Secretary of State replied that he concurred in the suggestion that any engineering problems might be reconsidered, but that in the belief of the Secretary of State negotiations might proceed at the same time. Opposition to negotiations, however, were strongly voiced by the Prime Ministers of Quebec and Ontario. At this time a legal dispute arose as to whether the water power of the St. Lawrence River was the property of the Dominion of Canada or of the provinces concerned. The judgment of the Supreme Court of Canada upon this issue was handed down in February 1929, and was inconclusive.

On February 8, 1929, Secretary of State Kellogg stated at a press conference that this Government had been carrying on negotiations with Canada in an effort to arrive at a treaty in regard to the St. Lawrence Waterway, and added that a question had arisen in Canada as to whether the Federal Government or the Provincial Government has the right to control power generated from Canadian waters. While the question does not concern us, the Secretary said, Canada apparently desired to have it settled before negotiating a treaty and the matter had therefore been submitted to the Canadian courts for decision.

In the press of both countries the question of the St. Lawrence project was fully debated at this time. A change of government at Ottawa, however, postponed the issue of the seaway development until after the general election in July 1930. At this time, the accession to power of the administration of the Honorable R. B. Bennett reopened

the issue of the St. Lawrence Seaway. In January 1931, the Prime Minister of Canada visited Washington to discuss the St. Lawrence Seaway project informally with President Hoover.

At the same time the Joint Board of Engineers was reconvened to study the improvement of the International Section of the St. Lawrence River. The Board agreed on the two-stage development of the International Rapids Section, with a dam at Chrysler Island. It revised its estimate of the cost of the entire seaway from the Great Lakes to Montreal and concluded that it would be \$543,429,000. Of this, \$272,453,000 was to be paid by the United States and \$270,976,000 by Canada.

The report of the Joint Board of Engineers prepared the way for the opening of negotiations. Following the arrival of the new Canadian Minister in June 1931, treaty negotiations were opened with the Department of State. These negotiations were carried on continuously until July 18, 1932, when a treaty was signed by representatives of the two countries.

## Section 6

### THE GREAT LAKES-ST. LAWRENCE DEEP WATERWAY TREATY

The United States and Canada signed a treaty on July 18, 1932, to realize the benefits which a waterway of 27-foot depth for navigation through the Great Lakes and the St. Lawrence River to the sea would bring to each country.

A two-dam system was agreed upon, Canada to construct, operate, and maintain works in the Thousand Islands Section, and a side canal with a lock opposite Chrysler Island; the United States to construct, operate, and maintain other works in the Thousand Islands Section and a side canal with locks opposite Barnhart Island.

A St. Lawrence International Rapids Commission to consist of 10 members, 5 from each country, was to be established. It would be charged with supervision over the construction of the works in the International Rapids Section, as described in the final report of the Joint Board of Engineers (reconvened) dated April 9, 1932. The works in Canada were to be built by Canadians with Canadian material, and those in the United States by Americans with American material. This Commission was to be controlled by the terms of the treaty and was not subject to the legislative or the executive authorities of either country. It was to have all powers ancillary to its establishment and functions under the treaty, to enter into contracts, to hire personnel, to arrange for workmen's compensation, to sue and be sued. As in the nature of a corporation, its members were to be free from liability for the Commission's acts. The Federal courts of both countries were to have jurisdiction over the Commission. Its

members were to be paid by their respective Governments, and it was to continue until the works were completed.

The parties agreed that personnel and materials to be employed or purchased by the Commission could freely enter their respective territories within the neighborhood immediately adjacent to the international section. Each assumed the responsibility and expense of acquiring land in its territory to carry out the provisions of the treaty, and released the other from liability for injuries in its territory caused by action taken under the treaty. Upon completion of the works, each party was to operate the works located in its territory, the construction of the works giving neither party any rights in the territory of the other.

Recognizing their common interest in the preservation of the levels of the Great Lakes System, the parties agreed that the diversion through the Chicago Drainage Canal should be reduced to the amount permitted by the decree of the Supreme Court of the United States, of April 21, 1930, any increases to be subject to arbitration. The present depths at Montreal and in the lower St. Lawrence River, and existing navigation rights, were to be maintained, and compensating works to maintain the Lake levels were to be constructed. The amount of water used during any day for power production on either side of the border was not to exceed one-half the daily flow available for that purpose. However, should either country divert additional water into the system, it would be entitled to a like amount for power purposes at any lower point.

The treaty did not limit the parties to the agreed construction, but provided that either could construct alternate canals in their territories and use such water as should be necessary for their operation.

## Section 7

### CONGRESSIONAL HEARINGS ON THE 1932 TREATY

The hearings before the subcommittee of the Senate Committee on Foreign Relations extended from November 14, 1932, to February 10, 1933. During this time, 67 witnesses testified.

#### Testimony in Support of the Treaty.

Principal support for the treaty came from the States tributary to the Great Lakes. Representatives of these States, extending as far west as Wyoming, urged ratification of the treaty on the grounds that the cheaper transportation which the seaway would provide would greatly aid the export trade of this area. They argued further that it would greatly cheapen the imports into this area of raw materials as well as consumers' goods. It would thereby, without damaging the railroads or other existing facilities, restore the Middle

West to a position of economic parity with the areas benefited by the Panama Canal.

On behalf of this viewpoint there appeared before the subcommittee the governors or other representatives of the States of Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, North Dakota, South Dakota, Wyoming, Iowa, Nebraska, Kansas, and Montana. Further evidence was submitted by representatives from the cities of Cleveland, Toledo, Detroit, Monroe, Muskegon, and Duluth. Mayor Hoan, of Milwaukee, president of the Great Lakes Harbors Association, urged ratification on behalf of the majority of the port cities on the Great Lakes. Further support for the treaty from the Middle Western areas was submitted by the American Farm Bureau Federation and the State Farm Bureau Federations of South Dakota, Iowa, Missouri, Kansas, and Nebraska. Throughout the hearings, the Great Lakes-St. Lawrence Tidewater Association, representing 21 States, played a leading role in support of the treaty.

Further important support for the treaty came from New York State. Witnesses from New York State argued principally that the prosperity of the Middle West would greatly benefit the industries and commerce of New York; that the seaway would further benefit the Lake ports of New York; and that the power development would be of inestimable value to their State.

Witnesses from New York included the president of the Northern New York Federation of Chambers of Commerce; the president of the New York State Development Association; the president of the Ogdensburg Chamber of Commerce; the president of the Champlain Valley Council and the Champlain city council; and the chairman and vice chairman and other representatives of the New York Power Authority. Witnesses from New York further included individuals who testified in their private capacities, including Julius H. Barnes, twice president of the United States Chamber of Commerce, who supported the treaty on the basis of his widespread experience.

Support for the treaty was voiced also by witnesses from New England. A statement prepared for the subcommittee by Col. Charles R. Gow, Chairman of the Joint New England Committee on the St. Lawrence waterway project, argued that the seaway would furnish intercoastal transportation between industrial New England and the agricultural Middle West, thereby bringing a market of 45 million people appreciably closer to New England centers of production. Henry I. Harriman, of Boston, also one-time president of the Chamber of Commerce of the United States, testifying in his private capacity, stated the seaway would not injure the railways but would greatly stimulate industry throughout the country. Further testimony on

behalf of the seaway was presented by F. S. Chase, chairman of the Power and Waterways Committee of the Manufacturers Association of Connecticut.

**Testimony in Opposition to the Treaty.**

Opposition to the treaty came from three principal sources: The representatives of interests in the North Atlantic ports; the representatives of railroad interests; and lake carriers and canal interests. Opponents of the treaty argued that the cost of construction would be excessive; that there would be insufficient traffic upon the seaway to warrant any large expenditures; that there would be no appreciable reduction of transportation rates between the interior and the seaboard; and that harm would be done to existing transportation facilities.

On the matter of costs, it was argued that estimates were unreliable and should be revised. On the matter of traffic, it was asserted that coal and iron movements were principally between lake ports and that wheat was a declining export. It was further maintained that railway labor would be displaced and that the American ports would suffer in favor of Montreal. It was suggested that there was no market for the power to be provided by the development and that if this power were sold it would reduce consumption of coal by 40 million tons a year.

The North Atlantic ports were represented by the vice president of the Baltimore Association of Commerce; the president of the Philadelphia Chamber of Commerce; the manager of the Maritime Association of Boston; the chairman of the Albany Port District Commission; and from New York City, the manager of the Merchants Association, the Chamber of Commerce of the State of New York, and the Maritime Association of the Port of New York.

Vociferous opposition in the hearings came from Buffalo, and was expressed by the president and two vice presidents of the Lake Carriers Association, a spokesman for the New York State Barge Canal, and a number of private shippers.

The opposition of the railroads was voiced by the Association of Railway Executives. The Security Owners Association, the Railway Labor Executives Association and the American Short Line Railroad Association followed the lead of railroad executives.

The witnesses for the Association of Railway Executives and the Security Owners Association argued principally that the seaway represented a form of wasteful and subsidized competition to adequate existing facilities. These arguments were repeated by the witness for the Short Line Railway Association, who further dealt with the losses of short-line railroads concerned with the moving of coal to central Canada via the Great Lakes.



The Railway Labor Executives Association was represented by D. B. Robertson, who opposed ratification for several reasons. He asserted, among other things, that the seaway was unnecessary and would contribute toward a break-down of the rail transportation system.

In addition, the seaway was opposed by New Orleans interests, and, in a qualified statement, by the Mississippi Valley Association.

#### The Testimony of Government Witnesses.

A number of Government witnesses testified on behalf of the treaty. General Pillsbury and Colonel Markham, representing the Army Engineers, denied the charges that the estimates of cost were unreliable and maintained that the cost of the project would be within the limit set by them. They asserted that the project was a highly feasible one.

A. H. Haag, the Director of the Bureau of Research in the United States Shipping Board, answered the charge that the seaway was of insufficient depth and asserted that, upon reasonable assumption, 90 percent of the world's cargo ships could use it.

A. Lane Cricher, chief of the Transportation Division of the United States Department of Commerce, testified with reference to the study made by his division in 1927, which analyzed possible traffic movements and freight rates, and concluded that the seaway was fully justified.

The Honorable James G. Rogers, Assistant Secretary of State, described various aspects of the treaty, including the allocation of costs, navigation rights, the maintenance of lake levels, and the rights of the Aluminum Co. of America to private diversion of water.

Additional testimony was presented by individuals and organizations, both for and against the treaty. Hearings upon the treaty before the subcommittee were concluded on February 10, 1933.

## Section 8

### REPORT OF THE SENATE COMMITTEE ON FOREIGN RELATIONS

Following the conclusion of hearings, the report of the subcommittee of the Senate Committee on Foreign Relations was submitted to the full committee on February 15, 1933. On February 21, 1933, the chairman of the Senate committee, Senator Borah, submitted the report to the Senate of the United States, recommending the adoption of the treaty with the following amendment:

*Resolved (two-thirds of the Senators present concurring therein),*  
That the Senate advise and consent to the ratification of the Great Lakes-St. Lawrence Deep Waterway Treaty between the United States and Canada, signed at Washington, July 18,

1932, this advice and consent being subject to and conditioned on the agreements, provisions, and interpretations set forth in an exchange of notes between the United States and Canada, dated January 13, 1933, respecting private diversions of water on the St. Lawrence River.

This amendment, as explained by Senator Walsh of the subcommittee to the Senate committee, was introduced on the grounds that, although nothing in the treaty affirmed the right of private corporations to divert water from the St. Lawrence River, the authorities of the State of New York desired additional assurance, which was subsequently obtained in an exchange of notes between the United States and Canada.

On the matter of power to be generated at the St. Lawrence River, the Senate Committee on Foreign Relations stated that "the State of New York claims to be entitled to one-half of the power developed in that section of the river, and your committee is of the opinion that it should be accorded the same upon the payment of so much of the total cost of the improvement therein as is justly allocable to power development."

The report went on to quote from the hearings upon the treaty. It argued that the enterprise was national in scope, pointing out that Oregon, Washington, and California were all represented in the Great Lakes-St. Lawrence Tidewater Association, and that a report prepared by an authoritative committee in New England favored the seaway project. It added that opposition to the treaty had been voiced from Buffalo and Atlantic ports, including New York City. It pointed out the very considerable expenditures of the Federal Government in improving the ports of New York, Philadelphia, Baltimore, Albany, and Buffalo, and it noted ironically the stress laid by these centers upon the alleged injustice of taxing the people of the whole country for the benefit of a limited portion of the population.

Minority views were submitted by Senator Lewis, of Illinois, and Senator Wagner, of New York, of the subcommittee, opposing ratification.

## Section 9

### REPORT OF INTERDEPARTMENTAL BOARD

Following discussions held in November 1933, the President of the United States appointed the Interdepartmental Board on the Great Lakes-St. Lawrence project to report upon the feasibility and probable benefits of the seaway.

On January 10, 1934, a report was submitted to the President by the chairman of the Board, the Honorable Frank R. McNinch.<sup>24</sup>

<sup>24</sup> S. Doc. No. 116, 73d Cong., 2d sess.

It consisted of four parts, prepared, respectively, by the War Department, the Department of Commerce, the Interdepartmental Board, and the Federal Power Commission in conjunction with the Power Authority of the State of New York.

The total cost of the project to the United States was estimated by the Board to be \$272,453,000, including the development of 1,100,000 horsepower on the United States side of the International Section of the St. Lawrence River. It was estimated that 60 percent of the world's oceangoing tonnage and 70 percent of the world's freight cargo tonnage could utilize the seaway thus constructed.

On the basis of 1929 conditions, it was estimated that the possible tonnage of United States cargo which might move through the seaway was as high as 23,000,000 tons per year. Probable tonnage was estimated at 13,000,000 tons per year.

The savings on this tonnage were estimated on the basis of a number of commodity studies. These commodities were bananas, sugar, coffee, clay, and rubber, in imports; and grain, flour and meal, iron and steel, agricultural implements, autos and parts, and packing-house products, in exports. It was estimated, on the basis of savings per ton on these commodities and total tonnage available for movement, that 7,741,500 tons might be exported at a possible savings of \$44,810,923; and 5,742,333 tons might be imported at a possible savings of \$34,082,207.

No attempt was made to estimate in detail the amount of purely domestic commerce but it was stated, in regard to domestic shipments, that typical savings, assuming return cargo available, were \$5.44 to \$12.64 per ton on lumber from Grays Harbor, Wash., to Detroit, Mich.; \$9.33 on class 5 commodities from Philadelphia to Chicago; and \$84.94 per ton on automobiles from Detroit to Los Angeles.

On the basis of Interstate Commerce Commission figures, it was estimated that, by 1950, there would be an increase in demand of 200 billion ton-miles of freight traffic compared with the 1929 peak, or at least 30 times the probable traffic via the seaway. The report concluded that "the seaway then cannot be viewed as tending to absorb existing railroad tonnage. The problem is in reality one of apportioning the new traffic in terms of the economic interest of the country." It added that the railways would benefit from this apportionment.

The report further analyzed the power aspects of the St. Lawrence development. It estimated that, if the two-stage development were adopted, 1,100,000 horsepower would be made available for the United States at \$81.57 per installed horsepower. As compared with the average cost of steam generation for New York of 10.65 mills,

St. Lawrence power could actually be delivered in New York City on an 80 percent load factor basis for 1.6 mills. On the basis of detailed estimates, it concluded that this power could readily be sold in New York and was urgently required to meet the State's growing power requirements.

The report concluded that the project should be undertaken without delay. It compared the value of the seaway to that of the Panama Canal and pointed out that it would provide widespread opportunities for employment. It stated, finally, that the completion of the seaway "will unquestionably confer important national benefits and stimulate the future growth and development of the United States."

## Section 10

### DEBATE IN THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES UPON THE TREATY.

The ratification of the treaty signed by the representatives of the Canadian and the United States Governments in July 1932, was debated in the Senate and House of Representatives of the United States in 1933 and 1934. In 1933 the principal subject of debate was the basis of the allocation of costs between the United States Government and New York State, and the use of the waters of the St. Lawrence River by the Power Authority of the State of New York. During 1931-32 an important controversy had taken place between the Federal Government and the Power Authority of the State of New York. On February 7, 1933, an agreement reached between the Power Authority and the engineers of the United States War Department fixed the cost to be assumed by the State of New York at \$89,726,750. It further provided for the public development of St. Lawrence power by the State of New York. This agreement was presented to the subcommittee of the Senate Committee on Foreign Relations and favorably reported by them in the majority report of February 15, 1933.

The joint resolution <sup>25</sup> was then drafted to give the agreement the full force of law. This resolution limited the cost of the works assumed by New York to the maximum of \$89,726,750. Since this resolution reduced the total cost to be appropriated by Congress, by the amount of the cost assumed by New York State, the resolution assumed great importance in the entire debate upon the treaty.

The resolution was introduced by Representative McReynolds of Tennessee in the House of Representatives and by Senator Pittman of Nevada in the Senate. In the House of Representatives the joint

<sup>25</sup> H. J. Res. No. 157, 73d Cong., 1st sess.; S. J. Res. No. 43, 73d Cong., 1st sess.

resolution was debated at length on April 25th and 26th, 1933. No opposition was expressed to the terms of the joint resolution, but the treaty itself was vigorously attacked. A motion to recommit the resolution, introduced by Representative Parker of New York, was defeated by 224 to 171. The resolution was then passed.

Upon its adoption by the House of Representatives, the resolution was sent to the Senate. Senator Pittman, Senator La Follette, Senator Borah and other Senators argued that, since the agreement of February 7th had been considered by the Committee on Foreign Relations and had been initiated in response to a request at the hearings, it should properly go to that committee for a prompt report.

This proposal was met by a filibuster by Senator Long and Senator Copeland, who contended that it should be referred to the Committee on Commerce, with instructions from the Senate to make an economic study of the Great Lakes-St. Lawrence Treaty before reporting the measure back to the Senate. The success of this filibuster led to a delay in the consideration of the resolution until June.

Since the Senate was due to adjourn on June 10th, the joint resolution was offered in the form of an amendment to the National Recovery Bill. In the absence of Senator Pittman, the amendment was offered on June 9th by Senator La Follette, who made public a letter from the President strongly urging the adoption of the resolution. Immediately prior to the roll call, however, Senator Harrison, in charge of the National Recovery Bill, stated on the floor that the amendment had no place in the pending bill and that he hoped it would be rejected. The amendment was then defeated by a vote of 59 to 20.

On September 14, 1933, an Interdepartmental Board was created by the President to report upon the navigation and power aspects of the Great Lakes-St. Lawrence development. On January 10, 1934, the President sent to the Senate a summary of the data contained in this report, together with a message in which he strongly urged ratification of the treaty and asked that it be considered from a national standpoint.

On the following day the Senate proceeded to consider the treaty. Debate upon the treaty was then continued as the first order of business until March 14th, when a vote was taken. Principal support for the treaty came from Senators representing the area tributary to the Great Lakes, with the exception of Illinois. Principal opposition to the treaty came from Senators in Illinois, Pennsylvania, New York, certain New England States, and States tributary to the Mississippi River.

The principal arguments used by both sides resembled in many respects those given before the subcommittee of the Senate Committee on Foreign Relations. The proponents of the treaty argued that

it would afford immediate and extensive relief to the landlocked people of the Middle West; it would expand coastwise trade and thereby benefit the seaboard ports; it would increase general prosperity and thereby give greater trade to the railroads, and it would afford both a great supply of cheap power for New York and a great source of employment for the American people. They charged that principal opposition to the treaty originated in financial and power interests in New York. They asserted that since both major political parties were officially committed to the seaway development, the Senators were, by inference, also committed to it. They denied that it would damage the interests of Chicago or of navigation on the Mississippi River. They pointed out, finally, that all impartial and expert surveys made of the seaway favored it. They, therefore, strongly urged its completion.

The opponents of the treaty placed far more emphasis upon matters of national defense than had witnesses before the subcommittee of the Senate Committee on Foreign Relations. They argued that the treaty involved the internationalization of Lake Michigan and thereby opened the way to internationalization of the other waters of the United States. They asserted that the treaty was for this reason prejudicial to national defense and was not constitutional.

Senators from Illinois and the States tributary to the Mississippi River further asserted that Army Engineers regarded the Lakes-to-Gulf Waterway as superior to the St. Lawrence Seaway. They maintained that the Lakes-to-Gulf Waterway was preferable because it strengthened national defense, it did not involve the expenditure of substantial Federal appropriations in Canada, and it benefited the Chicago Drainage Canal and power development. In particular, the Senators from Illinois made much of the charge that the maximum limit upon diversion from Lake Michigan to the Chicago Drainage Canal of 1,500 cubic feet per second, as set by the Supreme Court and officially recognized in the treaty, permanently damaged the City of Chicago.

Senators from the Atlantic and Gulf States further asserted that the seaway would greatly harm the seaboard ports. They argued that the estimates of the cost were unreliable and would be greatly exceeded. They denied at the same time that the savings of the waterway would be great, since international trade had suffered a permanent deterioration. They insisted that the railways would suffer a heavy loss in employment for which there was no compensating gain, and they maintained that the financial condition of the United States prohibited the substantial expenditures that the treaty project involved.

Throughout the debate no attack was made upon the public power aspects of the treaty.

Debate upon the treaty was concentrated during two periods, between January 12 and February 10, 1934, and between March 8 and March 14, 1934. Leading part in the debate was played by Senators Pittman, Vandenberg, LaFollette, and Norris, in support of the treaty, and by Senators Lewis, Clark, Copeland, Dieterich, and Long, in opposition to the treaty.

During the debate important statements were read into the record, including petitions by the mayors of Lake cities and the governors of 19 States, and a letter from the Honorable F. H. LaGuardia, Mayor of New York City, in support of the treaty. Further petitions favoring ratification were presented on behalf of numerous national farm organizations. Petitions opposing ratification were submitted from various commercial, business, and local interests and some labor leaders.

On March 12 debate was limited, and on March 14 the Senate proceeded to vote upon the resolution that the Senate advise and consent to the ratification of the treaty. The vote was as follows: 46 ayes, 42 nays, 3 paired, and 5 not voting. The treaty thus failed of ratification, since it required a two-thirds affirmative vote of the Senate.

## Section 11

### NEGOTIATIONS BETWEEN CANADA AND THE UNITED STATES 1934-40

As a result of the failure in 1934 of the Great Lakes-St. Lawrence Deep Waterway Treaty to receive the consent of the Senate of the United States to its ratification, the treaty was not submitted by the Canadian Prime Minister to the Dominion Parliament.

Due to the pending general elections in Canada which in 1935 resulted in a change of administration, with the Honorable William Lyon Mackenzie King as the head of the new Government, no further negotiations in regard to the matter were undertaken by this Government with the Government of Canada until 1936. However, during this time the matter was given further thought and the idea of negotiating a treaty to deal with the Great Lakes-St. Lawrence Basin as a whole, including the problems relating to Niagara Falls, took shape. Accordingly, on February 25, 1936, the American Minister to Canada was instructed to discuss with the Prime Minister the negotiation of a new and more comprehensive treaty, and the following December discussions were held at Ottawa between representatives of the two governments.

In March 1936, the President, in his message to the Seaway and Power Conference, called by the Great Lakes-St. Lawrence Tidewater Association at Detroit, stressed the necessity of a new approach

toward the treaty which would include full consideration of the problems of the Niagara River.

Following this conference, in which interest in the St. Lawrence development was reawakened, a Seaway Council <sup>26</sup> was formed, with Mr. Fred J. Freestone, representing the National Grange, as Chairman of the Executive Committee. The Seaway Council endeavored to create interest in the Great Lakes-St. Lawrence development and to support it with the active cooperation of the Power Authority of the State of New York, created in 1931 by President Roosevelt, while Governor of New York State.

The Province of Ontario was desirous of obtaining additional water for power purposes at Niagara Falls and became interested in the possibility of diverting water from the Kenogami River via Long Lake, both in the Province of Ontario, into Lake Superior. At the request of the Premier of Ontario the Canadian Government addressed a note to this Government on January 27, 1938, inquiring whether this Government would be disposed to enter into an agreement to effectuate this arrangement. In a note dated March 17, 1938, Secretary of State Hull replied that while this Government understood the needs of Canada and sympathized therewith, it was convinced that the mutual needs of both countries could best be served by a jointly planned development of the extraordinary natural resources in the Niagara and St. Lawrence Rivers. Secretary Hull added that this Government was ready and eager to enter into negotiations looking toward a mutually satisfactory agreement dealing with the varied and important problems of the Great Lakes-St. Lawrence Basin.

No further negotiations were undertaken, however, until May 1938, when the United States Government submitted to the Canadian Government the draft of a new treaty for the development of the Great Lakes-St. Lawrence Basin. In his note of transmittal Secretary Hull said: "The United States Government believes that the best interests of both peoples would be served by the immediate consummation of an agreement along the general lines of this treaty draft."

The next reference to the desirability of negotiating a treaty was made on August 18, 1938, when the President of the United States delivered an address on the occasion of the dedication of the International Thousand Islands Bridge. He stressed the advantages of the development of the Great Lakes-St. Lawrence Basin and warned of the dangers of delay.

On December 26, 1939, the Canadian Government addressed a note to this Government stating that the question of a proposed general

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<sup>26</sup> Consisting of representatives from the National Grange, Great Lakes-St. Lawrence Tidewater Association, Great Lakes Harbors Association, West Michigan Legislative Council, Northern Federation Chambers of Commerce, Minnesota Arrowhead Association, New York Power Authority, Champlain Valley Council, and the East Michigan and Ohio Ports Associations.



treaty for the development of the Great Lakes-St. Lawrence Basin had been under detailed consideration and suggesting that a meeting be arranged between representatives of the two countries for the purpose of clarifying a number of issues involved. To this note the United States replied on January 3, 1940, stating that arrangements had been made to send a group to Ottawa immediately.

Accordingly, on January 8-10, 1940, preliminary conversations were held at Ottawa and on January 22-24, 1940, further conversations were held in Washington.

The accelerated pace of developments in the European war necessarily delayed consideration of the St. Lawrence waterway project during the spring and summer of 1940. In the meantime, a defense program of major proportions was launched in Canada, and in the United States. The necessity of industrial expansion under this program impressed upon the administration in Washington and the Government of Canada the compelling need for additional hydro-electric power to meet the future requirements of industry in the Province of Ontario, and in the State of New York, particularly in high-load-factor industries.

Negotiations were, therefore, renewed with Canada, and on October 15, 1940, the State Department announced the following agreement:

In order to assure adequate power supplies to meet requirements of defense production in the northeastern part of the United States and in Canada, steps have been taken by the Governments of the United States and Canada to initiate immediately preliminary engineering and other investigations for that part of the Great Lakes-St. Lawrence Basin project which is located in the international rapids section of the St. Lawrence River. These steps have been taken in order that the entire project may be started without loss of a favorable construction season when final decision is reached between the two Governments. The investigations will be made under the direction of temporary committees to be appointed by the two Governments.

Meanwhile, to assist in providing an adequate supply of power to meet Canadian defense needs, and contingent upon the Province of Ontario's agreeing to provide immediately for diversions into the Great Lakes system of waters from the Albany River basin which normally flow into Hudson Bay, the Government of the United States has informed the Canadian Government that it will interpose no objection, pending conclusion of a final Great Lakes-St. Lawrence Basin agreement between the two countries, to the immediate utilization for power at Niagara Falls by the Province of Ontario of additional waters equivalent in quantity to the diversions into the Great Lakes basin above referred to.

Following this announcement, the President of the United States directed the Federal Power Commission, and the Corps of Engineers,

United States Army, to make preliminary engineering surveys and investigations of the dam site, as well as land titles, at the International Rapids Section. The President appointed an Advisory Committee of four members, consisting of Leland Olds of the Federal Power Commission, as chairman; A. A. Berle, Assistant Secretary of State; Brigadier General Thomas M. Robins of the Board of Engineers for Rivers and Harbors, Corps of Engineers, United States Army; and Gerald V. Cruise, representative of the Trustees of the Power Authority of the State of New York. This committee was directed to advise the President with respect to the project.

The President's message to the Congress of the United States, dated October 17, 1940, and the Executive order creating the St. Lawrence Advisory Committee, of October 16, 1940, are appended to this report.

Under the direction of Brigadier General Thomas M. Robins, the Corps of Engineers of the United States Army opened a district office at Massena, New York, and on November 2, 1940, started active work on the engineering surveys as directed by the President. The St. Lawrence Advisory Committee held several conferences at Washington, D. C., and Massena, New York, with a similar committee of Canadian representatives appointed by the Prime Minister of Canada.

In the meantime, the war abroad became intensified. Air attacks upon the British Isles wrought havoc upon the industrial cities of Coventry and Birmingham, and upon the ports of Southampton and Liverpool. Destruction of shipping both in port and upon the high seas reached extremely disquieting proportions. In November, Great Britain announced the purchase of large numbers of spare American merchant ships, and placed large orders in the United States for the construction of new ones. It became increasingly evident that ship construction facilities on the Atlantic, Gulf, and Pacific coasts were overtaxed. Orders already placed would occupy existing shipbuilding facilities for 2 years. Rear Admiral Samuel H. Robinson, Chief of the Bureau of Ships, United States Navy, stated in his annual report that costs of construction were increasing because, due to accelerated pace of expansion, obsolete and worn out equipment had to be used. Finally, it was obvious from the course of the war abroad, and the defense program at home, that new shipbuilding facilities would be needed not only in the immediate future, but for a long period to come. The United States must prepare to meet in the most economical way its own and very likely world shipping requirements. This is inescapable whether the European war continues, or is concluded with one or the other side victorious. The United States must supply the deficiency in shipping if the war is extended, or if Great Britain is victorious; or in case of a German victory, it must compete with the superior ship- and naval-construction facilities of the whole European and Asiatic continents.

The advantages of the Great Lakes area, the center of the steel and machinery industries of the North American Continent, in ship construction have long been recognized. Their availability, however, has been restricted by the limitations of the St. Lawrence River. During the World War of 1914-18, ships were built in parts and were carried to the Atlantic in sections. Again the thought has revived that ship parts could be manufactured in the Great Lakes area, and assembled at assembly plants on the Atlantic Coast, at a cost substantially higher than could be built on the Lakes.

All these factors pointed to one obvious conclusion. The St. Lawrence Seaway, long defended as a great improvement to facilitate normal trade relations, is even more important in times of emergency. This thought was presented dramatically by the President of the United States in a message to the Great Lakes-St. Lawrence Seaway Defense Conference held at Detroit, Mich., December 5-6, 1940:<sup>27</sup>

. . . . No one who has studied our national-defense problems and the international situation can possibly fail to see the need for this project in the defense of the continent. The Congress of the United States, in providing funds for a two-ocean Navy on a program covering many years, has properly recognized the essential place of sea power in continental defense. The world's merchant tonnage is diminishing at the rate of tens of thousands of tons a month. The distances which may be effectively covered by bombing planes are rapidly increasing.

Seacoast shipyards are already overtaxed with uncompleted construction. Shipyards on the Great Lakes, with access to the ocean, yet close to the sources of supply of labor, raw and finished materials, further removed from possible attack, may be a vital factor in successful defense of this continent. They will help to build the ships which will bring back commerce to the harbors of the Atlantic Coast ports.

<sup>27</sup> The full text of the address appears on pp. 37-39.

## THE PRESIDENT'S MESSAGE TO THE CONGRESS

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*To the Congress of the United States:*

The surveys of the Federal Power Commission and the National Power Policy Committee have convinced me that the development of the International Rapids Section of the St. Lawrence River should be undertaken at the earliest possible date as a part of adequate provision to meet the continuing power requirements of the defense program in certain essential centers of war material production in the north-eastern States.

The potential power at this site is best adapted to meet the requirements of expansion in certain essential defense industries, including aluminum, magnesium, ferro-alloys, chemicals, etc. Actually, the Aluminum Co. of America has recently arranged for the import of 30,000 kilowatts of additional power from Canada to meet the pressing requirements of its existing plant located at the very site of the proposed St. Lawrence project and, I am reliably informed, is seeking additional supplies from across the border. Such imported supplies are, in effect, on an annual basis, subject to being withdrawn if required by the Canadian power market.

It is urgent that this project be undertaken at the present time, not only from the point of view of our own defense but also in terms of those of our neighbor, Canada. The Province of Ontario needs to be able to count upon the early availability of this power to meet its growing load. The project may, therefore, be considered as an essential part of the program of continental defense which is being actively worked out by representatives of the two peoples.

I am informed that if the potential power of the International Rapids is to be available to carry the peak load of 1945, preliminary investigations, particularly engineering surveys of the site, including core borings, test pits, soil analyses, etc., must be undertaken immediately. I have, therefore, allocated \$1,000,000 of the special defense fund to the Federal Power Commission and Corps of Engineers, United States Army, for this preliminary work and have appointed a committee of four to advise me in planning the work and to cooperate with appropriate agencies of the Canadian Government. The members of this committee are Leland Olds, Chairman of the Federal Power Commission, as chairman; A. A. Berle, Assistant Secretary of State; Brigadier General Thomas M. Robins, of the Board of Engineers

for Rivers and Harbors, Corps of Engineers, United States Army; and Gerald V. Cruise, representative of the Trustees of the Power Authority of the State of New York. I have directed the United States Corps of Engineers to begin the necessary investigations immediately.

The preliminary investigations which I have authorized involve no actual construction or commitment to construct. In taking this means of advising Congress of the surveys I am having made, I wish to make it clear that Congress will be kept advised of such further steps as may be necessary.

FRANKLIN D. ROOSEVELT.

THE WHITE HOUSE, *October 17, 1940.*

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### EXECUTIVE ORDER

#### ESTABLISHING THE ST. LAWRENCE ADVISORY COMMITTEE AND PROVIDING FOR A PRELIMINARY INVESTIGATION OF INTERNATIONAL RAPIDS SECTION, ST. LAWRENCE RIVER

By virtue of the authority vested in me by the act entitled "An act making appropriations for the Navy Department and the Naval Service for the fiscal year ending June 30, 1941, and for other purposes," approved June 11, 1940 (Public, No. 588, 76th Cong.), and by the Military Appropriation Act, 1941, approved June 13, 1940 (Public, No. 611, 76th Cong.), and as President of the United States, and in order to provide for emergencies affecting the national security and defense, it is hereby ordered as follows:

1. There is hereby established the St. Lawrence Advisory Committee, consisting of Leland Olds, Chairman of the Federal Power Commission, as chairman; A. A. Berle, Assistant Secretary of State; Brig. Gen. Thomas M. Robins, of the Board of Engineers for Rivers and Harbors, Corps of Engineers, United States Army; and Gerald V. Cruise, representative of the Trustees of the Power Authority of the State of New York. It shall be the duty of the Committee to advise the President with respect to the matters hereinafter set forth, and to perform such other functions as the President may determine.

2. The Federal Power Commission and the Corps of Engineers, United States Army, are authorized, empowered, and directed—

(a) To make such preliminary investigations as the Advisory Committee may consider appropriate or necessary with respect to development of navigation and hydroelectric power in the International Rapids Section of the St. Lawrence River, including, among other things, (1) preliminary investigations of the potential dam site by means of core borings, test pits, soil analyses, etc.,

(2) preliminary surveys of the lands necessary for such development, and investigation of the titles to such lands, and (3) preparation of preliminary plans and specifications.

(b) To make periodic reports, with recommendations to the President, of the results of the aforesaid investigations.

(c) To consult and cooperate with appropriate agencies of the Canadian Government.

3. In the performance of their functions and duties under this order the Federal Power Commission and the Corps of Engineers, United States Army, may avail themselves of the services, records, reports, and information of the Executive departments and other agencies of the Government.

4. The Federal Power Commission and Corps of Engineers, United States Army, shall have authority to appoint, without regard to the civil-service laws, such officers, experts, and employees as they may deem necessary to carry out their functions under this order, and to prescribe their functions, duties, responsibilities, and tenure.

FRANKLIN D. ROOSEVELT.

THE WHITE HOUSE, *October 16, 1940.*

MESSAGE OF THE PRESIDENT TO THE GREAT LAKES-ST. LAWRENCE SEAWAY CONFERENCE AT DETROIT, DECEMBER 5, 1940. (DELIVERED BY MR. A. A. BERLE, JR., ASSISTANT SECRETARY OF STATE)

*To my friends of the Great Lakes Seaway and Power Conference:*

As I said in a message to your last conference 4 years ago, this assemblage of leaders from many sections of the country for a most practical purpose is a welcome and significant event.

I said then that "an opportunity is presented to complete a seaway comparable in economic value to the Panama Canal," a seaway to which "the public development of St. Lawrence power is inseparably linked."

It was then an opportunity. It is now a vital necessity.

The United States needs the St. Lawrence Seaway for defense. The United States needs this great landlocked sea as a secure haven in which it will always be able to build ships and more ships in order to protect our trade and our shores.

The United States needs, tremendously needs, the power project which will form a link in the seaway in the International Rapids Section of the St. Lawrence River to produce aluminum and more aluminum for the airplane program which will assure command of the air.

Selfish interests will tell you that I am cloaking this great project in national defense in order to gain an objective which has always been dear to me. But I tell you that it has always been dear to me because I recognized its vital importance to the people in peace and in war.

Let those who oppose the immediate undertaking of this project sit here at the center of the national defense effort in Washington and feel the pressure of the National Defense Commission calling for more and more power for our great aluminum plants and for other munitions industries requiring lots of cheap power. I am sure that they will know that the opposition which defeated the St. Lawrence treaty in 1934 was a mistaken opposition, based on failure to appraise the full needs of their country in the world situation which was even then developing.

What would we not give today, we who are responsible for the country's supreme defense effort, if the great St. Lawrence turbines were already in place, steadily revolving under the drive of St. Lawrence waters now running to waste, producing every hour of the day

1,000,000 horsepower to supply the expansion of our essential defense industries.

Had this project been started in 1934, as we urged, it would now be complete and occupying a place with other great projects, such as the Tennessee Valley in the Southeast, Boulder Dam in the Southwest, and the Columbia River projects in the Northwest, among the great national-defense assets of this continent.

No one who has studied our national defense problems and the international situation can possibly fail to see the need for this project in the defense of the continent. The Congress of the United States, in providing funds for a two-ocean navy on a program covering many years, has properly recognized the essential place of sea power in continental defense. The world's merchant tonnage is diminishing at the rate of tens of thousands of tons a month. The distances which may be effectively covered by bombing planes are rapidly increasing.

Seacoast shipyards are already overtaxed with uncompleted construction. Shipyards on the Great Lakes, with access to the ocean, yet close to the sources of supply of labor, raw and finished materials, further removed from possible attack, may be a vital factor in successful defense of this continent. They will help to build the ships which will bring back commerce to the harbors of the Atlantic Coast ports.

Opponents of the project have pointed out that it takes 4 years to build this Seaway. They know, but fail to mention, that it takes at least that long to build a battleship. They also know that this project will cost the United States less than three battleships and that the power project will be entirely self-liquidating.

We hope that the world situation may soon improve. But we are bound to be prepared for a long period of possible danger. Who can say, with assurance, that we shall not need for our defense or peaceful pursuits every possible shipbuilding resource, particularly those that exist and may be developed in the interior of our country? Only one who can say that we do not need the battleships that we are now building will dare to say that we do not need the essential Great Lakes-St. Lawrence Seaway.

The need for the Seaway is coupled with an increasing demand for the power. Already our defense industries in the Northeast have been required to import huge blocks of electric power from Canada. They are asking greater imports and Canada can agree to supply this power only temporarily. A new source of cheap power for national defense must be developed immediately.

Along with its benefits to national defense, this project will contribute to the peacetime welfare of a multitude of laborers, small-business men, home owners, and farmers. I said in 1936 and I say now, "such a development as we propose to carry out in the Great Lakes-St. Lawrence Basin unquestionably will result in greater activity for all



ports and transportation agencies. This has been the history of all new navigation projects and improvements directed to better commercial communication in this country and throughout the world. The fear that the Seaway will result in injury on the lower Mississippi or to our Atlantic ports is groundless."

What this project means to the ordinary man and woman cannot be too highly stressed. It means a more secure nation. It means a continent protected and served by the additional shipping built in inland shipyards. It means more industries, both defense and domestic, thriving on the cheapest power in history. It means more comforts in the homes of many cities and rural areas. It means more work for the ordinary citizen in shipyards, factories, and other transportation services connecting the center of this continent with this great highway to and from our national and international markets.

I am preparing to press for the immediate construction of this project. Because of its vital defense character I have allocated one million dollars of the defense funds made available by the Congress to make the necessary engineering surveys and to prepare the preliminary plans and specifications so that no time may be lost in starting the undertaking.

I am conducting conversations with our neighbor Canada to work out the international aspects of the development of this great common asset. I shall propose to the Congress of the United States, which will assemble in January, that it take the necessary steps toward completion of this St. Lawrence Seaway and Power Project, on which so much of our national safety and welfare depend.

FRANKLIN D. ROOSEVELT.