

Oftentimes I had to drive into remote and unsettled areas. I wanted to see the maritime resources and how close the different localities were to transportation. I wanted to gain some idea of the potential electrical development. Speaking for the moment about transportation—I shall have more to say about this later on—I found that there were many vicious bottlenecks through which trade within the provinces themselves had to pass. I found also that there were other vicious bottlenecks through which trade between the maritime provinces and the New England states had to pass, and through which trade from the maritime provinces and central Canada had to pass.

I had with me the reports of the reconstruction and rehabilitation committee so that I could select the parts of the provinces from which I could learn the most about resources and other matters I wanted to look into. The recommendations of that committee can be boiled down to three headings. The first is the extension of electrical production and rural electrification throughout the maritime provinces; second, the elimination of trade bottlenecks in the maritime provinces, to which I referred briefly a moment ago and, third, the expansion of maritime primary and secondary industries to process the four indigenous products of the provinces, that is, minerals, agriculture, lumbering and fishing.

I am going to deal first with electrical production, a matter in which I have always been much interested. I start with that because one of the ministers from the maritime provinces, in reply to a question—I am not sure that it was not asked by myself—as to whether or not electrical energy would be available if someone applied to the province of New Brunswick for a large block of power stated that New Brunswick was not very well equipped to supply large blocks of electrical energy but that if the water resources behind Grand Falls were conserved they would be able to supply a great deal more power.

I determined to ascertain if it were possible to increase the production of electricity at Grand Falls in New Brunswick. There are two principal factors associated with the production of electricity. The first is the head of water and the reservoir at the head of the penstocks. In this respect Grand Falls is not too badly off for the depth of water in the penstocks is about 125 feet and it is capable of being increased to 130 feet at high water. That is a fairly substantial head of water from which to produce electricity.

The next factor is the firm flow of water, and this is not so great at Grand Falls. At the present time under the best conditions there is a flow of about 2,400 cubic feet per second. They obtain this flow from a dam at the head of the falls behind which there is sufficient reservoir capacity to hold about 500 million cubic feet of water. Then they raised a dam at the outlet of lake Temiscouata, from which flows the Madawaska river and into which flows the Touladi river, and there they conserve another 4,500 million cubic feet. This gives them a total reservoir capacity of about 5,000 million cubic feet of water and from this they are able to obtain a firm flow of 2,400 cubic feet per second. From this flow they are able to produce at Grand Falls a total of 40,000 horse-power. This is not many horse-power when compared with Ontario hydro or Quebec hydro production, but it can be increased. Any increase in production will be of advantage to the province of New Brunswick and to the whole of the maritimes economy.

When I arrived at lake Temiscouata, I believe it was at the village of Cabano, I turned my car up into the highlands of the watershed of the Touladi river in the county of Temiscouata and continued for quite a long distance. I made a survey of the Squatteck lakes, having with me, of course, the reports of the engineers, and all I had to do was to ascertain where the reservoir sites were and go and see them, because I like to go and see these things for myself; I am not good at simply reading and repeating what somebody else has said. I saw these sites where another 20 billion cubic feet of water could be conserved. They also stated—and I examined the site to see if it could be done—that if the dam at the outlet of Temiscouata lake were raised two feet, another billion and a half of cubic feet of water could be conserved. If all the water in the watershed of the Madawaska river, which is the principal Canadian tributary of the Saint John river in Canada and supplies most of the water to the Saint John, was conserved, it would mean approximately 26 billion and a half cubic feet of water altogether above Grand Falls. That would mean that at Grand Falls they could have a firm flow of forty-two hundred cubic feet per second, which would produce another 25,000 horse-power. That would be a total of 65,000 horse-power, which would be a mighty smart block of horse-power in the centre of New Brunswick either for rural electrification or to promote primary or secondary industries.

To purchase these reservoir sites would require joint action by the provinces of