

## STATEMENTS AND SPEECHES

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### PETROCHEMICALS IN THE CANADIAN ECONOMY

An address by the Minister of Resources and Development, Mr. Robert H. Winters, at the opening ceremonies of the petrochemical plant, BA-Shawinigan Ltd., Montreal, East, Montreal, P.Q.

...There is more than one reason for commending the vision and enterprise shown by the British American Oil Company and Shawinigan Chemicals Limited in undertaking this project. It represents a linking of interests between the petroleum industry and the chemical industry whereby the knowledge and organization of two great companies are pooled to their advantage and to Canada's. I understand that a petrochemical plant of this particular kind is an entirely new development, and not for this country alone. For here a chemical process for converting cumene to phenol and acetone is being put into commercial operation for the first time in the world. That is why this plant is, we may be sure, the focus of more than usual interest and attention both in Canada and in other countries. It is not only introducing the first large-scale manufacture of phenol in Canada, but it is at the same time bringing down the cost of producing acetone. It will also make this country self-sufficient in both phenol and acetone. These products may properly be called "building blocks" of the chemical industry, because they enter into the manufacture of items ranging from paints and plastics to pharmaceuticals and textiles. The variety of their uses is a measure of the importance of this new enterprise.

#### The Canadian Petrochemical Industry

These ceremonies today have still further significance. They tell us that another stage has been reached in the growth of Canada's young and energetic petrochemical industry. The increasing use of oil refinery by-products is one of the most striking features of the chemical industry's recent history. Here in Canada this petrochemical industry experienced its first major development during the Second World War, when the Canadian Government established the Polymer Corporation at Sarnia to make synthetic rubber out of refinery gases. More recently, the rapid expansion of the Canadian chemical industry and our rising production of petroleum have encouraged petrochemicals to take on new dimensions. I have seen a figure indicating that capital expenditures on petrochemical plants in recent years may have amounted to something like \$125,000,000. That is over 60 per cent of the total figure for the entire chemical industry. Plants have been located in three main areas: in Alberta, depending on supplies of natural gas; in Sarnia, depending on the refineries at that point; and in Montreal East, depending on the four large refineries here. Not all of these plants have reached the production stage.

This new industry has gained some of its momentum from the discoveries of oil and natural gas made in Alberta since 1946. Just over six years ago Canada had only one important oil field, Turner Valley, and its production was falling rapidly. Turner Valley was capable of meeting only about 10 per cent of domestic oil requirements, and its remaining reserves were sufficient to provide only three months' supply at present rates of consumption. Since then the development of the new oil fields has increased Canada's production of crude petroleum seven-fold. Today Canadian petroleum provides almost 40 per cent of our much larger domestic requirements. Our proven oil reserves are about 40 times what they were in 1946, and our reserves of natural gas have more than trebled. Over the same period our oil-refining capacity has been enlarged by at least two-thirds. In that connection, I recall that it was just three years ago, almost to the day, that I had the privilege of attending the opening of British-American Oil's new fluid catalytic cracking unit. The introduction of new refinery capacity, of course, has meant that domestic supplies of the raw materials required in the production of petrochemicals have increased accordingly.

The story of petrochemicals in Canada has only begun. There is no telling what new chapters will be added to it as research in the chemistry of petroleum goes on. And it is, of course, intimately connected with the story of the chemicals industry as a whole, from which much of the demand for petrochemicals is coming.

#### The Canadian Chemical Industry

Let us therefore look at the Canadian chemical industry for a moment. If we take as our yardstick the number of people employed, we find that this industry has doubled in size since 1939. Today more than 1,000 plants across Canada are turning out chemical products. In 1951, which is the latest year for which we have full information, the industry produced goods worth more than three-quarters of a billion dollars. The expansion that its productive capacity has undergone in recent years has been an integral part of the expansion of Canadian industry generally. The chemical industry serves a host of others, which are becoming dependent on it more and more for the raw materials that modern technology requires. It has also been multiplying its contribution to our general health and welfare, as for example by providing us with a lengthening list of the new wonder drugs in the fight against disease.

I think it is correct to say that the development of our chemical industry has hardly reached the end of the beginning. I do not believe anyone here today would care to predict the course it will take over the next quarter-century. Whatever happens, however, the fortunes of Canada's chemical industry are bound up with the fortunes of Canada's economy as a whole. I should therefore like to have us look now at a broader picture.

#### The Expanding Canadian Economy

The Canadian economy is an expanding universe. Not only has our total production of goods and services doubled since 1939, but there is good reason to believe that

we are only at the beginning of a new period of major expansion. Our rapid industrial growth in the postwar period has coincided with the development of new and very rich resources of oil, hydro-electric power, and above all of metals. These two kinds of economic growth are at work together. As the London Economist has said, the pace they are working at would be remarkable in either alone; in the two combined, it is as exciting and impressive as any achievement of industrial civilization.

It is the story of great resources, human and material. The richness and variety of this country's natural wealth have made Canada one of the world's great producing nations. Our farmers harvest the world's fourth-largest wheat crop and our inland and ocean fisherman the free world's fifth-greatest catch of fish. Canada produces more than 90 per cent of the free world's nickel, half of its platinum and two-thirds of its asbestos. We rank second in zinc and gold production, third in silver and fourth in copper. More than half of the world's newsprint comes from Canadian mills. Again, although our population amounts to less than one per cent of the world total, Canada develops over 10 per cent of the world's electric power, and still has 75 per cent of its hydro-electric potential to draw upon.

Since these resources of ours enable us to produce more than our own requirements of many raw materials and manufactured goods, they have established Canada as one of the world's great trading nations. Last year the value of our commodity exports reached four and one-third billion dollars. That works out at 300 dollars for every man, woman and child in Canada, or very nearly one-fifth of our entire national production. In return, we bought four billion dollars' worth of goods from other countries. Only two countries, the United States and the United Kingdom, can report a heavier volume of foreign trade than Canada.

#### Recent Natural Resource Developments

The rate at which we are developing our natural resources stands out as the most arresting feature of our recent economic history. Last year resource developments accounted for something like one-quarter of the more than five billion dollars that we laid out for capital expenditures. Let us look at some of the great projects now spread out across the face of Canada.

I have already referred to the spectacular development of our western oil resources. Consider next what has been happening to a line of vital metals. Our national output of iron ore has already been raised from a mere 125,000 tons in 1939 to 5,200,000 tons in 1952. Going on from there, it is estimated that our production of this ore may reach 33 million tons annually within the next decade. The project that will contribute most to its expansion is located, of course, on the border between this province and Labrador. Even now, with much more exploration yet to be carried out, more than 400 million tons of strikingly highgrade ore have been proved, and something like a total of one billion tons indicated. Production is expected to begin next year with the mining of two and a half million tons of ore, and to reach 10 million tons by 1960. Given the St. Lawrence Seaway, this

figure could be expanded to 20 million tons annually. In this province, too, you have at Allard Lake what are believed to be the world's largest deposits of titanium ore, and, in the Gaspé, the great Noranda copper deposits.

Our production of nickel will soon be boosted by the Lynn Lake project in northern Manitoba, which in two years' time will give us an extra 8,500 tons annually. Again, the Kitimat development on the British Columbia coast is busy harnessing a massive block of hydro-electric power for what could eventually be the largest aluminum smelting plant in the world. This project will bring in about 85,000 tons of new aluminum capacity by next year, and could have an ultimate capacity of 550,000 tons. We can appreciate the magnitude of this second figure by comparing it with the 500,000 tons of aluminum turned out in Canada last year, and the 937,300 tons manufactured in the United States, which is the world's first-ranking producer.

Coming to the strategic metals, we know that this country has been an important source of uranium for some time. Beginning this spring, however, the mine at Port Radium on Great Bear Lake is no longer our sole producer. Indeed, when Eldorado Mining and Refining's new property in the Beaverlodge Lake area of northern Saskatchewan comes into full operation, its production may be more than double Port Radium's. There is no need to underline the importance of that fact.

And finally, let me just mention three developments in lead and zinc. First of all, in my native Nova Scotia the former Stirling mine on Cape Breton Island has been in full swing for a number of months now. The recent discovery of giant lead-zinc deposits in northwestern New Brunswick has been hailed as one of the most epic events in the whole history of the Canadian mining industry. Two thousand miles from there, extensive deposits at Pine Point on the south shore of Great Slave Lake are being thoroughly explored as the possible site of a really large-scale mining operation.

Impressive as they are, the resource developments I have been describing, and others like them, form only part of our economic expansion. I would, however, like to say just a word about Canada's rapid industrialization. One measure of this country's industrial growth is to be found in the use of our water-power resources. Our hydro-electric capacity has increased from 8.3 million horsepower in 1939 to 14.3 million horsepower today, or by nearly 75 per cent. We have lately been adding to it at more than two and one-half times the prewar rate. The total output of our manufacturing industries has grown to almost double its prewar size. Last year, for example, Canadian steel production was about 140 per cent higher than it was in 1939. I have already referred to the expansion of the chemical industry. And these are but examples of what has been taking place throughout the entire economy. Who can fail to be impressed by it all?

### Conclusion

In conclusion, let me say this. Canada is still a young country advancing rapidly in wealth and welfare. We have, I believe, something of the spirit of adventure

that characterized the first Elizabethan Age. One illustration of the initiative that Canadians can show is before our eyes right here and now. We know that we shall have our problems, and that some of them will be difficult and anxious. It could hardly be otherwise in the world we live in today. Yet when we take stock of our resources, both human and material, we also know that we can face the future with confidence and great hope.

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